



TIMELINE LTD

THE MORROW PROJECT



PRIME BASE

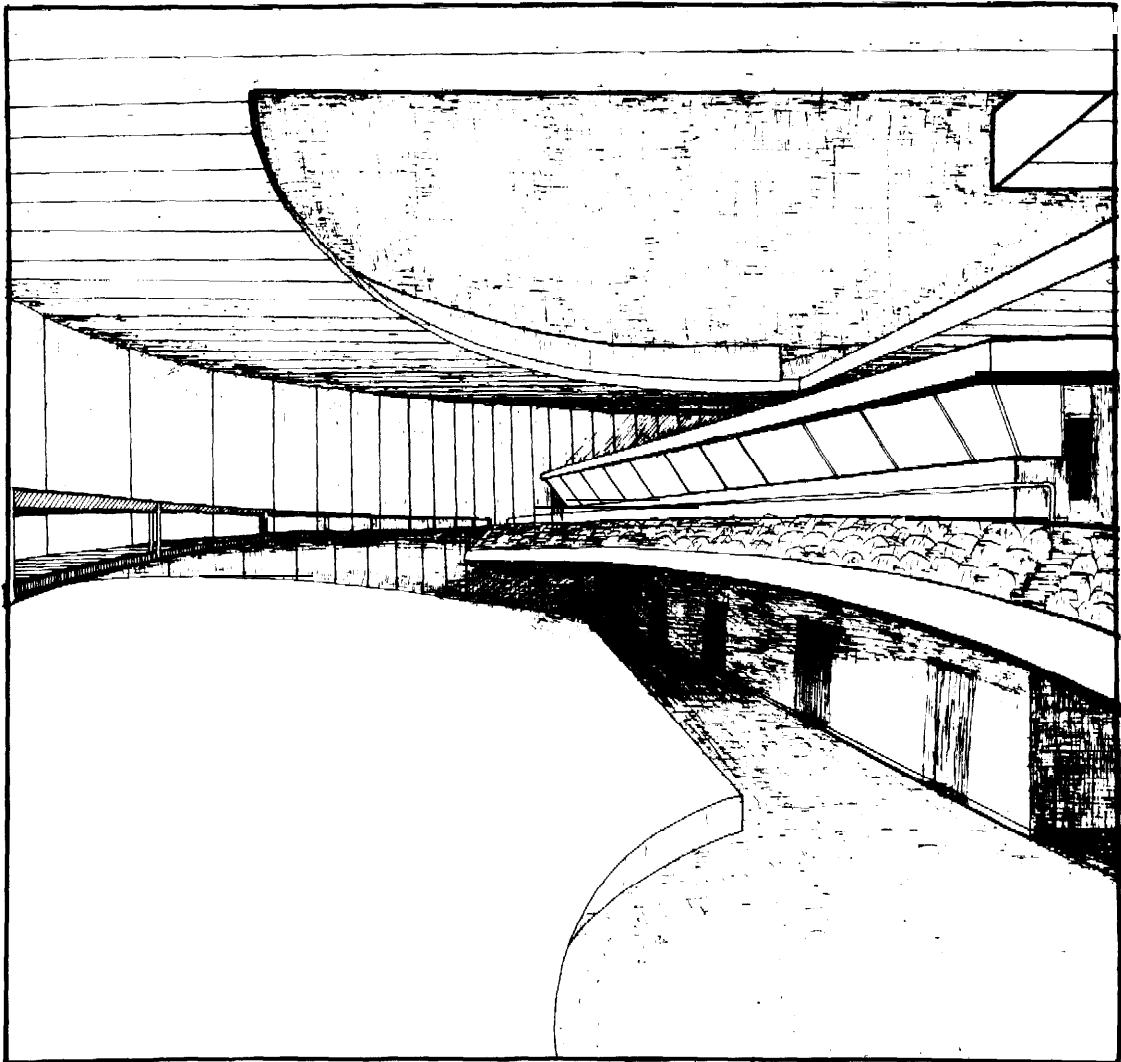
by H.N. Voss and W.P. Worzel

PROJECT FILE
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**THE
MORROW
PROJECT**

Project File 008

PRIME BASE



By

H.N. VOSS and W.P. WORZEL

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TABLE OF CONTENTS

Chapter 1 – Introduction	3	- Play of the Game	57
The Team	3	Level 10 – Hospital	58
Terrain and Environment.....	3	- Play of the Game	60
- Play of the Game	6	Level II-13 - Secondary Residential	61
Chapter 2 – Procedural	7	- Play of the Game	61
History	8	Chapter 6 - Support Cylinder	62
Construction.....	10	Level I-Farming	62
Doors	11	- Play of the Game	63
Emergency Power Grid	12	Level 2 - Farm, Distillery and Brewery	63
Emergency Lighting	13	Level 3 - Labs and Research.....	64
Base Telephones	14	Level 4 - Shops and Engineering.....	67
Prelude To Disaster	16	- Levels 3 & 4 Play of the Game.....	68
Disaster.....	17	Level 5 Printing	69
Final Deception	19	- Play of the Game	69
Grand Deception.....	20	Level 4 & 5 – Heliport.....	69
Chapter 3 - Entry To Base	22	- Play of the Game	70
Base Entrance..	23	Level 6 - Phoenix and GSS	71
- Play of the Game	25	- Play of the Game	72
Entry Tunnel.....	25	Phoenix Team..	72
Chapter 4 - Operations Cylinder	26	- Play of the Game	74
Level I-Security	26	Level 7 - Motor Pool.....	76
- Play of the Game	29	- Play of the Game	76
Level 2 – Personnel	30	Level 8 – Arsenal	76
- Play of the Game	31	- Play of the Game	78
Level 3 - Mission Operations	31	General Support Supplies	78
- Play of the Game	32	- Play of the Game	79
Level 4 - Branch Operations	34	Level 13 - Power and Light..	80
- Play of the Game	34	- Play of the Game	83
Level 5 - Commo Intercept	35	Annex	84
- Play of the Game	36	Annex Tunnel... ..	84
Level 6 – Communications	36	Exposure Module... ..	85
- Play of the Game	37	Mission Complex.....	86
Level 7 – Administration	37	- Play of the Game	88
- Play of the Game	40	Chapter 7 - Play of the Game	89
Level 8 - Morrow Lib. and Holographic.....	42	Timing.....	89
Level 9 - Technical Lib. and Holographic ..	43	Connecting Tunnels	89
- Level 8 & 9 Play of the Game	44	Krell	90
Level 10 - Situation and Briefing Rooms ...	45	Chapter 8 - Designer's Notes..	91
-Play of the Game	45	Chapter 9 - New Equipment	93
Level 11 - Holographic Map Viewing	46		
Level 12 - Holographic Map Floor	46		
- Level 11 & 12 Play of the Game	47		
Level 13 - Archives and Atlantis Liaison ...	48		
- Play of the Game	49		
Chapter 5 - Life Cylinder	50		
Level 1 - Quarters and Food Service	50		
Level 2-4 – Quarters.....	50		
- Levels 1-4 Play of the Game	51		
Level 5 - School and Day Care	52		
- Play of the Game	53		
Level 6 & 7 - Civic Center.....	53		
- Play of the Game	55		
Level 8 - Exercise and Recreation	56		
- Play of the Game	56		
Level 9 - Reading Library and Laundry	57		

1

INTRODUCTION

INTRODUCTION

As noted on the back cover of this module, the Morrow Project scenario that follows is radically different from all of the modules that preceded it. Prime Base is designed solely for experienced Project Directors (PDs) and Morrow Project players. It is assumed that players are familiar with the game and conversant with the rules and the mythos/history of the Morrow Project. The same is assumed on the part of the PD, who is enough expected to have used one or more of our modules for the Morrow Project in the past.

Where possible, this module follows the format of all of the other Morrow scenarios. But since this module is so different from its predecessors, much of the layout is different.

This is caused by the *philosophy* of this module. This module, unlike the seven that went before it, is primarily descriptive. It is a guidebook and catalog of Prime Base and its environs. Nearly all of the adventure has to be added by the PD and the players.

It is therefore important the the PD read this module most carefully, being cautious not to make too many assumptions linking this module to ones from the past: things may not be the same!

Continuity

Over the years, in the gamebook, modules and magazine articles, quite a few things have been said about Prime Base. Much more has been implied or hinted at.

Well, some of those things are true. Other parts (yes, even some that we said) are not. What follows is *the definitive* Prime Base. So just relax, read this stuff and use it, ignoring prior, contradictory information. As always, feel free to change or modify it to suit your own needs.

What sort of contradictions are we talking about? Well, the most glaring is on page 34 of the gamebook where it's mentioned that Prime Base, in one of the playtest worlds, was five levels deep. The implication is that the place can't be all *that* big.

Prime Base is huge. This apparent contradiction and others like it all stem from this fact: Prime Base has been floating around, in one form or another, since we first released the game. Work on it has been progressing continuously over the years. And, as the work has gone on, our understanding of what Prime Base needed, how big it was, what it was supposed to do, everything about it, has changed and evolved.

THE TEAM

Unlike previous Morrow Project scenarios, there is no bolthole in this module. The team must come from the outside and find their way to Prime Base. The P.D. can send them from wherever they last were via a radio message from Damocles (see PF-02 Damocles), information found in the resupply base near Starnaman (see PF-05 The Starnaman Incident), analysis of the planned flightpath of the Morrow Project satellite at the Johnson Space Center (see PF-06 Operation Lonestar), from the leader of the technical team at Power Station TN-7 (see PF-07 Desert Search) or any other way the Project Director wants to do it.

However the P.D. decides to play it, it is important that the Team does not know the exact location of Prime Base as this was a secret so closely guarded that only the staff of Prime Base ever had the detailed position of the base (see the Background Section that follows). Instead, the Team should know only its general location and must make their way cross country until they reach the area where the search begins.

By the time the Team reaches the area, they will probably be low on food, equipment, ammo, etc. There are no caches in the vicinity of Prime Base. You might say Prime Base itself is the motherlode of caches.

P.D. NOTE: The P.D. should keep track of the Team's expenditure of food, ammo and equipment as Prime Base is a long way from anywhere, and by the time the Team reaches the area, they may be critically low on supplies. Of course this just adds to the tension of finding Prime Base.

While the Team playing in this module should come from somewhere else, there is a team frozen in Prime Base. The Phoenix Team. The details and purpose of this team are discussed in the Prime Base section. However, The Phoenix Team members are designed to be non-player characters. Since The Phoenix Team is part of Prime Base the players cannot play The Phoenix Team as there would then be nothing to do in this module.

TEAM EQUIPMENT

No team is provided for the Prime Base module. It is assumed that the PD and players will be entering the scenario from an ongoing campaign. For this reason there are also no entries under the usual listings for Team Personnel, Team Equipment, the Bolt Hole or Team Vehicles.

The players bring to the area only what their characters/teams had in the course of their ongoing game, or what is made up/agreed upon by the players and the PD. Note that unless the Team was raised *quite* close by (an official impossibility; no teams were placed near Prime Base), there is no possibility of a nearby cache from which teams can "top off" their stores.

It is recommended that PDs bring the Team into the area by way of PF-07, Desert Search. This will serve to place the Team in the general area of Prime Base, a necessary rationale as no team in its right mind would otherwise journey to the Nevada desert. From the springboard of Desert Search, progress to Prime Base is easily run by the PD.

PDs who choose not to use the rationale of Desert Search for the hunt for Prime Base must come up with some other means for conning the Team into the area.

THE AREA: TERRAIN AND ENVIRONMENT

Prime Base was built in the desert hills in the northwestern corner of Nevada. It was surrounded by steep-walled canyons, razor sharp peaks and wind blown desert flats. Trapped between mountain ranges to the east and west, the few streams of the area disappeared into the nearby desert plains. The site was chosen because it is a harsh land where few travellers ever wandered and almost no one lived.

The average rainfall in the area was less than 10 inches per year. The extremes in temperature between daytime and nighttime, summer and winter were almost unmatched in North America. In July, the temperature soared into the 100°s. In January, it fell below 10°. It was a land where a lost traveller could die and never leave a trace.

The plant life of the area was typical of the Basin and Range

territory of Nevada. Cactus, thornshrubs, and a few stunted trees lived in the dry flats with cottonwood, ivy and other vines in the few water rich areas. On the heights, the pinyon pine which grew on the slopes gave way to a few stands of ponderosa pine and even some isolated white pines.

As with most deserts, the animal life in the region consisted mostly of small, water-efficient creatures such as lizards, spiders, snakes and rodents. In the high, forested areas there were isolated herds of mule deer along with the occasional mountain lion.

All of this changed with the destruction of Prime Base. The nuclear detonation and the bio weapon which destroyed Prime Base radically changed the area.

The hot springs and mud pools found in the area burst into new life as the heat and force of the nuclear explosion stoked their subterranean boiler. The biological agent eventually died off for lack of victims but its effect and the viral mutations which followed it changed the fauna of the area forever,

HIDDEN VALLEY

The area chosen for the site of Prime Base was a ridge surrounded by wild, barren steep-walled canyons. When Prime Base was built, White Rock Canyon was a typical, unappealing desert canyon with a permanent (if unappetizing) creek running through it. The promontory Prime Base was built into was at the tip of a north-south ridgeline which separated White Rock Canyon from nearby Soldier Creek and overlooked the open area of Soldier Meadow to the southwest.

The Black Rock Range to the east and the Calico mountains to the west were enough higher than the valley that they sheltered the entire area. The White Rock Canyon-Soldier Meadow area was a bowl-like valley with the unnamed ridge where Prime Base was located cutting through it.

Before the War, the entire region had been very active geologically. The volcanic eruptions which had formed the nearby mountains had finished their work in the last million years or so leaving behind extensive formations of rhyolite, welded ash and other soft, volcanic rocks. These rocks eroded easily into the steep canyons of the area and were none too stable. The engineers of Prime Base had to go quite deep into the surrounding rock to reach firm bedrock on which they could anchor Prime Base.

Though the volcanic eruptions of the area had died out, they had left behind a legacy of hot springs, sulfur pools and occasional, mild earthquakes. A number of the springs below Soldier Meadow were hot springs and they were the reason some of the streams and canyons had names like Smoky Canyon, Mud Meadow Creek, Warm Springs Canyon and Slumgullion Creek.

A series of earthquakes triggered by the nuclear explosion set off 10,000 years worth of landslides in the space of a few months. Hot springs, mud pots and sulfur pools burst into life throughout the region as the force and heat of the explosion stoked the cooling geothermal fires. A pair of volcanic cones 25 miles north of Soldier Meadow began a series of eruptions which blanketed the entire area with a black snow of ash.

The formation of Hidden Valley began with the lake which formed in the Soldier Creek half of the Valley. The nuclear explosion had triggered a landslide blocking off the mouth of the creek and so the water from the hot springs and creeks pouring into the crater formed by the blast had nowhere to go. Gradually the water backed up to within a mile of Prime Base forming a lake some 10 miles long and, at its widest, 5 miles across.

But the lake was not peaceful. Because of the mixture of cold and hot water, some of which came from springs beneath the lake, the waters of the lake steamed and bubbled, creating a dank, heavy cloud. On days when the Black Rock Desert, less than 5 miles away, was sunny and dry, there would often be rain in the area around the lake. Because of the surrounding mountains, the cloud caused by the steam had nowhere to go and hung over the area stretching from the lake up White Rock, Dry and Soldier Creek Canyons, shrouding it in mist and rain.

As the climatic changes caused by the War made themselves felt and the New Ice Age approached, the rainfall in the area

increased and the temperature dropped. The mists over the Valley grew thicker as the water pouring down the Valley met with the hot springs in Soldier Creek.

Tree-sized ferns began to grow along the shores of the lake and vines and other water-rich plantlife began to spread up the walls of the canyons. Strange orchid-like flowers and funguses the size of bushes grew up among the ferns and vines. A thick growth of trees spread through the Valley, but unlike the pine trees which had grown in the area, these were lush, almost tropical growths which fought for space in the crowded area. The area around the lake became a dark, steamy swamp where moisture dripped from the leaves of the trees, reeds and bushes that grew there.

The bio agent released into the area caused a plague which effectively killed all mammals in the area. But the lizards, snakes and other reptiles of the area were untouched. Predators and scavenger birds died, while the seed, nut and insect eaters survived. Insects were not only untouched, they thrived under these optimal conditions.

The effects of the increased radiation were subtler and more long term. To be sure, some creatures were killed outright by the intense dose of radiation that was channeled up the canyons, but a fair number of creatures survived and gradually flourished. The intense exposure to radiation caused an increase in the normal rate of mutation. The insects were effected the least, the birds somewhat more, and the reptiles the most.

The lizards became the dominant species in the area. The absence of mammals as competitors along with the increased rainfall and the accompanying growth of plant life made conditions easier for them and with the faster mutation rate, the larger lizards flourished and each succeeding generation was a little larger than the last.

Snakes mutated as well, but for them life was more difficult. Many of the snakes had lived off of mammals that were no longer around. Those that survived adapted by eating lizards and other snakes. In normal circumstances, these changes would not have been possible but once the right mutations appeared, the snake population expanded rapidly.

The insects in the Valley were changed the least. In form, they stayed much the same as they had been, but they grew. Dragonflies with wingspans of a meter or more appeared as did giant cockroaches, millipedes, centipedes and flatworms. Fresh water shrimp the size of a man's fist began to appear in the standing pools of water while the creatures that lived in the sulphur pools can best be left to the reader's imagination (or his nightmares).

The only real losers in this evolutionary roulette were the birds. Those that survived the initial troubles soon found their sources of food diminishing as the change in local climate drastically changed the plant life they lived on. The birds which lived off of the small lizards had a more serious problem as the lizards began to grow as big or bigger than they were. Soon the lizards were feeding on the birds! The only practical mutation in this case was for the birds to grow, but as they grew larger, they were less able to fly. A few species returned to the trees their ancestors had left but most of the birds either left the Valley or died out.

The most startling mutation of all was with the reptiles. Among the lizards of the Valley, warm-blooded reptiles began to appear.

These neo-reptiles had a number of advantages over their cold-blooded cousins. They were more capable of coping with temperature changes and so they could forage farther afield, sometimes even outside of the Valley. They were faster, smarter and they could eat a wider variety of foods. In general, they could fit a wider variety of ecological niches and they proceeded to do so, spreading throughout the Valley and even into some of the highlands around.

Hidden Valley Today

The mean elevation of the Black Rock Desert was less than 4,000 feet above sea level. The mountain ranges to its north (in which Prime Base is located) had peaks as high as 8,000 feet and

an average elevation of 6,000 feet. This change of 2,000+ feet is drastic. The mountain and rock walls of this area are hardly ever straight up and down but they might as well be.

The nuclear detonation and subsequent landslide that cut off Soldier Meadow from the rest of the world erected a wall across the Valley that is almost 6,000 feet in height. The Valley behind the wall has been filling with water for 150+ years and by the time the Team arrives the Valley will be full to the 4,600 foot level.

Now, the mean elevation of Soldier Meadow at its highest point (close to where the Base is) was about 4,500 feet. All of the rest of the Valley was lower, descending as it did toward the Black Rock desert and a lower valley elevation of 4,100 feet.

This means that the lake which fills the bottom of the Valley is deep. It is one hundred to five hundred feet deep in most places. Only around the edges is there anything like shallow water.

There is very little navigable land around this lake and none of it is flat. There is a narrow strip of land most of the way around the lake. This is rarely more than 500 meters wide and usually less and generally rises to a mean elevation of about 4,700 feet. Above this height the rock walls of the canyon begin to be too sheer to say anything about slopes.

The size of this lake, the sheerness of the canyon walls that surround it, the hot springs which feed the lake, and the climate of the outside world all conspire to provide this valley with some unique climatic features. For instance, the Valley/canyon is always blanketed by a permanent cloud. This cloud usually has its bottom at an elevation of about 4,800 to 5,800 feet during the day, but often comes right down to the surface of the lake at night. The top of the cloud is usually limited by the canyon which holds it in, so it seldom exceeds 6,000 feet. The cloud is much larger, more widespread at its top than at its bottom. It is thus much thicker at its base. On unseasonably cool days in the outside world this cloud can rise up out of the Valley entirely but it never completely goes away.

This permanent blanket over the Valley keeps the temperature in the Valley very high, but very constant. The heat from the hot springs keeps the water and the air above it hot. Sun shining down on the permanent clouds makes it still hotter. And the cloud keeps all of this heat in.

This results in a very dank landscape where nothing is ever completely dry. The cloud cover prevents direct sunlight from ever getting through and this allows for the growth of some funguses (along with the heat and humidity) to unheard of proportions.

There is rarely a breeze, much less a wind. The air is still, heavy, wet and cloying. There is usually a great deal of mist, limiting visibility drastically.

Many forms of plantlife thrive in this environment of heat and humidity. The growth along the strip of land that surrounds the lake is dense. It also tends to be very tall.

Other forms of life also find this climate delightful. Insects, in particular, grow marvelously large here (there are dragonflies a meter long and the mosquitoes they feed on don't even bear thinking about)! Centipedes and other scavenging insects also prosper in the Valley and, between the long term radiations and the plentiful food, have also grown to unpleasant proportions. Fortunately, most of the true desert bugs do not do well here; there are no scorpions, etc.

We are not going to say anything much about the aquatic forms of life that live out their lives in the lake. It's enough to mention that there are many forms of life which are related to sea creatures that live in the southwest desert right now. They become active when rain level permits enough water. The rest of the time they estivate.

Some of these include shrimp and other crustaceans. With the permanent water, the warm temperature, the plentiful food and the radiation, some very interesting crawlers and swimmers can be found. And since the water does not move much and receives no sunlight, the surface is alive too. Pond scum does not even begin to describe.

In short, the Valley is teeming with life and activity.

Though the plague has died out, few mammals have returned to the area. The combination of the hostile environment in the Valley and the fierce competition provided by the warm-blooded lizards has kept large mammals out of the area. However, in the last 100 years or so, the smaller mammals such as rats and bats have returned to live in the caves and other hidey holes of the area. The lizards of Hidden Valley view this with great delight and a number of the more agile reptiles hunt these small mammals in their lairs.

Big Lizards And Other Pets The Team Will Know And love

Several examples of the fauna of Hidden Valley are given below. The PD should feel free to use his imagination to supplement these examples. Remember that carnivores are usually outnumbered by more docile creatures by about 10 to 1 and that there is no room for a lot of big, man-eating lizards.

Veggie Lizard I

This is one of the largest lizards in the area. It is about 10-15 meters from head to tail. It has large feet with webs between its clawed toes which allow it to make its way through the swamps of the area. With its long neck it can reach foliage 5 or more meters above the ground. For the sake of variety it will sometimes have a bite or two of the muck found at the bottom of the lake along with anything and everything found in the muck.

This creature is not aggressive and will normally retreat into the lake if attacked. Its thick skin protects it from the heat of the lake and from most other things too. Its one enemy is the largest meat-eating lizard in the Valley.

If cornered or panicked, it will sometimes charge and attempt to trample its enemy.

Veggie Lizard II

This somewhat smaller lizard stands only about 5 meters high. It has strong legs which allow it to stand upright and support itself on the tree it is eating from. This gives it almost as much reach as its larger cousin.

Veggie II is relatively light in weight and can move at speeds of up to 20 mph on open flats. It seldom reaches this speed in the Valley due to the lack of open flats, but it can still move faster than most of its hunters and at need it can swim for short distances.

Its front claws are often used to pull off branches and stuff them into its mouth. It has a small head with eyes set on either side and a wide mouth, the better to stuff food into.

Omni Lizard I

This is the baby-sized lizard of the bunch, being only a meter to a meter and a half long. It lives in trees and eats the flowers, fruits, birds, insects or anything else it finds in the trees. It seldom comes down from the trees and has chameleon-like skin which automatically changes color to match its background.

It is the most intelligent of the lizards and given time, might even evolve into a sentient species. Its basic survival strategy is to hide from its enemies. It has sharp claws and teeth and can move quietly from branch to branch when it wants to.

Omni Lizard II

These lizards are particularly adept at getting at things in small places. They have narrow heads and long, snaky necks. They generally grow 4-5 meters long and move around on all fours.

Their front legs have strong claws which can be used for digging and, in conjunction with their long necks, they use them to dig into the lairs of creatures hiding in the mud or dirt. They particularly like rats and the other small mammals.

These creatures are very agile and can climb the slopes of the canyon more readily than the other lizards. They often climb out and hunt through the forests above and there is some evidence that they are spreading away from the Valley.

Naturally inquisitive, they will investigate almost anything that moves or catches their eye. However, due to the small size of the head and mouth, they cannot eat anything much larger than a dog (about 1 1/2 meters) and they prefer more "bite sized" creatures like rats.

Carnivore I

These small carnivores eat anything they can catch including snakes, small lizards and birds. They are about the size of a dog (about 1 1/2 meters long) and sometimes hunt in packs.

They are dark green and tailless and can move quite quickly when hunting. They have sharp claws and razor sharp teeth and will sometimes wait motionless for their prey to stumble onto them when they will pounce and break their prey's neck with their strong jaws.

They cannot swim but their relatively big feet and light weight give them support in the mud and muck around the lake.

Carnivore II

This is the granddaddy of all lizards. Standing up to 10 meters high, these big, aggressive hunters will eat anything but are particularly fond of the largest veggie lizards. Unfortunately, since these carnivores can only wade, they seldom get their favorites.

Perhaps this makes them mean, or perhaps its simply aggressive attitude. Whatever the reason, these lizards will rampage, eating anything and everything that gets in their way. Once they are finished feeding, they will often lie torpid for a several days before eating again.

These monsters move about mostly on their hind legs but, when in mud or other soft ground, they can move slowly along on all fours. On two legs the can reach speeds of over 30mph on flat, open ground, or, more normally, 10mph through the trees. When on all fours, they cannot move faster than 5 mph.

These creatures have large, spiky heads with teeth up to six inches long and a 2 meter long tail for balance when moving on two legs. Their front legs are about 2 feet shorter than their bigger, more muscular hind legs which is why they do not move too quickly on four legs.

Other Creatures

The PD should feel free to create his own nightmares. For inspiration, you may want to look at some of the mutated animals listed on page 57 of The Morrow Project Gamebook. In particular, mutated bats, dragon lizards, gila monsters, flies, mosquitoes, smothers and perhaps even snappers might be found in the Valley.

PLAY OF THE GAME

What do these conditions mean for the Team? As unpleasant an environment for human life as can be found anywhere on the planet!

The Team will have to approach the Valley from above; there's no other way in short of tunnelling through rock and mountain. It is likely that the Team will have been wandering around the ridges and mountains anyway, looking for something unusual that might signal the presence of Prime Base. There is nothing as unusual as this valley within hundreds of miles. This will be obvious to even the most hidebound of teams. There are many canyons and valleys in this part of the world, but only this one has a permanent, dense cloud in it. Only this one has a cloud that sometimes rises out of the Valley and spills out over the surrounding countryside. Only this valley shows signs of radioactive contamination.

The Team will not be able to see into the Valley as the cloud cover is much too thick. There is no good way to get a vehicle, any vehicle, down the sheer walls of the canyons. (And no vehicle would get far in the terrain below anyway; what you'd need is a boat!) The Team is going to have to walk, rope, or fall into the Valley. The best places to do this are at the head of the canyons and there are many of these leading down to the floor/lake below.

The Team will be spending a lot of time in the cloud that covers the Valley, for this is never less than 200 feet thick and often much more. It will not be possible to see more than 20 feet or so while in the cloud and night vision devices will not help. IR shows heat sources and the whole valley is hot! Passive devices amplify light, but here there is no shortage of light! Clouds dissipate the effectiveness of such devices, as anyone who has ever tried to use one in a dense fog knows.

As the Team descends they will grow warmer and warmer. The heat in the Valley during the day usually hovers around the 100°F.

mark, and never gets below 80°F., even at night or during the winter. But the constant 90%+ humidity in the Valley makes these temperatures seem much higher. The effect on the body is the same (or worse) as trying to operate in 130°F+ temperatures. The Team will begin to sweat and there will be no place for that sweat to go, it cannot evaporate in this saturated atmosphere. The bodies of the Team members may well be cooler than the surrounding air, which will cause more water to condense on them! Team members operating in the Valley are going to be soaking wet all of the time, no matter what they do, no matter what kind of rain gear they have.

They are also going to smell bad. One of the things they will notice during their descent into the Valley is the ghastly odor of the place. The heat, the water, the plant life, the animal life and the absence of fresh air or cleansing winds all conspire to make the place smell terrible! An unlined outhouse would smell fresh by comparison. And with the Team sweating, slogging through the ever present mud, and generally becoming immersed in the environment, they will soon smell just as bad.

Once down in the Valley things are worse. For one thing, it will be hard to see during the day, next to impossible at night. The mists and the clouds are dense, but even during the day the brightest the Valley ever gets is dim. The cloud cover keeps it that way, all the time. It is rare for the sun to even show a disk through the clouds. This distorts color, makes it hard to judge distances, identify objects, keep a course, and is very depressing to the average human being.

The air is also thickest and wettest toward the base of the Valley. Everything is wet, and there is no dry footing anywhere. The "surface" of the "ground" is usually a noisome mass of mud, decaying organic matter and unidentifiable sludge. It is not nice to walk in and it would be disgusting to fall into it, but that will be unavoidable under these conditions.

It gets worse before it gets better. The Team will surely be wet, miserable and stinking; they may also be lost. What will they be using for maps down here? The Project provides auto-navs in vehicles; not maps. If they somehow have a map of the area, how long will it survive this climate while being folded and unfolded? There are funguses down here that will eat just about anything (including Team members if they can) and paper is organically based and thin. Compasses are wonderful but they are of little use with a land environment which meanders around a lake. It's nice to know where north is but that's not much help when you don't know where you are.

The Team will probably be down in the Valley for quite a while too. While it's hard to get down into the Valley, it's even worse to get up out of it! There are more ways down in than there are ways up and out; especially for heavily laden Team members carrying tons of useless equipment.

What will the Team be eating and drinking while they're there? They may have brought food, maybe even some water but they can't have brought enough water, not for this climate. True, there's a whole lake full of water, but who is going to be the first to drink from it? To cut a hole in the scum, reach through and under it, and fill a canteen? How is the Team fixed for water purification equipment? If the water isn't treated, anybody who drinks it must roll on the scrofulous diseases table (not included). The least that will happen is a soul-searching bout with dysentery.

If anybody wants to start a fire they had better have brought everything they need with them. There is *nothing* in this valley that will readily burn. White phosphorous or thermite will get a blaze going but that kind of fire is not much use for cooking. Such a blaze will also go out here much more quickly than anyone might expect.

All of this will make people want to get to where they're going (assuming they have some idea where that is) in a hurry. But that won't be possible either. The ground conditions and the density of the vegetation will prevent fast movement. A Team that covers a kilometer an hour will be doing well; and they won't make that without backbreaking effort. Did anyone pack a machete? A fusion powered chainsaw would be real handy...

When it gets dark there are more problems. It will not be possible to see as there will be no light from moon or stars. The cloud coming down makes things even wetter and it does not get cool enough to matter. Some of the funguses do glow, parts of the lake glow, but is this good? It sure won't help. Where will the Team sleep? Is anyone going to be fool enough to pitch a tent (did anyone bring a tent)? Assuming that someone successfully passes the night in a tent, they may have trouble leaving it in the morning as it will have settled into the muck.

Was anyone left outside, on top of the canyon? Can they be called for help? How will they find the Team? Radio behaves in funny ways in canyons, particularly beneath thick, wet clouds.

Finally, there will be two kinds of animal life in the Valley: the kind that runs away from the Team to avoid being eaten, and the kind that might take an active interest in eating the Team. The former is of little interest and the Team will not see much of it: unlike the Team, all of the life down here is well adapted to the environment. If things want to slip quietly away, they will.

The latter type of creature can and will pose problems. It's not that the big lizards will be queuing up to see if the Team is tasty; the Team might spend days in the Valley and never see a big lizard (and they might be right next to one and never know it). There are not that many of them. The smaller lizards, while rapacious, are also cautious. It will be a while before some of them experiment to see whether or not a Team member tastes

as good as he looks.

No, the real threat is from the smaller forms of life. These will begin feasting on the Team at once. (Did anybody bring the Raid Yard Guard?)

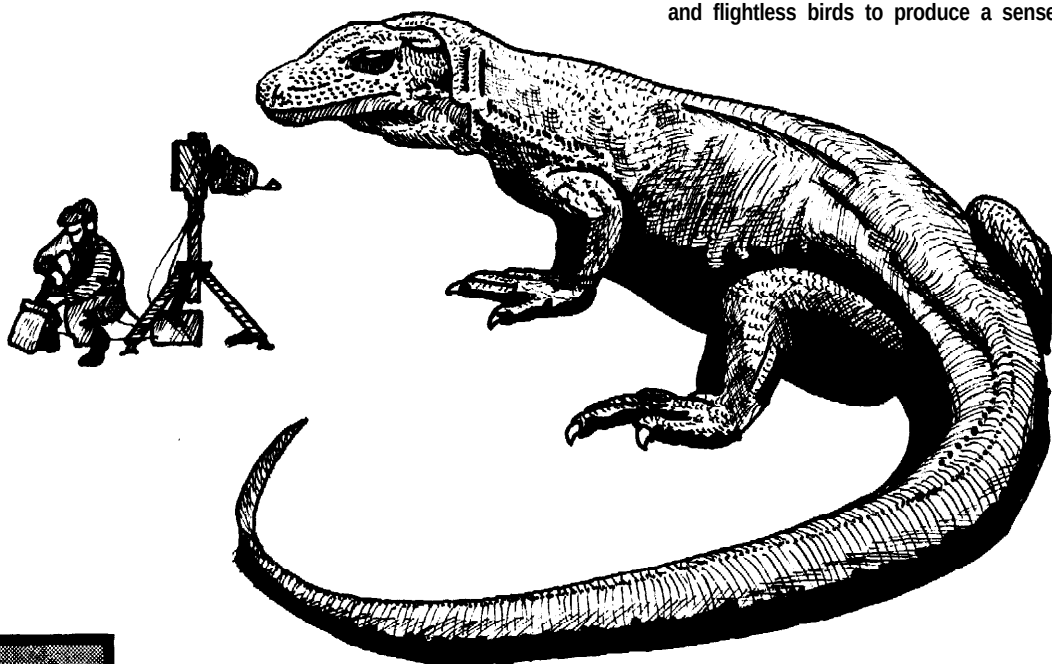
If the Team does not want to get out of this hell, there's something wrong with them. If they spend too long in it, they may never get out. The cumulative dangers are enormous. This is no place to get wounded.

It is up to the PD to get this across to the Team.

During playtesting, one of the things which most bewildered the players was the sudden change from normal, if hostile environment to the nightmarish Hidden Valley. The sudden change seemed to confuse them and without the apparent safety of their vehicle, they often floundered without plan through the Valley.

Only one team was foolish enough to try and bring their vehicle into the Valley. After much winching and trial and error, they finally made it down into the Valley where the vehicle promptly bogged down. They died a horrible death defending their vehicle to the last man, once again proving that teams who cannot function without a vehicle carry a large anchor around their necks.

Every effort should be made to emphasize the dark, dank, junglelike qualities of the Valley and the strangeness of finding it in the middle of a desert. This is best accomplished by not having a big lizard attack them every five seconds, but instead, using the smaller, strangenesses such as huge fungi, steaming lakes and flightless birds to produce a sense of unease among them.



2

PROCEDURAL

PRIME BASE: INTRODUCTION

As has often been pointed out in the Morrow Project game modules and other supplements, the Project was never intended to do all of the work of rebuilding civilization in the aftermath of the Third World War. As envisioned, the 3 to 5 year lapse between the active phase of the War and the activation of the sleeping teams would have seen the teams arriving in a world where much of the industrial infrastructure and, more importantly, a largish number of technical specialists would still be available to be co-opted by the Project.

The fact that Prime Base, the point from which all of this effort was to be coordinated, did not last out the "incubation period"

of the teams made all of the planning that had gone into the Project almost pointless. And yet, Prime Base was not destroyed. It was "taken out" but it was still there and likely to be of immense value to the remains of the Project if it could ever be located again. All of the records, the locations, the plans and the communications facilities, the supplies and the special equipment thought to be essential for the reconstruction of the North American continent were kept at Prime Base. With such tools in their hands, the inheritors of the Morrow Project might yet make a go of the Project's mission to rebuild civilization.

Prime Base is not valuable by itself. Yet there is not a field team of the Morrow Project anywhere who has not heard of Prime Base and who has not longed for that call, coming in the dead of night, that would herald the return of Prime Base to its envisioned role: to command, to control, to aid and support, to offer purpose and hope to men and women adrift in a strange world not of their own making.

The return of Prime Base means all of these things and more. It means the coming of order and purpose to lives that have been dulled in the pursuit of survival. It means the return of the idealism and high hopes that were once the very bedrock of the Project and the teams that set out to do an impossible job. It means a return to family and a reassurance that "we are not alone." It breathes new life in the entire Project and all of the dreams for which it stood. It says: "this is home."

Thus the reactivation of Prime Base begins a whole new chapter of The Morrow Project. It ends the period of uncertainty and terror that wore down the teams raised before its return and begins a new time of purpose where, battered but unbowed, the Project resumes its original goal.

The simple knowledge that Prime Base is there, no matter what condition it is in, will result in a morale boost to the entire Project out of all proportion to the actual aid that it can provide. It is worth having for this alone.

What is Prime Base?

Prime Base has become two things: the legendary center of the Project and the semi-mythical hope and dream of Morrow teams adrift in the post-holocaust world. Which of the two is more important depends on the game that the P.D. has been running. We will confine our comments to the physical aspects of the Base. But even to do this requires a digression into the history of the Project that lies far in the past for the members of the Team exploring the Base.

History

As mentioned in the introduction to The Morrow Project Gamebook (TM 1-1), Mr. Bruce Edward Morrow began his preparations for World War III in 1962. Even at this early date in the Project's history, it was realized that a command and control facility would be essential to the successful completion of the Project's mission. While a majority of the Project's personnel could "sleep out" the War in cryogenic suspension, this would never do for the command and control center of the Project. Somewhere there had to be a cadre of dedicated personnel who would "sit out" the War, aware of it and helpless to affect the outcome, but dedicated to observing it in order to collect data on the Fall. This information, obtainable in no other way, would be essential to the sleeping teams upon activation. To keep this thankless and hopeless vigil was the lot of the personnel of Prime Base.

This sinister aspect of their job was somewhat offset by the mission that would begin once teams were activated. Once the teams were awakened Prime Base would be the central point for the entire Project. All of Morrow control would find its focus at Prime Base.

Thus the mission of Prime Base was always twofold: on the one hand it was a passive mission of observation and data collection, but on the other it was a dynamic mission as the center for rebuilding a continent. Obviously the requirements for the first were not the same as those of the latter. The "data collection" mission could be handled by relatively few people. But when the mission of the Base entered into its dynamic phase, far more people would be needed. So Prime Base was designed to handle two entirely different population levels at two different times.

Only about 150 people were thought necessary to handle the initial mission of monitoring the greatest folly of mankind. In fact, fewer people could have performed the job, but the psychologists were of the opinion that the experience would have less impact if it was spread among more people, so the 150 person figure was adopted. A Base capable of handling the life support for even

150 people was a considerable task at the time, but the Project planners required a base which could handle this and more.

The "dynamic" phase of Prime Base's existence would begin soon after the bombs had ceased to fall and the planning began which would determine which of the field teams were activated first. This would depend upon the analysis of the overall effects of the War centering on questions of "What areas need the most help?" and "What areas, due to their own value and the fact that they are reasonably intact, will be the most useful in reconstruction?"

Answering these questions would tax the most capable specialists in the field. The Project did not have 150 such specialists. What they did have was a handful of dedicated professionals, and the planners endeavored to outfit these specialists with staffs that would augment their work and reduce the strain. This came to decidedly more than 150 people, though there was some overlap in skill qualifications.

But Prime Base would also have to be the nexus of information for the reconstruction. It would have to be the library for all of the technical data that reconstruction would require. Including a library was no problem, indeed such a base without a comprehensive library would have been ludicrous. But personnel to man the library, enough of them to listen to questions and then run down vital information and send it out again to the people whose lives depended on it, required even more people.

The planners also realized there was no substitute for personal expertise and first-hand knowledge in a field. The Project had many specialists, but it needed many more. Even given the nearly thirty years of lead time it had to prepare for the War, there was no way to gather all of the different types of experts that they would ideally have liked to have. It was thought, however, that many such specialists could be found after the War as field teams became active. Such people would be worth more than their weight in gold (a much overrated commodity in a bare-essentials environment) and it would behoove the planners of the Project to find a way to accommodate them in Prime Base.

Indispensable personnel have the disagreeable habit of being human. Being human, they often tend to have families, and can be positively beligerent about abandoning said families even in the best of causes. A way had to be found to accommodate families at Prime Base.

Humans require more than working facilities if they are to function optimally. "Off-duty" facilities have to be provided as well, especially in a community that was to be cut off from all outside contact for a period of many years.

Since the community was to be cut off from outside contact, it would have to be self-sufficient. Means of recycling, reclamation and production would have to be included. Personnel would have to see to these "housekeeping" chores.

There were also the "active" missions of Prime Base to be considered in its design. Eventually, it would have to provide direct support to many of the field teams. Equipment and personnel for these missions had to be accounted for as well.

In short, the problem was immense. A small city had to be created, with flexible accommodation facilities, to even begin to support the mission for which it was being designed. A certain amount of "fudge" was also essential as the planners well knew as they could not possibly account for all of the variables that were bound to crop up as the result of man's greatest experiment in self-annihilation. Prime Base would have to be huge.

The requirement that Prime Base be huge was at odds with the fact that it also had to be secret. Somehow, a way had to be found to build this enormous facility, staff it, and run it, while keeping it a secret from all but those who were in it.

It had to be kept a secret from the government, for the U.S. government takes a dim view of private, armed organizations existing within its boundaries (justifiably so, too). It had to be kept a secret from any possible enemy of the U.S. who otherwise might choose to include it among their targets within the U.S. It had to be kept a secret from the general population of the world

who, if they knew of it, might (quite reasonably) gather that the end was nigh and panic. Regrettably, it also had to be kept secret from the members of the Project as a whole. They could be told that such a place existed, but they could not be told where. What a man does not know he cannot reveal and while the field members of the Project were all trustworthy, no man can hold out for long under modern means of interrogation.

Nor could the Base be hidden under the guise of a small town (which is, in reality, what it amounted to), because the Base had to be proof against the effects of radiation, chemical and biological agents. It would also help if the Base was as nearly bombproof as possible, for while it would not be constructed near any conceivable target, there was always the possibility of "stray rounds" to consider.

These considerations all pointed to the fact that the Base would have to be built below ground. They further implied that it would have to be located far from any major population center or military target. It would have to be situated in an area where the vast scale of construction could be concealed by some sort of diversion. The question boiled down to two points: "Where is the enemy least likely to bomb?" and "Where can we hide this sort of shenanigans from our own government?"

A dissolute member of the planning staff (later fired for inefficiency and embezzlement), proposed the U.S. nuclear testing site in southern Nevada as the location for Prime Base. This was turned down out of hand for a variety of reasons. While it was thought (by the soon-to-be-cashiered member of the planning staff) that this was the location least likely to be targeted by an enemy, in point of fact the area was the scene of a variety of ongoing tests by the U.S. government, and so might reasonably appear on the lists of possible targets. Furthermore, the area might well prove lethal to any long-term inhabitants due to the radiation still present from past tests. Finally, there was absolutely no way in which large scale construction could be carried out under the eyes of federal authorities anywhere within the area.

Northwestern Nevada was eventually chosen instead. It was a long way from any conceivable civilian or military target, it was sufficiently isolated to allow a fair amount of large scale construction activity to go on under the guise of mining efforts and the terrain itself offered many advantages.

Prime Base came to be situated in the extreme northwest corner of Nevada, about 50 miles east of the California line and a little over 25 miles south of the Oregon border. The site chosen lay within the mountains known as the Black Rock Range, which lies just to the north of the large Black Rock Desert. The nearest paved road, Nevada 34, is about twenty miles away to the west.

The Summit Lake Indian Reservation was just to the north of the Base, but the Project had made its own arrangements with the residents, advantageous to both sides; there was never any trouble from that quarter. The nearest town, if it can be called that, was Gerlach, and even this desert-gas-stop was some 35 miles to the southwest. The nearest town of any size was Reno, over 100 miles away to the southwest. (And for those who are interested, the site of TN-7, the goal of the Morrow teams in PF-07, Desert Search, lies about 300 miles southeast as the crow flies. There are no roads that come even close to being a direct route between the two.)

Such a site is about as isolated as can be found in the continental U.S. The main reason why the area is so empty of everything including roads is that the terrain and the climate are hostile to human life. It is an area of what is known as "high desert", which means that it is characterized by mountains and rocks more than by cacti and sand. The terrain is even more rugged than what is found in areas more commonly thought of as desert. Details of the terrain were given in the Terrain and Environment section of this module. Suffice to say that: 1. Practically nobody lived nearby; 2. Nobody would want to visit such an area; and 3. Even if somebody wanted to, the terrain made it next to impossible to do so.

The isolation of the area made large scale construction of a secret Base feasible. Logistically (that is, getting the materials to the area), the construction problem was a nightmare. But with time and a generous budget this problem was overcome.

Prime Base was built slowly, over a period of more than 10 years under the guise of a mining project. Mining in this part of the world has been going on for over 100 years in a semi-systematic fashion. Successful operations have been relatively rare however and this has limited the amount of activity in the area. Thus mining operations come and go, and usually excite little comment and less attention. (in the case of a "big strike" things are different but the "miners" of Prime Base had no intention of making a big strike. If they had, they would have done their utmost to conceal the fact.)

So it was that the Morrow Industries Mine in the Black Rock Mountains never made much money but from what it produced it made enough to continue operations for over 10 years, albeit on a small scale. After 10 years or so the ore played out (the Base was completed), the mine closed down, the miners who went away and the few locals who knew of the mine forgot about it. After all, there are many abandoned mines in Nevada.

Finally there is the question of the terrain itself and the advantage it gave to the building of the Base. By referring to the map, it is easy to see that the site chosen was on a spur that separated two small river valleys which joined at the southern end of the spur. The outer walls (i.e., those forming the exterior limits of the river valley) were taller and more sheer than the slopes of the dividing spur. Thus the spur was lower than the surrounding valley walls and hard to see from anywhere outside of the valley. The valley itself had only three practical entrances: at the headwaters of the two streams and at the exit of the river they formed after they joined together.

Both of the streams began in small, steep canyons, indistinguishable from thousands like them in the area. Furthermore, both of these canyons were located on the property of the Indian reservation and so were not likely to be discovered by casual wanderers.

The two streams did not form much of a river, more of a creek really, save during the rainy season (which, in this area, comes every 6th year on the third Friday in January). This river ran down the valley and out onto the Black Rock Desert through a narrow gap in the Black Rock Mountains. Once in the desert it quickly vanished. The gap through which it exited the mountains was neither wide nor obvious. There being no roads in the area (for the very good reason that there was nowhere to go), the exit of the river was as likely to go unremarked as its source.

The valley itself was narrow, more of a wide canyon than a valley. As has been mentioned, its outer walls were steep. Assuming that it was entered at all, visitors would likely have to be lost to get there and anxious to leave once they'd seen where they were.

What all of this means was that the site was hard to find in the first place and, if found, had no attractions that might make someone want to stay. This effect was enhanced by the "miners" of Morrow Industries. A dirt road had to be put in for the mining operations and this led to the valley from the southern end — the area of the creek's exit. This was never much of a road and after the operation closed down it was a terrible road. It was a fact, though not an obvious one, that it would be faster and safer to drive to the abandoned mine off of the road than on it, (Though how would anyone know where the road went unless they followed it?)

In the unlikely event that anyone had the perseverance (and a sufficient quantity of spare axles) to reach the valley, the remains of the mine were less than appetizing. The lower waters of the river were fouled by sulfur and other minerals. The valley itself reeked of rotten eggs and other, more noxious stench.

The huts, dumps and pit latrines of the miners had not been cleared away and it was a toss-up to decide which was the more

noisome. The mine itself looked like an open-pit, strip-mining affair, situated on the spur between the rivers. This had largely been filled back in with anything that was handy. As a result it looked worse than the "camp". A great deal of loose scree and shale, mixed liberally with empty bottles, tin cans, and other garbage made the footing on the slopes of the mine very treacherous indeed. The entire valley had more the air of a landfill than a mine.

Some of the advantages of the terrain are obvious: the high walls of the valley rising above the site of Prime Base meant that the Base would have additional shielding from the immediate effects of blast and radiation during the War. The Base's needs for fresh water could be met by the two small rivers in addition to wells. The nature of the terrain meant that all of the approaches to the Base were easily defensible if that became a consideration.

There were also some less obvious terrain advantages. The area around the Base was geologically active: hot springs at the Base of the valley were responsible for the condition of the river, not the "mining" operations. This subsurface source of heat could be converted into energy to power the Base, thus reducing its dependency on nuclear power. The natural high temperature of the area would also help to conceal any unnatural heat emissions of the Base or its operations, or at the very least confuse the infrared signature of such emissions. (A very important consideration given the existence of IR sensitive surveillance satellites.)

The rock into which the Base was put was of volcanic origin. It was therefore easier to cut and work with in general and could be "mined" to a greater depth in less time than would be the case with harder rock. The nature of the volcanic rock also meant that many tunnels were already present in the area, thus simplifying matters still more.

All things considered, a better all around location for the Base would have been hard to find.

Construction Of The Base

Construction of Prime Base began in the late 1960s and was completed about 1980. The actual construction *could* have been carried out in less time, but not secretly.

All construction was carried out under the guise of the mining operations that were the cover for the project. The mining actually did pay off to some extent, although not nearly enough to match the costs of building the Base. A fair quantity of silver was extracted from the site, along with lesser quantities of other minerals. The ore trucks never left the site empty, if only for reasons of security. Less obvious was the fact that the huge ore haulers never *entered* the site empty. Every run saw these enormous vehicles bringing in the vital materials and equipment necessary for the construction and operation of the Base. The nature of the haulers, with their high, solid steel sides, prevented casual observation of this fact. And after all, who is interested in an ore hauler heading to a mine?

Construction personnel were transported to the site the same way. Trucks often carried a passenger or two, and who was the wiser that the same number of people did not leave with each load? Strip mining does not require a lot of personnel anyway, and a small camp was all that might be expected. A small camp was indeed all that ever showed in the valley. Since, for security reasons, a lot of time would be taken for the construction of the Base, a small construction crew was all that was needed.

The construction crew had to be small anyway, again for security reasons. Unlike many other Morrow Project activities, the personnel working on Prime Base necessarily had to know the reasons behind what they were doing. Thus all of the construction gang knew what was going on. Their number was kept to an absolute minimum and all of them were very carefully selected. To ensure final security, all of them were ultimately destined to staff the Base and so the only people who knew where it was were the people who were in it.

As underground portions of the Base were completed, permanent personnel moved into them and began operation of the Base or furthered its ongoing construction.

In the end, all of the people who knew the exact location of the Base became part of its staff. Other people knew of the Base, and a handful knew its approximate location. These latter were also provided with clues which might enable them to reach the Base in the event of some emergency. But ultimately knowledge of and access to Prime Base was the carefully guarded secret of its personnel. Even Mr. B.E. Morrow was not privy to the location; not wanting to be a member of the staff, he had no need to know its exact location. This level of security is the only reason why the Base did not succumb to sabotage before it did, for there were many people who did not want to see the Base or the Project come to fruition.

THE RELATION OF DESIGN TO FUNCTION

Three things beyond all others were deemed necessary to the operation of the Base and the completion of the mission. The Base had to provide for living areas or quarters, stores/supplies and rudimentary manufacturing facilities, and a command and control apparatus for the mission itself.

Given the length of time that the mission would cover, the number of personnel required, the unique mission itself and the remarkable conditions under which the mission would have to be carried out, a small facility to meet all of these needs was out of the question,

Further study showed that, all other things being equal, no one of the functions envisioned could be classed as more important than the other. Each was absolutely necessary to the mission and so to each of the others. In the end, study showed that each purpose would best be accomplished through areas of its own, designed to support that task and no other and that each of these would have to be as large as each of the others.

So Prime Base was designed to encompass three mutually supporting areas whose functions were tactically independent but strategically complimentary. Each would have to be very large, but the whole would have to be *huge*. Given the fact that the Base was to be constructed entirely beneath the surface of the Earth, one big cavern was out of the question too. Nobody knows how to dig a cavern that big! They exist naturally or not at all. Nor were there any known natural caverns that were large enough to hold the Base. (And a known cavern was no place to hide a secret base.)

Since construction technology was not capable of creating a single underground area of the desired size, and since nothing smaller would do, plans were made to break up the Base into smaller chunks built and buried separately. Given the preceding conditions, it was a natural decision to break the Base up into three parts in accordance with their functions. The areas were to be separate operationally, so why not physically too?

Therefore Prime Base was divided into three parts. The three areas of the Base were named for their functions:

1. The center for Base administration and mission operations, known as Ops.
2. The living areas and their support facilities, known as Life.
3. The center for supply and manufacturing, known as Support.

Each area was built separately and each was connected to the others. The design chosen for each of the three areas was externally and structurally identical to the other two, only in details did the three really differ.

The design chosen was radical. Three towers were constructed beneath the surface of the earth. The towers were cylindrical but tapered inward at their midpoints. Each tower was 50 meters tall, and 50 meters wide at its center but 70 meters wide at the base and the summit.

Had such a structure been built above ground, it would have been as tall as a 15 story building and would have resembled

the cooling towers of a nuclear power plant.

Construction of the "towers" of Prime Base below the surface posed some unique engineering problems. The "cooling tower" design was chosen for its unique structural strengths. Above or below the surface, it was the design offering the most expedient means of supporting enormous weight with the greatest stability. Unlike actual reactor cooling towers, the Prime Base towers were strengthened by a lattice of steel I-beams. This structured of supporting steel was indeed cylindrical and "stood out" from the wasp-waisted sides of the buried towers.

The walls of the towers, those which would serve to keep the ground outside and the Base inside, were made of poured concrete reinforced with steel rods. These walls were a uniform one meter thick. (And this was just as well. Built to withstand a near miss from an ICBM MIRV warhead, they had been stressed only once by a tactical nuke. This left them strong in the face of the 150+ years of time that they had to endure.)

The interiors of each tower were divided into levels (floors) and these were partitioned according to the needs of the services they would provide. Each tower had roughly 14 levels, usually divided into 13 floors. The physical floors themselves were about 1/3 of a meter thick and a crawlspace through which commo, air, water, etc. lines ran and could be serviced, was included between each floor save that on the bottom most level of each tower. The middle floor (or ring as they were known to the personnel of Prime Base) was always the narrowest in each tower, averaging 50 meters across. Each ring above and below this mid-level was 3.3m larger than the preceeding one until at each extreme of top and bottom the rings were about 70 meters across.

The three towers were set at equal distances from one another, forming the points of an equilateral triangle. Each was connected to both of the others by three tunnels, one each at the bottommost, topmost and middle rings. Thus each tower had six tunnels radiating from it.

Doors in Prime Base

Prime Base, like most any other place where humans live and work, had a lot of doors. These doors came in a variety of types and styles, as doors do, depending on their function.

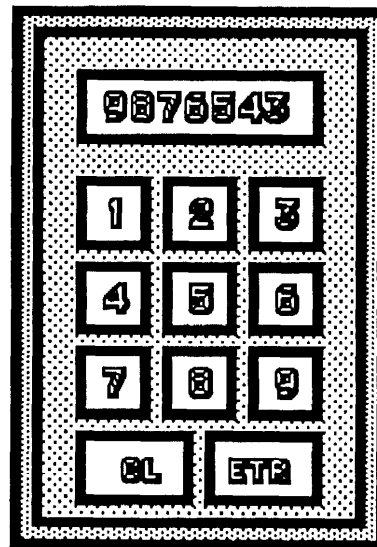
All of the usual types of doors can be found in the Base, from interior doors to closed rooms, to small access doors between levels, to large "cargo" doors in the warehouse sections, and many more. There were also types of doors unique to the Base.

The purpose of this section is to describe some of the more common types of doors found in the Base, and more importantly, how they operate. Note that we'll be talking about *common doors here*, special purpose or one-of-a-kind doors are described in the text in the section they are found in.

As a matter of policy, few doors were kept locked in the Base, but most could be locked if the need arose. There were a few doors and areas which were kept locked as a matter of course. And there were other areas that were locked or not depending on whether or not they were being used. Variations on this pattern are noted in the text.

There is also a wide variety of locks. The most common were those designed to be operated by an MPID, the MPID was in effect the key. Since everybody in the Base, with the exception of the smaller children, had such a card, such locks were usually coded to open for only some cards. The doors to residences are a good example of this kind of system.

There were also electronic "combination" locks. These locks were operated by means of a panel set next to the door, usually mounted on the wall to its right. This panel looked like the face of an electronic calculator, having several rows of buttons each marked with a number. To open the lock, one had to know the "combination" and press the right numbers in the proper sequence. Most combinations consisted of only three digits. Electronic locks, like key locks, did not have to be "on", there was usually a setting that would turn the lock off during periods of regular use.



Key locks were also present. While the "glitz" effect of the electronic lock is very attractive, the fact is that a combination once revealed or discovered, provides no security. And while it's true that any combination can be changed, one must first know that it needs to be changed. In practice one usually finds this out by finding something missing and changing the combination then is as useful as barring the barn door after the horse is gone. Key locks do not have the same problems, especially when there are a finite number of keys. True, keys can be made but the process is not nearly as casual as passing along a combination.

Some locks were more extreme. Some required both an electronic combination and a key to operate. Some of the electronic locks used a triple sequence of numbers in order to open and no one person had all of the numbers,

Following is a description of some of the standard types of doors and their locks found in the Base.

Interior Doors

These are the equivalent of the doors commonly found inside of any modern home. They do not provide security so much as privacy. If they lock at all, it is by means of a twisting knob lock, hand bolt, hook or other simple device. The materials these doors are made of varies, but usually consists of thin wood or plate glass. Even when locked, interior doors can generally be broken rather easily.

Area Doors

Area doors are much like interior doors save that they are always provided with locks, usually electronic. They are the kind of door designed to be secured against casual trespass. Department offices, file rooms, residences (though usually with an MPID activated lock), are all likely to have this kind of door. These doors are also designed to be fire doors, so they are somewhat sturdier than interior doors, but can still be opened by a determined vandal uncomcerned with damage.

Security Doors

These doors are, without exception, both equipped with locks and armored. Armored, in this usage, means that the doors are built to withstand the impact of bullets and casual explosives like hand grenades. These doors do not respond to shoulders or feet but improvised rams have been known to engage their attention. These doors frequently lock only from one side meaning that someone inside an area equipped with such a door can always leave.

Supervised Doors

Such doors are always of the armored type, but they cannot be operated from the vicinity of the door. Instead, there is always a station, usually nearby, where an operator/guard controlled the door and opened it remotely. When the operator was *nearby*, there was usually some means through which *he could see the far side of the door*. The most common arrangement was a booth

with armored glass. If there was no nearby operator, surveillance was accomplished 'through electronic communications and closed circuit television. These doors are rare even in Prime Base.

It must be stressed that there are other types of doors in the Base. Those presented here have been "standard" doors. 'Custom' doors, particularly those with vault-like functions and features, are detailed in the text.

Play of the Game: Doors and locks

There are too many doors in Prime Base to detail, one by one which ones are locked and which ones are not! When the P.D. wants to know whether or not a door is locked, he should first refer to the text. If a door was ordinarily kept locked, or was locked as a result of the Base "closing down," it will be noted there or in the related POG section, Doors that remain unlocked are hardly ever mentioned, since it was policy to keep most open,

So the official TimeLine position is: if it doesn't say it's locked, it isn't.

But PD's have a game to run. If you want to change things, if you need to change things, do so. But do be advised that we have playtested this module extensively and we have found that too many locked doors can bring the pace of the game to a grinding halt. Breaking down all of those doors gets boring, especially when, as in most cases, what lies on the other side of the door is just another office or janitor's closet. If you've got to use lots of locked doors, at least establish a procedure for bypassing the lock. Don't make players roll for each and every one.

Security and supervised doors are the exception to that advice. These doors should be handled on an individual basis. Another exception are the doors to residences. Most of these are locked and many have bodies on the other side of the doors as Base personnel often chose to die "at home" with some modicum of dignity. Players should have to break into a majority of these areas, if they are so inclined. The only good reason for doing so is to find out what is on the other side of all of those doors, and this can be established in all residential areas in fairly short order,

If players then persist in disturbing the dead (note: their own dead comrades in the Project), the only motive can be a repulsive form of greed or ghoulishness. In either case, the players should have to pay for their "fun" with tedium.

And there are, of course, keys and/or combinations available to all or most doors. These cannot be found at once, but when they are, things should be a lot simpler. Where they can be found will be mentioned later on.

THE EMERGENCY POWER GRID

Prime Base was self-contained in terms of its power requirements by virtue of the fusion reactor located on Level 13 of the Support Cylinder. This reactor supplied more than enough energy for the day-to-day operation of the Base under normal conditions.

But the people who designed the Base could not rely on the continuation of "normal conditions." They had to have contingency plans for situations out of the ordinary. Disaster had to be planned for.

The Base was a totally artificial environment Completely dependent on internal power. Loss of that power would not only jeopardize the mission of the Base, it would threaten its very survival. A power outage in a city or town is inconvenient. The same outage in Prime Base would be deadly. Suddenly there would be no heating, no cooling, no lights. Shortly the water would stop flowing and the air would stop circulating. Following that, the Base would die.

The fusion bottle that powered the Base was well designed and well protected. There was little fear that it would fail and less that it would be destroyed. After all, anything that knocked out the reactor was certain to have gotten the Base above it so there was no point in planning for that contingency.

But there was every reason to worry about local failures, disconnections from the main grid, and other hazards that might

reasonably occur during or following a nuclear war. There were areas and functions of the Base that had to keep working. The emergency power grid was designed to fill that need.

The emergency power grid (EPG) was much like the main power grid in that it served all of the areas of the Base. But it was unlike the main grid in two important ways. The first of these was in the area of back-ups, failsafes and fuses. The main grid had only one set of each. The EPG was a tertiary system having three complete sets of each and an automatic switching system that shunted power to a working area when one of the subsystems blew.

The other difference was in the power supplied. The main grid sent power wherever and whenever it was requested. Switch on a lamp or plug in a power tool and the main grid made it run. The EPG supplies power only to those functions/areas designated emergency areas.

The EPG came into operation one of two ways. If the main grid was interrupted then the EPG automatically came on line. Or the EPG could be switched on in place of the main grid (which might be done in order to effect repairs or maintenance on the main grid),

There were several modes in which the EPG operated. Which mode was used usually depended on the area of the Base and its function.

Automatic: In this mode the EPG supplied power, usually in the form of lighting, to a designated area. Power was constantly available to designated services.

Conditional: Some areas of the Base were on the grid, but power was supplied only when someone was in the area. This was usually effected through the heat sensitive switches found in many areas of the Base. (See the section on Base Lighting for details.)

Command: Finally, any area of the Base could be linked to the EPG so as to perform in a normal manner, in other words, as if it were on the main grid. This could only be done from the Power Control Center in Level 13 of Support through of the controls located there. Once done however, the area so designated would continue to function normally until someone went back to the Control Center and returned the area to standard functioning.

Prime Base has been operating on Emergency Power since before the last of its personnel died. Switching the Base over to the EPG was one of the last things done. The EPG supplies power to fewer systems than the main grid, and so uses less energy. The people "closing up" the Base were concerned to preserve power, so that the teams that eventually came to the Base would have some to work with.

When the Team arrives at the Base, they will be subject to the limitations of the EPG which is still operating. They will be able to return the Base to the main grid only from the Power Control Center on Level 13 of Support, and it's unlikely they'll figure that out in a hurry.

Exactly which areas and systems are on the EPG and which are not is detailed, where pertinent, in the Play of the Game section for that Level or area of the Base. Project Directors are, as always, encouraged to modify things to suit themselves.

There is, however, one type of "facility" that is common to all areas and Levels of the Base that will be dealt with here. Every Level of the Base has corridors, public or otherwise, even if these are just the "open spaces" around the Trans Core. All of these areas, unless specifically excepted, are on the EPG and operating in the automatic mode.

Playtesting showed that, during the course of the exploration of the Base, teams often became exasperated at the seemingly random availability of power in different areas.

EMERGENCY LIGHTING

Artificial lighting was extremely important in Prime Base for there was no other kind. When the lights went out in Prime Base, it got totally dark.

Total darkness in a vast, underground complex has, to put it at its mildest, adverse psychological effects on people. It is also impossible to continue the mission, any mission, under those conditions. Emergency lighting for Prime Base was a must.

All of the emergency lighting for the Base was centrally powered from the Emergency Power Grid (for details, see the EPG section). Emergency lighting was controlled in accordance with the operating modes of the EPG.

Some lights were always on. These especially included the emergency lighting in the corridors of the Base. The corridors, and many other areas of the Base, were all equipped with a standard type of emergency lighting fixture.

The standard fixture was a caged and shielded blue bulb of low intensity. It did not throw much light, but it provided a constant glow that dimly illuminated the surrounding area. Such lights were employed because they were reliable, used much less power than normal lights, and could burn for considerably longer periods.

Such lights are found in all of the corridors and public areas of the Base, including the areas in and around the Trans Cores. These lights are employed in elevators and stairwells.

Other types of lighting were also available under emergency conditions. Many areas of the Base were equipped with heat sensitive switches. These switches were set to register the presence of human body temperatures. When these were detected in the area for periods of ten seconds or longer, the switch activated and turned on the lights in the room. The switch also turned lights off when the heat sensor noted no body temperature for periods of one minute or longer.

These switches were developed by the researchers of Morrow Industries. Their primary purpose was to save energy. In Prime Base they were ideal. Such switches were usually paired with a manual override allowing personnel to choose whether or not the heat switch would be left in control.

These heat switches were not a constant part of the emergency power or lighting systems. But the EPG could be "programmed" to supply power to these switches on demand which occurred whenever anyone entered an area served by such a switch.

Finally, some areas of the Base could be, through programming of the EPG, designated Command Emergency Areas. In such cases, all of the electronic gizmos and whizbangs, including even the lighting, operated normally.

Emergency Lighting and Play Of The Game

Light, or rather its absence, is going to play a big part in the game. Assuming the Team penetrates into the Base itself, they are likely to be completely dependent on their own resources for light.

This is true because of the passage of time. When the Team enters the Base the EPG, and the emergency lights, will still be "on". But in those areas served by the automatic emergency lights everything is dark. It has been over 150 years: all of those blue lights have burned out.

Some areas, those equipped with special sensors or those for which special arrangements were made, still have power and light. The decontamination/entry area of the Base is a good example. But all of the rest of the Base will be dark when the Team arrives.

Heat sensitive switches will, therefore, play an important part in the game. Play-testing has shown that when players enter a room and are busy fumbling around in the dark, they are more than surprised when the PD says, 10 seconds later: "The lights just came on." There can be all kinds of panicking and shooting.

But these heat sensitive switches have another role in the game. They are only tied into the EPG in areas that the dying Base personnel thought were critical to operations. Sharp players can catalog all of the most important parts of the Base, without ever

knowing what they are, just by moving from room to room and seeing whether or not the lights go on. But, as stated, this will take a sharp player.

A couple more things ought to be said about the areas with emergency power and lights with the heat sensor controls. Other electrical items present in such areas, *if* they are the kind that draw power from the Base, will also work. (Dead batteries, on the other hand, are dead batteries and the EPG cannot help.) The lights and electronics in these areas still function because they have not been on for 150+ years. The Team's arrival represents their first activation since the disaster. But, since such power and light is directly linked to the EPG, the manual override switches that keep things on or off in spite of the heat sensors will have no effect. When people are gone from the area, the power shuts off.

Areas that are operating under the Command version of emergency power and light are going to be harder to find. Those areas are run by manual switches and the only way for the Team to find out what has power and what does not is by flipping switches.

Remember that the Team is likely to be coming into the Base completely *unequipped* (by virtue of the divestment proceedings in the DECON area of the Base entrance). They are unlikely to have flashlights, even candles, to get around with. The interior of the Base is totally dark to them and will remain so until they devise a source of light (tricky when you can't see anything to start with and have nothing to work with) or stumble onto an area with a heat sensor connected with the EPG.

just which areas are operating in what modes, or have emergency power and light at all, are noted in the Play of the Game sections for those areas and levels.

PDs are reminded that passive light intensification gear (night vision devices like the AN/TVS-5s) *do not* work in total darkness. Infrared is not much better, it just picks up the warm bodies around you and other heat sources, of which there are precious few in the dormant Base. IR certainly won't provide enough light to see by.

The Team is likely to be left in the dark for some time. Only the reestablishment of the Main Power Grid will make everything work again.

A few notes are in order concerning portable sources of lighting that the players may try to employ.

Candles: The Team will have these only if they have somehow managed to hang on to their gear *and* they specifically acquired candles at some time in the past. (The Project did not issue candles as part of the basic load.) If that is the case, the Team, assuming that they have or can contrive some means of lighting the candles, will have a source of light from the time they enter the Base.

Teams that do not enter the Base with candles *may* find some. Candles are fairly rare in the Base, but they do exist in two places. The first is in the residential units of the Life Cylinder. Many people kept candles against the threat of a power failure when the Base was thrown onto emergency power (which did not light the dwellings). Teams rumaging around in drawers *may* find candles and even matches (of course, 150 year old matches may not work). Stocks of candles were also kept in one of the warehouse sections of the Support Cylinder.

PDs should keep in mind that candles provide only half-hearted illumination. They also burn for only limited amounts of time. Any candles found in the Base are likely to be of the short and squat "storm" variety. This kind of candle does not burn for more than 6 hours. It's going to take a lot longer than 6 hours to explore a level, much less the Base.

Flashlights: Like candles, the Team is only likely to have flashlights if they've kept their packs but at least they were issued flashlights. The Team may also find flashlights in the Base but that won't help them. All of the batteries are long since dead.

Merciful PDs might include a few of the “plug-into-the-wall” emergency type flashlights for the Team to find. But even these will be useful only if they are powered from a socket that is on the emergency power grid.

Flashlights, like candles, have limitations. Foremost among these is battery life. If the Team is using lights that they’ve brought with them, the PD should keep in mind how much prior use these lights have seen. Even fresh batteries are rarely good for more than a hundred hours of use. If we divide that hundred hours into periods of 16 hours, a reasonable “working day” for personnel in the Base, we get only six and a quarter days of battery life. That is not enough time to explore three cylinders and thirty-nine Levels.

Field Expedient Light Sources: During playtesting no team ever had all of the light they needed; not until they found (if they did) the power control center and activated (if they could figure out how or got lucky) the Main Power Grid. This led to teams trying all manner of schemes to improvise lighting.

Torches were by far the most popular idea. The problem with torches is that, contrary to popular belief, they are not easily produced without fairly specialized ingredients. It is easy to produce a “fire on the end of a stick” but that is not a torch. Such a creation produces more smoke than it does light and burns out much more quickly than most people would imagine. They also tend to be about medium dangerous to the people using them. Real torches are difficult or impossible to make in the Base. Sources of “sticks”, binding, pitch, tar and liquid fuel are all, uh, limited.

What the player’s really need is something like hurricane lamps or old fashioned, kerosene burning railroad lanterns; and a 50 gallon drum of fuel with a wheelbarrow to haul it around on. A Coleman camp lantern would be just about ideal. We have not included any of these in the Base. If you as the PD want to, that’s your decision. One might reasonably suppose the existence of portable electric “work crew” lights, intended for the use of Base repair teams. But these would likely run on batteries too and may not be easy to find. . .

There is one bootstrap way to get light to travel with you in the Base. The emergency lights are all burned out, but the power is still there. If somebody unscrewed those lights and replaced them with “normal” lights from other areas, the regular light bulbs would work. It would be possible to move along the corridors of the Base with a handful of light bulbs, “leap-frogging” your way about, putting in working bulbs at the front of the Team and taking them out (and passing them for-wad) from the rear. This would be a depressingly slow way to get around, but it’s a relatively sure way.

It really ought to be mentioned that this last scheme was never thought of by any of the playtesting teams. This didn’t surprise us, since the method suggested is really outre and not likely to be thought of by any sane person. The fact is that there are no clues that would point to this solution. The Team would have to know several unrelated things and then make a “jump of imagination” to hit upon the idea. Maybe it’ll happen in your game.

Just for the sake of mentioning it; spare light bulbs are available in the stores in the Support Cylinder, enough for all of the emergency lights. But these too have to be found, and the players must know what to do with them before they will be of any use.

If anybody wants to try to replace all of the emergency bulbs, this will take time. There are thousands of them. We estimate that the job, using an 8 man team, 16 hours a day and doing nothing else would require two weeks to a month to get it all done. (The variable time is dependent on how good the organization and the plan of the Team for doing this is.) It’s not so much the number of lights, it’s the amount of time it will take to move from place to place, how often will people have to go back for more bulbs, etc.?

Note, too, that the light bulbs in the Base, even the burned

out ones, are exceedingly precious. There are not many in the whole world. For the time being, they are irreplaceable. A small facility exists, in the Maintenance Shop on Level IV of the Support Cylinder, devoted to repairing burned out bulbs. Will the Team recognize this for what it is and how important it is?

THE BASE TELEPHONE SYSTEM

Prime Base required a sophisticated telephone system for internal communications. This system was vital to the functioning of the Base. Because of this the phone system was included among the systems that received power on the Emergency Power Grid. Thus the phone system will be operational when the Team enters the Base.

Every area and almost every room in the Base had its own phone. Residences usually only had one phone each, and this was also the case for different areas in the warehousing sections of Support. Other areas might have several phones in the same room just to handle business as in some of the libraries and Mission Offices in Ops.

Technically, the phones themselves were unexciting and quite simple: they’d look at home in any home or office. Incoming calls caused them to ring or light up or both. Dialing was done by pushing buttons.

The central switching system, directory assistance, and the computer controlled automated system that ran all phone communications was located on Level 7 of the Ops Cylinder. The system was so sophisticated and “overpowered” for the Base that it could literally handle any internal volume of traffic. Calls outside of the Base, even before the War, were not possible. It’s not that they weren’t permitted, though they weren’t, it’s that there was no physical connection of any kind between the Base’s system and the outside world.

With literally thousands of phones in operation, a directory of phone numbers was established. This was disseminated through the Base in that most common of forms: a phone book. While it had no “yellow pages”, the book was still very useful. Aside from the fact that each contained every normal (as opposed to temporary) phone number in the Base, the book also contained a lot of other useful information. There was the usual selections of emergency numbers that would connect the caller with “police” (Post One in Ops), the local fire department (Level 7 in Ops), the hospital (in Life), and other services. There were numbers one could call to find out what the Base video system would be showing, what was going on at the “civic center” (Levels 6 and 7 of Life), even a number to call to learn the correct time. Of course, there was no number to call for the weather.

The phone directory was also the source of common maps. Nobody was expected to remember all of the ins and outs of the Base, and there would come a time when new personnel were brought in and would need some guide for getting around. The phone book was the logical place to put such maps and information.

The maps in the phone books are accurate but lacking in detail. All of those areas of the Base “open to the Public” are shown, but other areas are not. There is, for instance, no map of, nor even any *mention* of, the Area where the Phoenix Team is located. Other areas may be noted on the map, but their interiors are left blank; there’s just a name and a number. This is the case for areas like Post One and Post Two in Ops, and the Arsenal in Support. It is also the case for all residential areas and other commonly known spaces. (The PD may think of other areas he wishes to treat in this fashion.) So, while the maps are professional and accurate, they provide only as much information as one would expect from a sketch map.

The maps in the phone books showed only those areas within the three Cylinders of the Base. They did not, for example, show the entry to the Base, the tunnel leading to the heavy equipment bay, or anything outside of the Cylinders. Nor were there any maps of anything in the outside world.

Phone books were originally issued with each phone. Wherever there was a phone, there was a directory to go with it. Aside from the phones located in the residences and working areas of the Base, there were also a number of phones for "public" use, placed in commonly frequented areas of the Base. There was always one such phone on the wall of the Trans Core of each Level. More phones were found in other areas, like the open spaces of the civic center and the emergency rooms and lobby of the hospital. All had phone books with them.

There were also spare books and phones, more of the former than the latter. Lots of phones were provided, everywhere that the designers thought that there might be some need for them. But extras were kept in stores both for replacements and for installation as called for once the shakedown period of the Base was over and people discovered that phones would be handy in other places. More phone directories were provided because more people were expected in the Base and the phone book was much the center piece of the orientation packet that new personnel would be provided upon arrival.

Play of The Game and the Base Telephone System

As noted earlier, the phone system will be operating when the players arrive at the Base. This is not likely to be of much help to them initially.

The phone system, and more importantly, the phone books that went with it, were recognized as weak spots in the defense of the Base. It would not do for invaders to have access to reliable communications within the Base, or to maps of the Base!

The phones were not much of a problem without the directories. Invaders trying to use them would not know who or where they were calling. Especially since Base personnel, in preparation for fighting within the Base, had removed all of the numbers from the phones themselves. Furthermore, if it were known that the bad guys had taken a Level or an area, that region's phones could be rendered inoperative from the "Ma Morrow Phone Company" central control on Level 7 of Ops.

But the directories had to go. The maps were the worst problem, but there was other information in the books that might be vital to an invader. It wasn't practical to go around to all of the phone books and tear out incriminating pages or sections. All of the books were rounded up and stored in empty areas (the stores that had been in them having been used up in the last few years) of the warehouses in Support. A few of the books were destroyed, those on the first three Levels of the Cylinders, but the rest were saved. It was thought that they might be needed again if all went well.

So the Team that enters the Base will have working phone communications that will be useless to them. They'll know that the phones are at least potentially operational if they pick up one and listen to the receiver as there is still a dial tone. But without phone numbers (or indeed, anyone on the far end to pick up the phone), it won't do them much good. It will be a matter of blind luck if they pick up a phone, punch in a number, hear a ring from down the hail. They'll never get the system to work for them without help.

The most likely source of help will come in the form of the odd phone directory. If they ever find the pile of phone books squirreled away in a warehouse in Support, they'll not only have the key to calling around, but a set of highly useful maps of the Base.

We have said that all of the phone books have been accounted for. (Remember, each had a serial number for accountability!) But you might want to leave one around for a team to find.

But bear in mind that most of the people who play this game will, upon being told that they've found a phone book, ignore it. Who wants to look through a phonebook!

TRANSPORTATION AND STAIR CORES

One thing that all cylinders and levels have in common is the Trans Core. There are three of these, one for each of the Cylinders. Each core stretches from the top to the bottom of its cylinder, passing through the center of each level.

While these cores do serve to strengthen the structure of each cylinder, their main purpose is non-structural. The cores are where most of the stairs and elevators are. As a result, the cores, with the connecting tunnels between cylinders, are the primary ways of getting around in the Base.

Each core contains both stairs and elevators. The usual number of these is:

- 8 passenger elevators
- 1 stairway
- 1 freight/heavy load elevator

The above is the case only for the cores in the Ops and Life Cylinders. The core in Support has 4 passenger elevators, 1 stairway, and 1 freight ramp. The Supply core will be described in the Supply Cylinder section. The following information pertains to the cores in Ops and Life.

Referring to the diagram below, each core takes up a square area in the center of each level and is 9.2 meters (or just over 30 feet) on a side. Passenger elevators are found on the east and west sides of the square. These are numbered 1 thru 8. Elevators 1-4 are located on the west side, 5-8 on the east and all are numbered in ascending order going from north to south.

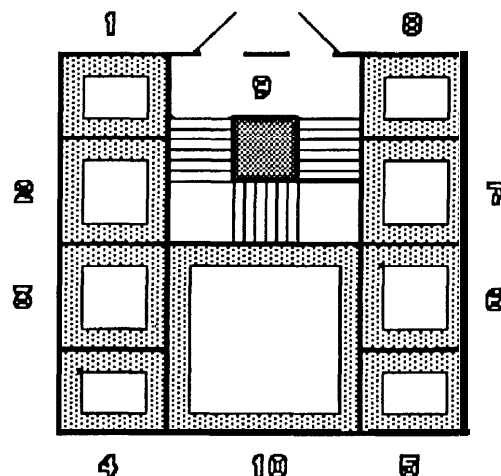
The elevators are arranged in such a way that some can always be entered from whichever side of the core you are on. Elevators 1 and 5 have doors on the north side of the core. 4 and 8 face the south and 2 and 3, 6 and 7, all face west or east respectively.

The elevators are controlled by a row of "floor buttons" one for each level of the cylinder and each elevator can hold up to 9 people comfortably.

The stairway in each core is located on its north side where swinging double doors give access to it. (The doors, while a nuisance, were included for reasons of fire safety.) Each stairwell contains two sets of steps, one leading up, the other down (except on the highest and lowest levels where, for obvious reasons, only one is present). The stairs are quite roomy, being 2.3 meters (or about 7 1/2 feet) wide, adequate for traffic to pass in both directions without crowding.

The freight/heavy load elevators are located on the south side of the cores. They are typical freight elevators: slow and ugly. They were not meant to haul passengers, though they can do so. The floor space of the freight elevators is about 4.5 meters (or about 14 feet) on a side; nice and roomy. The cargo capacity for each is 16 tons. The elevator can move 36 people without undo crowding.

The Trans Core is not on the EPG. As a result, there is no power to run the elevators. However, the stairs still work...



PRELUDE TO DISASTER

How was Prime Base destroyed? What made the calamity that depopulated the Base possible? The chain of events that caused this disaster is related in the following text.

Two years and a few months after the War, Prime Base sent its first probes into the post-holocaust world. The automated contamination monitoring and detection equipment of the Base was then showing marked reductions in the hostility of the outer environment. The ecological situation had improved to the point where it was possible to think about getting the "real" mission underway. But this was not going to be done until some people had gone out and looked the situation over.

Several small teams were sent out from the Base, primarily to take instrument readings from areas farther away, but also to see what things looked like. This effort necessitated the "opening" of the Base to a limited extent: the vehicles, equipment and teams themselves had to get out. The entry to the Base near the heavy equipment bays was activated for this purpose.

The teams that ranged out from Prime Base accomplished their missions without incident. All climatic indicators agreed that it was now possible to get the Mission moving. It was also obvious that waiting a few months longer, maybe even a few years more, would provide even better conditions. For while the areas within easy reach of the Base were not terribly lethal, this was not going to be true of much of the rest of the Continent. Prime Base had been sited purposely to be in an area of minimal contamination. The conditions that applied in other areas were going to be worse.

The returning teams also made reports on what they had seen in their travels: and very little of it was good. The War had not hit Nevada and the nearer areas of California and Oregon very hard; at least not directly. Not many weapons had been used in the region. But the region itself was not a productive one. No effort had ever been made to make it self-sufficient. Without the rest of the country to support it, the people who lived there could not survive.

The ersatz Recon teams sent out by Prime Base saw very little of the direct effects of the War. They saw more than they ever wanted to of the indirect effects. Wherever they went they met death; and people struggling, usually hopelessly, against it. There were not a lot of survivors in the area since most had already succumbed to the harsh post-war conditions. What survivors there were were most often pathetic, shocked people trying to scrape a living from the barren, hostile land.

The reports of the returned teams sparked heated debate among the Base's personnel. There was never any difference of opinion on one point: everybody wanted to help these people. But there was a great deal of argument over how this should be done.

The debate did not last long. Nobody was interested in prolonged politicking when people were dying. A decision was made to form a colony.

Plans for doing this had been discussed before the War. There were reasons for doing so, there were reasons not to do so. Chief among the reasons for trying it was rendering aid to people who were desperately in need of it: the whole purpose of the Project. Almost as important was the valuable knowledge that would be gained through such an experiment, Prime Base would be in a unique position to get some hands-on experience before any of the Field Teams. What they learned, through success or failure, could be passed on to others. Mistakes by Prime Base need not be repeated in the Field. Conversely, successes could be repeated. Less time would be wasted, more lives would be saved.

But there were also unique dangers to Prime Base's sponsoring a rebuild effort on its own. Foremost among these was the possibility of the Base's location becoming known to hostile interests: and the Project *knew* that there were people around that were unfriendly. A disaster at Prime Base might compromise the entire Project (as it did).

Of the many plans that were discussed for getting Prime Base directly involved in the Mission after the War, only one was considered viable. This was the formation of a "colony".

This colony might best be thought of as a model Morrow community. A small store of strategically important equipment was provided to the Base to establish this community. A small number of personnel would be required to get things going. A site for the colony would be chosen far enough away from the Base to keep it out of sight, close enough so that the Base could provide some support. Personnel and equipment would move to the site to help "set up housekeeping" and as people arrived the community would grow. Eventually it would be self-sustaining and the Morrow personnel would withdraw.

Presumably they'd repeat the process elsewhere. (Every other direct aid plan revolved around taking aid to the people instead of letting them come to it. These had to be rejected. Prime Base did not have the personnel, the transport or the supplies to make it possible. Such aid was also seen as being only a "quick fix" that could not go on indefinitely anyway. In the end, the people would have to do things for themselves. This would happen quicker and easier if they started that way.)

The planners of the Project never reached agreement on whether or not Prime Base should risk direct involvement and start a colony. Instead, the necessary materials and equipment (minimal in both cases) were included in the heavy equipment inventory of the Base and the final decision was left to the Base Director (who'd have to decide anyway). The planners left only the admonishment to be careful, and to be parsimonious with the Base's supplies.

The site chosen for the colony was between three and four kilometers south of the Base in the "pass" between the Black Rock Range and the Calico Mountains. Here, beneath Pahute Peak, was a valley of reasonably flat land that was permanently watered by Meadow Creek (the stream that both Slumgullion and Mud Creeks flowed into). One branch of the Black Rock Desert began only a kilometer or two to the south, while the canyon that Prime Base occupied closed the gap to the northeast.

This sheltered area was considered a good one for a modest community. It was thought that the creek flowing throughout the valley could be dammed and the water used for irrigation. This would allow for sustenance agriculture which could be supplemented by grazing livestock on the higher ground of the canyon floor to the north. Life would not be fancy but it would be a whole lot better than what was being offered most other places. It would do for a start.

Base personnel began the low level construction and engineering tasks that would make the town possible. The Teams that had gone out before went out again now; this time to find people and let them know there was a place they could go. The idea was to spread the word but in a quiet way. Nobody was going to be forced to move, nor was the Project going to supply mass transportation: if people wanted to come, they would. (Though transport was provided where necessary and where it made sense to do so.)

In this way word indeed did pass, slowly. Refugees began to arrive at the colony, also slowly. There was no fear that hordes of people would flock to the site: there weren't any hordes of people in this part of the country.

When people arrived they were welcomed but it was made clear to them that the colony was not a charity operation. Help would be given to those who needed it but work was expected from a| who were up to it. Such work was not for the Project but was for construction and running of the community. People were expected to work to help themselves. Anyone who was unwilling to work for the common good was required to look elsewhere for a home.

The weeks passed and the community grew. It slowly changed from a collection of tents and burrows to a village of adobe and stone houses. (There is not much to build with in this part of the world but there is a lot of rock. With lasers to cut it and

heavy machinery to move it, stone structures make a lot of sense.) With this evolution came a feeling of identity and with that, a name: Pahute Place.

Morrow personnel necessarily played a dominant role during the formation and early days of Pahute Place, but as more people came in and the village took on a character of its own, the people were required to run more and more of their own affairs. Morrow people were still around, but not as many nor as often as they had been. They were available to advise and support, but not to lead or to form policy. This was central to the philosophy of the Project, which was not and never had been to replace a government of the People.

Not that there were no problems! The formation of Pahute Place was an unending problem from Day One! Just providing the refugees with the "basics" of life: clothing, shelter, food, medical care, etc., was a horrific problem with many unforeseen complications. There were also social difficulties, most often involving *once* human wolves who had grown accustomed to preying on others. There was one particularly violent interlude in which Base personnel and Pahute citizens combined to exterminate a cesspit "empire" (based out of what had been the town of Vya.)

Disaster

If the personnel of the Base had seen what was coming they would have done something about it. If they had been aware of the nature of the peril, they might have known what to look for. They did not.

Not that the calamity occurred overnight, or in a form that could be dealt with by a bullet. Things were too far gone to repair before the Project even knew there was a fight on.

The fall of Prime Base is directly attributable to the counter-organization of a man named Krell. This person, and his organization, are briefly mentioned here and there in GB-1, The Morrow Project Game Book and in several of the modules. For the purposes of this module it will suffice to say that Krell and his "warriors" represent a philosophical point of view that is directly opposed to that of the Project.

Such pieces of the Krell organization as were still active after the War were on the lookout for Project personnel and activity. It is not known when the first Krell operative came to Pahute Place, or who he (or she) was. Chances are that this person arrived with a group of other refugees and then blended in to the local scene quickly. Eventually this person got word out to others of his kind. It was only a matter of time from then until more Krell personnel began to arrive.

Certainly there is no mystery as to how the personnel of the Base missed this infiltration by hostile elements: they didn't know there were any. The Morrow Project was unaware that there was a "competing" organization, run by Krell, that they should be on guard against. Quite simply, they did not know that Morrow security had been compromised and that there were people looking for them.

And so there had never been any effort made to keep Pahute Place, or the fact that it was sponsored by The Morrow Project a secret. (Nor was Morrow involvement stressed or emphasized, it just wasn't concealed.)

Word about Pahute Place spread, albeit slowly. People heard about the "new town up in the rocks of Nevada" and some of them headed for it; that was the whole idea of the Base personnel's "recruiting program". But with that word went mention of something called The Morrow Project. While this meant nothing to most of the people who heard it, it caught the attention of others who did.

It was not long before the Krell operatives who had penetrated Pahute Place divined that there was a major, perhaps the major, Morrow Base nearby. They had been attracted by the Morrow involvement in the first place.

Word of their discovery filtered to the Krell commander who

was then filling in for the somnolent Boss. As more information reached him, it became apparent that whatever was going on at Pahute Place was being backed by that most sought after of Morrow entities: the hypothesized command center of the Morrow Project. To make sure of this, specific instructions were issued to the tactical group that was, by now, operating out of Pahute Place.

The disappearance of one of the Base's personnel was not noted in connection with any other sinister event. The man's absence was attributed to the known dangers of operating independently on recon missions for the Base. There is no doubt that his capture, torture, and subsequent death remained unknown to the Base. Certainly no one knew that one of their own, in accordance with orders issued by Krell's staff, had been ambushed and interrogated far from home. No one realized that the existence of Prime Base was now known to an implacable enemy. (Nothing else was known as the victim managed to die before more was gotten from him. This fact was not reported to higher ups.)

But from that moment on Krell was working on ways and means of capturing, or, if that failed, destroying Prime Base.

Destruction presented logistical problems but no others. The Krell organization had acquired several nuclear weapons, any one of which could annihilate the Base. The only problem was in introducing the necessary device to the vicinity.

Capture was a different and more delicate problem.

The first indication the Base had that anything was wrong was the disappearance of one of its members, but this went unnoticed. The second was the influx of refugees to Pahute Place.

Pahute Place had been operational for several months when the "tide" began. Morrow personnel attributed the rush of new colonists to their word of mouth advertising campaign. It was nothing of the sort. Unbeknownst to the Project, Krell operatives had given the effort a boost.

A flood of refugees converged on Pahute Place all in the space of a few weeks. Concealed among this mass migration were numerous Krell provocateurs. The influx strained the resources of the colony and the Base to the limit. Pahute Place had been planned for a couple hundred people. Suddenly there were over a thousand and presumably there were more on the way.

Base personnel and colony residents tried to meet the needs of the new people but there was simply no way that it could be done. There was not enough to go around. At the instigation of the Krell operatives in their midst, the newcomers began to complain bitterly. It was not long before people were demanding to be given what they wanted.

Just trying to meet the minimum needs of the people was nearly impossible. Pahute Place had been operating on carefully controlled rationing since its beginning. Now that rationing had to be severely cut back to make the same supplies feed and take care of more than ten times as many people. And this, of course, made many of the older residents of Pahute Place unhappy. Very soon nobody was happy in Pahute Place.

This was the situation that the Krell personnel had tried to create. With not enough food to go around, with the village falling apart from the strain placed upon its resources, people were desperate and willing to listen to the Krells.

Krell agitators now openly preached to the discontented citizenry. The Krell haranguers admitted to no relationship with each other, they all claimed to be individuals who just happened to have the same ideas. All of them now spoke openly about how poorly the colony was run and about how desperately they needed help. They pointed to the members of the Project as the people that help should come from. They said that the Base personnel lived in luxury somewhere beneath the ground in their Base. They asked why, if the Project wanted to help them so much, didn't the Project supply what they needed?

The propaganda campaign became more effective as conditions got worse. Supplies grew shorter as time passed. Work ceased as Krell provocateurs called general strikes in protest. The Base could not feed all of these people and told them so. The Krell

agents said that it was all a lie. They darkly hinted that, if the citizens of Pahute Place did not have their "rights" to food and shelter met, other, less pleasant means could be found to provide.

There were some sane people in Pahute Place who kept their wits about them and did not fall for this. They did not last long. As such people made themselves known by speaking out against the Krell policies, they soon stopped breathing. In not long at all most people learned to ape what the Krell Party said, or, if they couldn't stomach that, to keep their mouths shut. But as the days passed more and more people came to believe in the Krell Party.

Nor was there much reason for them not to. In very short order new arrivals outnumbered the old hands by at least ten to one. The new people knew next to nothing about the Project, most Project personnel had opted out of the management of Pahute Place long before. How were these newcomers supposed to know that the Krell agitators were lying?

Within a month of the start of the flood, the Krell provocateurs were being supported by a howling mob firmly under their control. With that power base to play from the Krell personnel made their move in earnest.

Weapons began to appear in the refugee camp; more than had come in with the refugees. At the same time an ultimatum was delivered to the Base: Open up the Base and let the citizens of Pahute in to take what they needed or else have it taken anyway. The several remaining members of the project still at the colony were placed under "protective custody" by the Krell Party - they were hostages. All other Morrow personnel were warned to stay clear of the area "for their own safety". A ring of patrols spread out in the mountains around Prime Base. Prime Base was under siege.

It was at this time that the final Krell cadre arrived at the scene. They brought several things with them. One was a nuclear device: an H-bomb on a flatbed truck. Another was a load of vaccine, a few dozen doses. Both of these were secret, the truck was covered, the vaccine hidden. There was also a final load of refugees. These people were not a secret but what they were carrying was (even from them). This bunch of refugees were dying but didn't know it. All had been in contact with Krell cadres who were infected with a virulent, and fatal, artificially produced disease; a biological weapon. The Krell knew it, had been inoculated against it. The refugees did not know it and had not been protected.

The fresh cadre made sure that the Krell personnel on site all got a dose of the vaccine that would protect them from the plague. The fresh refugees mingled with the people in the Pahute refugee camp and spread the disease. Contact between the refugees and the hostages spread it to the Morrow personnel. And then two of the hostages, not knowing they were infected in any way, were "released" by the Krell Party to carry final demands to the Base.

The plague was a product of the Krell organization. It was essentially a virus, as are most biological weapons. It could be spread by any kind of close contact, by touching or even by sharing the same air. But it could not exist outside of the body of a vector, a host, for any period of time. The virus bred only in the bloodstream of warm-blooded animals.

It did not kill of itself. The virus was tailored to attack (through the bloodstream) the immune systems of the body leaving the host completely undefended against any other infections it might encounter. And there are always other infections. It broke down the defenses so thoroughly that a victim could die of ring worm. The fever and headaches associated with the common cold could, after this virus had been at work, kill.

The only drawbacks to the virus as a weapon were that it could only be spread by warm-blooded animals and that it had a long incubation time: a week to ten days in most cases. Its greatest advantage was that it was impossible to spot by any normal screening and that once established it was nearly impossible to diagnose. Victims would, after all, not be dying from the virus but from other things.

The Krell researchers who developed it provided the weapon with a polysyllabic Latin name. The Krell planners who looked at it and thought up ways to use it gave it a different, working name. They called it roulette fever since you never knew what was going to kill you.

With the bio introduced to the Base the Krell personnel felt that their mission was accomplished. It would only be a matter of time before the Base personnel, the refugees, and all other warm-blooded life was removed from the area. (Excepting themselves of course.) Taking the Base would then not be a problem.

The nuclear weapon was there for insurance. If something, somehow, did go wrong, it could be used to destroy the Base and everything around it. It was at this point that something did go wrong for the Krell.

The people of the Base had been watching the developments within the colony with a growing sense of alarm. The situation had gotten out of hand so quickly, with so little warning and on such a large scale, that there were no political remedies available to the Base. But those very conditions seemed too pat to be coincidental. After careful analysis of the information and reports that they had, it became obvious that someone named Krell was behind the trouble.

When the Morrow personnel still out at the colony were taken hostage there was no longer much hope of a peaceful settlement. Preparations were begun for fighting within the Base (see the Deception sections). No serious thought was given to fighting outside, the disparity in numbers was too great and nobody was going to use a nuke so close to home, even if these had been the kind of people who would irradiate what were still, despite recent difficulties, helpless people.

The arrival of the two hostages released to deliver the final demands (and who were carrying infection to the Base) galvanized "popular opinion" in the Base. The demands were, of course, unacceptable.

A decision was made to mount a raid to rescue the hostages. One of the Base's small helicopters, unused up to now and so probably unknown to the hostiles, would carry a small contingent of MARS personnel and a lot of weaponry right into the camp under cover of darkness. The weapons would be given to the prisoners and the combined Team would then try to fight its way back to the Base. (The chopper did not have the lift to carry many people.) Outside of the Base other personnel would be waiting to assist the prisoners as they got closer.

The raid was an utter hash. None of the people planning or conducting it had any experience in this delicate type of operation.

The helicopter, overloaded with men and weapons in spite of the protests of the pilot, did not land in the camp: it crashed there. Most of the raid force got clear of the wreckage before it burst into flames. These men did link up with the hostages and managed to hand out some guns. There had been no serious opposition to this point, the Krell really had been taken by surprise.

But in the noise and darkness all cohesion of the raid was lost. The more than one thousand refugees in the camp had been awakened by the sound of the chopper, terrified by the crash, the flames, and the shooting that followed. Some tried to fight the raiders, as did some of the Krell. Most gave way to blind panic, rushing in all directions, screaming and generally confusing things as only a large scale riot can.

In the middle of all of this the raiders and hostages were split into small groups. The hostages really did not know what was going on, what the plan was, or what they were supposed to do. The raiders couldn't keep track of one another, much less the hostages.

Amid the screams, the flames (which were now spreading to anything flammable) the running people and the unarmed, wild bursts of fire into the dark or the crowds, the hostages and raiders

tried to orient themselves and head for the Base. Some small groups made it; more than anyone had any right to expect. Others were killed, some may have been recaptured. The ones who made it back to the Base only served to spread the plague more quickly.

And shortly before dawn, when the Project personnel waiting near the Base to aid in the rescue had given up hope for any more survivors and had returned underground, the bomb detonated.

How it happened was never discovered. The personnel of the Base had not known there was such a device present in the camp. But there had been one man on the raid, a MARS team member, who had technical know-how with nuclear weapons. He had not returned to the Base. It was speculated that, fighting some desperate last stand action, he might have encountered the weapon, recognized it for what it was and seeing no other way to keep it from being used against the Base, set it off.

But there was no mistaking that a nuke had gone off in the valley below the Base. The detonation seared the side of the ridge facing the blast, ripping away the facade of the ranch above. The Base's detection instruments for exterior conditions ran off the high ends of their scales.

The blast, situated as it was in a pass, brought both sides of the mountain range around it crashing down. What had been a narrow valley between the mountains was now choked with rock and dirt from those mountains. The landslide caused by the bomb completely closed the valley. Water of the upstream side began to fill the canyon.

The tectonic readjustments the blast had caused (and would cause) were not known to the people in the Base. They were busy with other problems. They could not now safely leave the Base or do anything much in the immediate area: a nuke going off a mile or two away is not something that improves the neighborhood. They had specialized gear that would let some people out, or to move around, but there was not enough for all.

They decided to sit tight and wait for the radiation to dissipate. After all, they still had a job to do at the Base. In time they'd go out again.

They were wrong of course. Very shortly the plague began to make its presence known. After that it was only a matter of time.

PLAY OF THE GAME: THE DISASTER AT PRIME BASE

What happened at Prime Base will have very little effect on the course of the game. It's been too long since the events occurred: there are not many traces to show what happened.

There is no sign of Pahute Place. The colony was obliterated by the bomb, then covered over by the landslide. The rise of the lake in the valley will prevent excavation, even if anyone is so inclined.

The lake and the extreme climatic conditions have now removed the worst of the radiation from the area. It's still dangerous, but not automatically lethal. The bio weapon needed hosts to survive. When they were dead, the bio died too.

There are records of these times at Prime Base, filed away in the archives. They are current to the point where the bio reached the peak of its effectiveness. But these records do not reveal much: Base personnel never did learn all that much about what was going on. As a result the records are an account of events, not an explanation of what happened.

THE FINAL DECEPTION

With the escalation of the difficulties with the radical elements of Pahute Place, the personnel of the Base began to consider the unpleasant prospect of open conflict. It is no exaggeration to say that Base personnel dreaded the prospect.

There were a number of reasons for this. First among them was an ideological repugnance toward spilling the blood of some of the last people in the world, both those of the Base and those in Pahute Place. Such a conflict had too much of the flavor of

two ghouls fighting over a corpse. There was also the matter of there being no real need to fight. If the people in Pahute Place could only be brought to see reason, the way they used to, all of this unpleasantness could be set aside. The relative suddenness of the problems with Pahute Place also troubled the conscience of the people at the Base. There was something unnatural and sinister about so many difficulties arising so quickly to such a level of intensity.

But these considerations aside, there was one very pragmatic reason: the people now in Pahute Place outnumbered those in the Base by 10 to 1. If it came down to a fight, the Base was not likely to win, not if it fought on the terms of its adversaries.

There was no question of fighting, even with the superior weaponry of the Project, up on the surface. Technological superiority or no, the numbers of the "enemy" and the terrain made it obvious who would win such a battle.

For very different reasons there was no question of using the weapons of mass destruction available to the personnel of the Base. In the first place, people did not want to. In the second place, there was not a one of these weapons that would not have had a long term effect on the environment of the area and so the Base. It therefore was not practical to use such a weapon.

There was, however, one place where the Base personnel could fight if they had to, and enjoy every advantage of local knowledge of terrain, communications, supply and organization. That was in the Base itself.

Nobody wanted to fight, but as time passed, it looked more and more like there would be a concentrated attack on the Base itself, the object of which would be to exterminate those "grasping, selfish Morrow people who are keeping the good life to themselves." With the considerations listed above in mind, the personnel of the Base began to prepare themselves for fighting inside of the Base.

Fighting inside of the Base would place every tactical advantage in the hands of the defenders, while at the same time reducing the advantage the opposition had in numbers. No matter how many people the opposition had, they would have to come at the defenders through corridors and other confined spaces, spaces which could be defended by far fewer people.

It was understood that such fighting, if it came to that, would be extremely bloody, but there didn't seem to be any alternative. Nor was it expected that the defenders would be able to hold the invaders "at the gates." It was understood from the outset that, given the numbers involved, the defenders were likely to lose a lot of ground before the attack was beaten back.

The impending fight had all of the earmarks of the nastier variety of house-to-house fighting that has gone on in this century. Fortunately for the personnel of the Base, they had among their numbers a couple of people with direct experience of that kind of combat. One of these had fought in Hue in '66, the other was a veteran of the Lebanese civil war and the streets of Beirut.

These people were able to establish some of the basics in the minds of the defenders. Every corridor, every corner, every intersection, was a potential strongpoint for the defense and a chokepoint for the attacker. Each had to be barricaded and defended to the last drop of the attacker's blood. When the time came, the defense could fall back and by and by, the offense would start running low on people.

Communications would play a significant role in any fighting. If the Base personnel could use the phones, but the enemy couldn't, the advantage would be enormous.

But key to everything would be knowledge of the terrain. Base personnel would know their way around inside and the attackers would not. The defenders could move around with confidence, but the opposition could not.

And this notion was the pivot upon which all else turned, the source of the final deception.

Barricades, designed to be abandoned the moment they were no longer effective, could be constructed rapidly. The switching of the Base's phone system could be effected even more rapidly.

But deception within the Base was a more delicate problem, especially with signs on practically every door identifying the areas beyond.

Base personnel, after years of getting around, could find their way about without signs, invaders could not. Furthermore, invaders would be looking for specific command and control areas. How would they find them or tell one high tech area from another if the signs and labels were gone?

Switching or obscuring all of the signs in the Base (and all of them had to be done, for no one could predict where the fighting would spread) could not be done quickly. It was not enough to just efface the labels casually, for such could be scraped or otherwise rendered impotent with relative ease. No, all of the signs, all of the names on all of the doors, had to be eradicated completely. This often meant sanding the surfaces, but it was done.

Had there been time, bogus names would have been affixed in place of those erased. But the ground attack on Prime Base was never launched. The work done in "de-identifying" the various areas of the Base was wasted as far as the original purpose was concerned.

As it turned out, the scheme was coopted in the Grand Deception executed while the Base was dying.

Play Of The Game

PDs should note that the effacing of names/labels throughout the Base was never "corrected." As a team wanders the corridors of Prime Base, they should be totally at sea with regard to what lies behind any given door. The team may come to believe that all of this was done solely to thwart them but that is not the case. If they ever do come across the records of the final days, the reasons for the curious conditions of the corridors will be made apparent.

THE GRAND DECEPTION

As has been noted in the "historical" account of Prime Base, there came a time when the Base personnel knew they were going to die.

Different people reacted to this news in different ways. Fortunately, there remained to the last a hard core group of realists, devoted to the Project and their comrades still sleeping across the Continent.

These people took council together and decided to take extraordinary measures to preserve the Base for the future, when other Teams might find it. A description of what they did follows, but that will be hard to understand unless the reader is aware of the reasoning behind the steps taken.

The Base personnel were dying; they would not be around to guide teams to the Base or help them in the field. They could not wake those teams up, either. To do so, so soon after the War, would only condemn them to death too. But the mission of the Base, when all the fancy wording was set aside, was to help those field teams and preserve and rebuild civilization. "Well," said one of the people in the final group, "maybe we're going to die, but there's no reason the Base should."

It was decided to save the Base, to take steps that would ensure that it would be around long after its people were dead. (Not gone, everybody was going to be there for some time...) This, while difficult, would have been a fairly straightforward operation. Most of the Base would have to be powered down with a few systems left running at low levels via the Emergency Power grid. Documents would have to be prepared for the personnel who would eventually find the place, accounts of what happened, what to look out for, where to find things and most important of all, instructions on how to operate the Base and carry out the mission. After all, an automatic program was being devised to wake the field Teams up in a few years. With everybody "up and running", it shouldn't take long for them to pool their knowledge and figure out where the Base was. So the Base was only going to be out of action for a relatively short period of time.

But it wasn't going to be that simple. The people making these final arrangements had something else to consider.

The Base was dying due to the effects of hostile outside action. Was it over? Were the hostiles all eliminated? True, there couldn't be any in the area still alive but they had shown themselves to be capable, organized and ruthless. Could the last planners afford to assume they were all dead?

The answer was, of course, "No." And since the answer was no, other possibilities had to be considered. Chief among them was this: what if it isn't our guys who next find the Base? What if the Base, with all that it has and can do, falls into the hands of the uncharitable?

Smart money was on the latter too. There was absolutely no reason to assume that the blast in the valley had gotten all of the opposition, and if any had gotten away or even managed to send reports, unfriendly people might already be enroute to Prime Base. And, when they arrived, there would be no one to welcome them properly.

If the final cabal had been truly hard core, they'd have destroyed Prime Base since it looked for all the world like it would soon be the property of people who were altogether too free with nukes and lives.

But the final cabal couldn't bring themselves to destroy what they had worked so hard to create. After all, without Prime Base, it was likely that the Project would shrivel up and die.

Thus they decided to take a chance, leave the Base intact and hope against hope that it was found by a Morrow team.

However while it was thus probable that the opposition would soon be here, there was no reason to believe that the bad guys would know how big Prime Base was.

True, they'd know where to find it. They also knew that it was underground and that it was big. But there was no reason at all to assume that they knew just how big. There was reason to assume that the members of the probe(s) would not be anxious to die. Prime Base and its environs would be monumentally unhealthy places to be for some time to come, what with nukes and bios and all. Anybody who came poking around the area would want to get out again as fast as they could no matter how well equipped they were.

Now, how carefully would such people look? How interested would they be? If they found a sub-surface complex, say the entryway and three seventy meter modules, one devoted to quarters, another to admin, the last to agriculture, would they not reasonably assume that they had plumbed the depths of the Base? Especially if they were in a hurry to get out and away?

The final cabal figured this was exactly what would happen. And so was born the Grand Deception.

The basic idea behind the deception was to cause an intruder to think that the Base was really much smaller than it was. This was to be done by using the first level of the Ops, Life and Support cylinders. These areas, along with the Entry area of the Base, were to be made to look as though they were the entire Base.

To this end a fair amount of machinery and equipment were moved around, not so much was brought in as was taken out. The Life cylinder was not too hard to rig, the food service area and the extensive quarters found there were already quite convincing: it looked like a place where people lived. Nor was the Support ring much more difficult. The agricultural nature of the place was just what the deception demanded. Most of the heavy work had to be done in Ops. Here the entire reception and processing areas (but not the medical facilities) had to be made to look like something else. "Something else" in this case meant Project offices, communications facilities, and all of the other things one might expect to find in a continental command center.

This was not as hard as it might have been since things did not have to work, they only had to look good. So electronic equipment that was installed was never operational. In fact, much of it wasn't "real", in that most of it was cobbled up from parts and broken bits of other systems. The fact that none of the stuff worked was not a problem, since all of it was "destroyed" in

order to prevent its "capture". Thus a lot of things were put into offices with their plates torn off and wiring hanging out.

The same sort of thing was done with computers and files. When the work crews were done, it looked for all the world like there had been several very intense fires where documents and other things had been destroyed.

Critical pieces of gear were moved to other areas, mostly into empty storage areas in Support. This was also the case with actual records and documents. Careful attention was paid to paper and records of any kind. All of the phone books were, for instance, rounded up and moved off (or burned for that nice, carbon black effect on the walls and ceilings). No maps of the Base were left in the area; or anywhere else in the Base for that matter. (See exception to this in the records left for Morrow Teams to find.) Several bogus maps were drawn up and posted; one in each of the rings. Two of these were pretty thoroughly "destroyed", but one was a rush job and still readable if one found it and hauled it out of the burn barrel.

The trickiest part of the deception had to do with disguising the true nature of the Trans Cores. It would not do to have intruders blunder upon elevators and stairs in what was supposed to be the only floor of the Base!

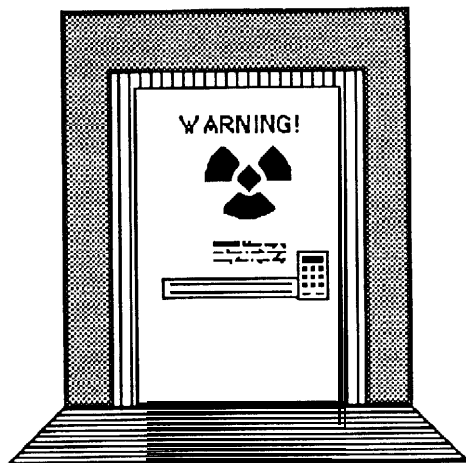
The Trans Cores were therefore disguised as pocket nuclear reactors. To do this, light metal sheeting was brought up from Support. This sheeting was then bolted over all of the elevator doors in each of the cores. The sheeting was painted to match the rest of the Level's walls. The stairwell entrance doors were left open but were cosmetically modified. Each was painted with a radiation trefoil and the words:

DANGER: REACTOR AREA
AUTHORIZED PERSONNEL ONLY
PROTECTIVE CLOTHING MUST BE WORN BEYOND THIS
POINT

were stenciled below each of the trefoils. Marvelously elaborate electronic locks were then placed on the doors. These locks did indeed lock the doors, but there was no means provided for opening them. There are no keys, no combinations; the locks/doors must be broken to be passed. They were supposed to intimidate intruders by their formidable appearance.

Above each door a light was installed. This was a red light surrounded by a security cage. Next to the light were stenciled the words:

WARNING:
IF LIGHT IS ON, REACTOR VESSEL BREACHED.
RADIATION CONTAMINATION BEYOND THIS DOOR.
DOORS ARE AUTOMATICALLY LOCKED.
EXTREME RADIATION HAZARD BEYOND THIS POINT.



These lights were wired into the Emergency Power grid of the Base so the lights were, of course, on.

The finishing touch on the doors was the application of a thin metal sheet to the door frames, these sheets were bolted in place, but before that was done low grade radioactive waste was applied to the inside of the sheeting. Thus anyone equipped with a detection device received readings from the doors, especially around the edges. It was thought that this would go a long way toward discouraging opening.

The last step taken in the deception was the concealment of the ramp in the Support Cylinder's Trans Core. This was done by installing sheeting all the way around it making it look like the walls of the rest of the Trans Core. Of course these walls had nothing behind them save a hastily erected framework for their support. If any one or anything banged into them a hollow sound would result. Not much could be done about that in the time left so a quick fix was made by piling gear from the agricultural area around those walls. This made it impossible to get to the walls, though they could be seen without moving equipment. But since there was no reason to move the stuff to get to what was obviously a blank wall, it was hoped that this would be enough. (And in the event, it was.)

Had there been more time, a more complete deception would have been undertaken. The problem was precisely that there was so little time. The personnel arranging the deception were already dying, they could only afford measures that would not take long to complete.

But within those limits, the deception is a very thorough one. Absolutely nothing has been left to suggest the existence of more Base to the casual or hurried observer.

Play Of The Game: The Grand Deception

It doesn't quite go without saying that the Grand Deception, originally set up to fool enemies, may also fool the Team that finds the Base.

Nor is this an idle point. During playtesting, more than half of the teams who got as far as the first three levels of the Base got no further. They believed the deception and thought that that was all there was to Prime Base.

This was an attitude supported by the cryptic reference in the gamebook implying that Prime Base had only five levels. If one assumes that the entry is one level, that the three rings of the cylinders make four and that the hypothetical "reactor" beyond the Trans Core doors makes five, it's a reasonable supposition.

Teams making that assumption usually abandoned the Base again in fairly short order. After all, there really isn't much there of any use, and certainly not enough to justify the use of the Base as a center of operations. Especially not when one considers the position of the Base in terms of terrain and climate! Commuting to and from Prime Base would be monumentally hazardous and what's available in the area of the deception is just not worth it.

That result is all right in a play-test, and it may suit the needs and campaigns of some PDs, but it is generally very dissatisfying to players. (I once avoided a lynching at the close of a playtest only by telling a team that they had in fact not discovered all of the Base. They were happier to know that they had blown the mission than to think that this was all there was to the much vaunted Prime Base!) And, after all of the trouble it has been for the Team to get this far (with the likelihood that the Team is now in very bad shape and unlikely to survive the outside world in their battered condition), some PDs may need a hint or two on how the Team can discover the rest of the Base in a believable fashion.

Obviously if any team is curious enough to break down one of the "radiation" doors to the Trans Core, it will become apparent pretty quickly that they have only found the tip of the iceberg. But not everybody will do that. (It must be pointed out here that the "radiation warning lights" above the doors have long since burned out. The radioactive waste used to "heat up" those doors was never very extreme either and now, over a hundred and fifty years later, will barely register on the Team's CBR detectors.)

There are other clues, but they'll only be found by Teams searching carefully. The Grand Deception was good as far as it went, but it cannot fool people who are willing to spend a lot of time checking out details and who are members of the Morrow Project.

Take, for instance, the communications equipment found in Ops. At a quick glance, or even a fast attempt at use, a person might be fooled. But no competent radio operator who actually pawed through the debris would believe that this stuff had ever really worked. It's all obviously faked if looked over carefully by someone who knows the business. (There are not even antenna connections in the area! How could it have worked?!?) Nor are there any of the Project's scrambler sets around which is damning evidence of something wrong if it's noticed.

The same sort of inconsistencies can be found in every area if a team looks long enough, if the Team asks the right questions. Where, for instance, did the power come from? Where are the controls? With the "reactor"? Why? But even if that is glossed over, how about plumbing? There are no controls for that either and there is no reason to put those with a reactor! Where are the supplies? Used up? If so, where are the empty areas where they had been kept?

Further examples abound but these should be left for the PD. The fact is that close examination will reveal that the stuff necessary to operate a continental command & control facility is not present here. But the clues are *subtle*. It's rarely a matter of what *is* here, but what *is not*.

There is also a structural incongruity in the Base. The Trans Cores (or "reactor access areas") are the same size in two of the rings (Ops and Life) but the third, in Support, is larger. Why? This is likely to be noticed only by someone measuring things, but it

could be crucial. A really suspicious player might want to know, what with the whole Base sealed and all, where are all the bodies?

For the PD who needs or wants something less subtle, consider the following variations: Instead of the ramp in Support having been "walled around", substitute the notion that it was quickly, and poorly, floored over. This makes the Trans Core in the Support ring smaller than the other two. It also allows the PD to see if Team members notice a difference in the flooring of the area or the noise they might make in walking on it. For the truly heavy-handed PD (or the truly desperate one saddled with a team that cannot make the connection between smoke and fire), this floored over area might have been so poorly constructed that, after a hundred and fifty years, some of the supports are gone and there are holes, or sagging, in some areas. (Or there might not be: until somebody walks on it...)

Conversely, a variation for the PD with a truly savvy team for whom things should be more difficult:

The people who disguised the Trans Core did it the way they did for two reasons. The first was so Morrow Teams who would come later could actually see that there was more to the Base, however unpromising, and so they would investigate. The second was that any intruder worth his salt was likely to wonder *why* there were these big "boxes" in the center of each ring with no doors or other sign of purpose. Leaving one door in each suitably booby trapped with warnings and low-level radiation was intended to diffuse this kind of curiosity.

But, and here's the variation, what if the Trans Cores are *completely* sheathed in sheet metal? Where will the "smart" Morrow Team look then? Think about it: it makes the whole thing a problem of a different order.

3 ENTRY TO BASE

The main entrance to Prime Base was concealed within a bogus ranch on the slope of the ridge beneath which the Base was buried. This entrance was intended to be the primary means of getting people in and out of the Base. Two other exits/entrances were provided, one for rotary wing aircraft (helicopters), and another for vehicles and heavy equipment. Both of these will be detailed later in the module.

The ranch was never operational as a ranch, it was built for the sole purpose of concealing the entrance/exit to the Base. There are clues which may suggest this to the observant searcher. The ranch is perched atop the crest of a ridge, and not in a valley. This is wildly unusual in the American west, where habitations of all types tend to cluster in valleys near water. Related to this is the ruined windmill water pump of the ranch, situated high on the ridge next to the buildings. Who puts a windmill on top of a ridge where the well it pumps from will have to be drilled through the height of the ridge? When there is a source of water in the valley below?

The next clue is visible only on close inspection. The name of the ranch was the M Circle P, and its symbol/brand was nearly identical to that of the Project. The only difference is the absence of the infinity symbol from the sign of the ranch. A large, steel M Circle P hung from the gate posts of the entrance to the ranch.

The ranch was built of wood and stone, with a little adobe for variety. Readers familiar with PF-07 Desert Search take note: the ranch was not constructed in the same way as the bogus ghost town of Eden. The ranch was built in the normal way out of common materials.

It was done this way because the facade of the ranch was seen to be a temporary expedient. Clandestine entry and exit to the

Base would only be going on for so long. After a period of a few years, the ranch charade could be done away with and the buildings removed.

There are, however, some irregularities of the ranch's construction.

Inspection of the barn's ruins will reveal that it had a reinforced concrete floor, *most* unusual in a rural barn. Inside the barn there was a blockhouse: the personnel entrance/exit to the Base. The blockhouse is sheathed in steel, layered with armor within and built to withstand a near miss by a nuclear warhead (which it did). The door is armored but may be opened in the usual way by insertion of an MPID. Inside, there is a small chamber which faces an elevator door and a set of stairs to one side of the elevator. (The stairs descend by winding around the elevator shaft.) The elevator is operated via the MPID, as is the door to the stairway. Operation of the elevator is simple. There are no buttons to push or markings for floors, nor are any needed. When a card is inserted, the elevator goes up or down depending on where the card is when the card is inserted. The elevator stops when it gets to the other end of the shaft and the door opens.

The elevator and stairs both descend 50 meters from the level of the surface. The trip takes the elevator about 60 seconds, but hiking the same route will take not less than 5 minutes down and at least 10 minutes back up - assuming climbers in good condition.

Entrance: Play Of The Game

The ranch can no longer be seen from a distance: it was obliterated by the nuclear detonation that destroyed Pahute Place. Constructed as it was, most of it was simply blown apart by the shock wave. Even the tower of the windmill went down. The

gate with its telltale M Circle P sign was smashed to the ground.

The blockhouse within the barn survived. A great deal of the material of the barn, and some from the rest of the ranch, was blown against the sides of the bunker and lodged there.

By the time the players will be arriving, there is no trace of a ranch to be seen from any distance away. What can be seen, and what may attract their attention, is this: a distinct difference in the density and coloration of the vegetation on that part of the ridge.

With the climatic changes in the valley, practically all forms of vegetation are doing well, but they're not doing as well in the immediate vicinity of Prime Base and the ranch. The Base itself takes up a lot of room below that ridge, and where the Base is, roots cannot go as deep, natural drainage is interfered with and plants do not get along as well in general. So, while the growth is still lush, it is obviously not as tall, as healthy, or as deep a green as the plant life around it. This can be seen on what passes for clear days in the valley, from some distance away (3 to 4 kms).

Close inspection of the area might reveal a number of interesting anomalies. The remains of the large, concrete floor in the barn are fairly easy to find. It is cracked and broken in many places by roots and trees, but it is there (it was originally put in for parking MPVs inside the barn, out of sight) and it measures 50 x 20 meters. It's the closest thing to a clearing in the entire valley! Note that very little of the concrete shows. 150+ years of time and rain in this climate have about covered it with mud and dirt. But it can be found here and there and some modest digging will reveal a lot more.

At the far end of this "clearing" is a small (no more than 20 foot high) mound. This is the blockhouse, now effectively covered, first with the remains of the barn, then with accumulated dust and dirt, fallen trees, dead plants, and above all that a layer of healthy weeds, vines and saplings. This mound is very regular in its size and proportions and surrounded on three sides by much taller vegetation. If there is an amateur archeologist in the team it should fairly scream for investigation.

The overall effect of the parking lot and blockhouse suggests, if someone is looking at it in the right way, a scaled down Chichen Itza; the vine covered Mayan ruins in the jungles of the Yucatan in Mexico. The parking lot might resemble a court, and the blockhouse, due to the mounding, a pygmy pyramid.

And, if the PD thinks it necessary, there's always the big M Circle P sign. It's possible that the gate was blown down into mud, and that the firestorm that raged over the valley baked that mud with the sign embeded lightly in it. In the years since then the sign would have rusted away, but this would leave what is effectively rock with the M Circle P logo apparently "carved" into it. In short, it should be possible for the Team to get to the right place.

Digging out the blockhouse will take time, 6 to 24 hours of work depending on how the team goes about it. If they get lucky and start on the side with the door, only 6 hours of work will be needed. But if they have to clear all four sides, it'll take 24 hours.

The door to the blockhouse is operated by an MPID. It is armored, as noted in the previous section, The door still works, albeit slowly. All of the debris that was piled against it during the first moments after the blast has protected it from the worst ravages of time and climate. The door closes, slowly, 75 seconds after the MPID is removed from the slot, allowing time to retrieve the card and still enter the blockhouse.

The blockhouse itself reads "hot" if any of the team are paying attention to their radiation detectors. The dosage, however, is a long way from being dangerous. You'd have to live here, in the blockhouse, for a few years before there'd be any harm. Note that the debris covering the blockhouse is not radioactive.

Inside, the blockhouse is as described in the foregoing text. There is no lighting in the room before the elevator and stairway doors, nor in the stairway. There is a light, a ceiling glow panel, in the elevator.

As for the stairs beneath the windmill, they are blocked (see the next section). They will also be the next best thing to impossible to find since that entrance/exit was destroyed by demolition from within the Base, time and the elements have had a lot of their work done for them. There is not so much as a hole in the ground to mark the location of the windmill and the site is completely overgrown. If this exit is ever to be opened again, the job must be begun from the bottom of the stairs.

Base Entrance

The stairway and elevator which descend from the blockhouse above and at a small room.

When anyone enters the room, the entire "reception area" of the Base is alerted and is powered up to operational level by the insertion of the MPID in the door of either the stairway or the elevator exits. Thus by the time anyone actually enters the room above, systems are on and the reception area is waiting to receive.

The room is rectangular, 2 meters wide and 4 meters long. The door of the elevator opens at the center of the long west wall, with the door of the stairway opening one meter to the left of the elevator door. There are doors in the north and south walls too but both are closed. There is a flat computer display screen located at the center of the far (east) wall. The words displayed on it are large enough to be read from the elevator or stairway doors. The room is efficiently lighted by glow panels in the ceiling. A surveillance camera protrudes from the ceiling in the NE and SE corners. Each is capable of "watching" the entire room by itself. Finally, two armored laser turrets flank the display screen in the east wall. Each of these has its own targeting camera, operation of which is denoted by its steadily glowing red light.

Currently, the display screen on the east wall displays this message:

PLEASE BE ADVISED THAT YOU ARE UNDER SURVEILLANCE.
BE FURTHER ADVISED THAT THE WEAPONS LOCATED TO
EITHER SIDE OF THIS SCREEN COMMAND A FIELD OF FIRE
THAT ENCOMPASSES THE ENTIRE ROOM.
READ THE FOLLOWING MESSAGE CAREFULLY BEFORE YOU
PROCEED:

1. This facility is currently operating under emergency procedures.
2. A threat of exterior CBR contamination exists.
3. You are therefore instructed to proceed through decontamination.
4. DECON is located through the door to your left. When you have finished reading these instructions, proceed through the door and follow all instructions posted beyond. Bear in mind that you will be under surveillance at all times.
5. ANY ATTEMPT TO RETURN TO THE SURFACE OR TO OPEN THE SOUTH DOOR WILL BE MET BY FIRE FROM THE FLANKING WEAPONS.
6. No questions will be answered at this time.
7. Proceed when you are ready.

This message is 100% accurate. Any attempt to open any door but the one in the north wall will cause the lasers to open fire. Any threatening move directed at either weapon (such as aiming a weapon at it), will also result in fire. These lasers can target independently. They fire at one second intervals with an E-Factor of 100 and a 50% chance to hit with each shot regardless of any target movement, etc. But the lasers will only fire at targets which are engaging in "proscribed activities." Someone could, for example, stand still in the middle of a fight and as long as the person made no threatening moves, the lasers would not target or fire on that person.

The north door (the one on the left), is a powered and armored door and requires an MPID for its operation. The passage beyond the door is one meter wide and leads to the right. Two meters beyond the door the passage again turns to the right. On the wall of the turn, facing anyone having come through the door are painted these instructions:

1. You are now in the DECON area.
2. Proceed through all stations and follow all posted directions.
3. DO NOT RETRACE YOUR STEPS FOR ANY REASON!
4. Failure to comply with all directions will result in denial of entry to this facility.
5. Remember: YOU WILL BE UNDER SURVEILLANCE AT ALL TIMES.

Refer to the map for this area. The passage remains one meter wide as it zig-zags past the various numbered stations. A camera is posted above each station and will track any party moving through the area. The DECON area is dimly but adequately lit by glow panels along the ceiling of the passage.

At each numbered point from 1 thru 5 there lies a large bin above which are instructions printed on the wall. These instructions are (in order):

1. REMOVE ALL PROTECTIVE OR OTHER EXTERIOR CLOTHING AND ALL CARRIED OBJECTS, INCLUDING WEAPONS, AND THE CONTENTS OF ALL POCKETS, AND PLACE THESE IN THE BIN. RETAIN YOUR MPID!
2. REMOVE BOOTS AND SOCKS AND PLACE IN BIN. RETAIN YOUR MPID!
3. REMOVE COVERALLS AND/OR SHIRTS AND PLACE IN BIN. RETAIN YOUR MPID!
4. REMOVE TROUSERS AND PLACE IN BIN. RETAIN YOUR MPID!
5. REMOVE ALL UNDERCLOTHING AND PLACE IN BIN. RETAIN YOUR MPID!

Stations 6, 7 and 8 are all larger chambers, they are two meters wide rather than one. Each is a shower room, and all are equipped with cameras and instructions as follows:

6. YOU ARE ABOUT TO ENTER A SHOWER. THE LIQUID IS A BLEND OF DECONTAMINANT AGENTS. SCRUB THOROUGHLY, TAKING NOT LESS THAN FIVE MINUTES AT THE TASK. RETAIN YOUR MPID!
7. YOU ARE ABOUT TO ENTER A SHOWER OF SOAP AND WATER, SCRUB THOROUGHLY TO REMOVE THE DECONTAMINANT SOLUTION. RETAIN YOUR MPID!
8. YOU ARE ABOUT TO ENTER A RINSING SHOWER. RINSE YOURSELF THOROUGHLY. RETAIN YOUR MPID!

Station 9 is a one meter passage again with these instructions:

9. YOU ARE ABOUT TO ENTER A DRYING SYSTEM. PART OF THE SYSTEM INCLUDES BATHS OF LIGHT AND OTHER RADIATIONS INTENDED TO ELIMINATE BACTERIA AND OTHER INFECTIONS, AS WELL AS WARM AIR BLASTS TO DRY THE LIQUIDS FROM YOUR BODY. TOUCH THE RIGHT WALL WITH YOUR RIGHT HAND, CLOSE YOUR EYES AND PROCEED TO THE END OF THE WALL. MOVE SLOWLY. AT THE END OF THE WALL YOU MAY OPEN YOUR EYES AND PROCEED INTO THE ROOM ON YOUR RIGHT.

P.D. NOTE: Anyone who is fool enough to try and go through with their eyes open should roll a D20. On a 20, they are blinded permanently. On a roll of 1-19 they are blinded for the rolled number of days.

Area 9, like all of the others so far, is equipped with a camera.

Station 10 is a large room, 3 meters square. It is empty in the center but the walls are covered by floor-to-ceiling shelves. These shelves hold bundles of clothing, each individually wrapped in clear plastic. One set of shelves holds pairs of boots. All of the bundles are marked and racked according to sizes as are the boots.

The racks are all very nearly full, indicating that very few people have traversed the DECON system (or that the room has recently been restocked). The instructions in this room read:

10. YOU HAVE NOW COMPLETED THE DECON PROCEDURE. DRAW CLOTHING IN THE APPROPRIATE SIZE FROM THE RACKS AROUND YOU. WHEN DRESSED, PROCEED THROUGH THE DOOR IN THE WEST WALL. THIS WILL PLACE YOU IN THE SECURITY CHECK AREA: BE SURE THAT YOU HAVE YOUR MPID!

The clothing available is all of the same kind: orange coveralls identical in cut to those of normal Morrow issue. These are not made of resistweave and have no armor value. The ubiquitous security cameras are also present in this room, this time in the form of four cameras in a pod suspended from the center of the ceiling.

P.D. NOTE: There is nothing, absolutely nothings to prevent anyone from retracing their steps through the DECON area. Note that this is the last opportunity that any team member will have to reacquire their weapons, packs or other personal possessions. (Of course, returning through the showers is likely to get people quite thoroughly soaked, and the drying sequence is not likely to completely dry weapons, clothing, packs or bundle&)

Area 11 on the map is the security reception area of the entrance to Prime Base. This 'L' shaped space is open and uncluttered and it was the area in which security checks and interviews (if any) would be conducted if the Base was actually operational.

The southeast corner of the room is occupied by circular stairway leading to the surface above. (Its egress was concealed by the base of the windmill/water pump above.) The stairway, like the one leading to the entry, is enclosed. The door at its base will not open and should it be forced (no mean feat), the stairway will be found to be impassable due to the fact that it has been completely blocked by a rockfall (the result of the operation of the emergency destruct sequence for the stairway). The original purpose of the stairway was to allow personnel to return to the surface without having to move through any other area of the Base. This was deemed desirable for the purpose of decontaminating personnel who would then need to return to duty on the surface. (Protective clothing and other gear would have been stocked in the clothing room to supply people had this actually been done.)

The exit from the room is a long, unlighted tunnel leading away due south. More will be said about the tunnel and this room later.

Area 12 is the former security monitoring post. This 3 meter by 2 meter room is what passes for a "nerve center" for the reception area. During normal operations it was manned by four people. It was their task to monitor the cameras throughout the reception area and to override (or not) any of the automatic fire sequences in the automated defense of the area. The room is now, of course, empty. The automatic sequences are now running all of the reception procedures. This only works because the reception area, and especially the DECON facilities, come under those areas serviced by the emergency power grid of Prime Base.

The door to this room lies in its south wall. Access is controlled by MPIDs possessed by former Base Personnel so entry by any intruders, Project members or not, would have to be by force.

The room has two windows, one facing the door of the "clothing room" (Area 10) and the other facing into Area 13. Both of these are of the armored glass type as exemplified by the security measures found in some banks and liquor stores. Beneath each of these windows are additional laser turrets (these could only be fired by people in Area 12). The windows were present for the use of the security personnel in viewing people entering Prime Base.

All of the activities of the reception area could be monitored and controlled from the security post. View screens are present for each of the surveillance cameras of the area. From here, orders could be issued via intercoms to anyone passing through these areas. But since the demise of the Base Personnel, the security post has been empty, waiting to operate under emergency power if anyone entered the area via the elevator or the stairway to the surface.

Area 13 is the "normal" entry passage to the Base, the one that would have been used had there been no threat of CBR contamination. The door in the right (south) wall of the entry room leads to this area as can be seen from the map.

Because of the "current emergency", the door is electronically locked by the automatic system. Most of Area 13 is a corridor leading to the security window of Area 12 and on around the side of Area 12 until the door into Area 11 is reached. The door into Area 11 is not locked from the Area 13 side and works in the same way as the door from 10 to 11.

The route from the entry room to the security area, and hence to the Base, is obviously much shorter via Area 13.

MAIN ENTRANCE: PLAY OF THE GAME

The team in this scenario is assumed to be the first group of people to enter Prime Base since the Base was neutralized (more than 150 years ago).

Prime Base ceased to function as the result of biological contamination from within and the threat of radiation from without.

CBR contamination constituted an emergency. As soon as the contamination had been detected, the reception area of the main entrance was ordered to process any and all incoming people through the CBR DECON area of reception. This command was never rescinded so it is still running under the automatic system.

Thus the automatic system still routes personnel through DECON and will continue to do so until one of two things happened: 1. Somebody gets to the command center and alters the emergency orders, or 2. Power finally goes off or the system/Base is destroyed.

The entire reception area has been dormant since the Base closed down but will become active again when the team enters. The showers and other equipment of the reception area are self-contained units independent of the rest of the Base; by their nature, they have to be. Water used in the DECON process cannot be safely recycled with the water used by the rest of the Base.

All of the automatic systems of reception are controlled from Area 12, the security center. Everything within the SecCen still works, but as has been pointed out, it is no longer possible to enter the room without taking extraordinary measures.

All of the cameras, intercoms and weapons system controls are in this room so, while they all operate, only the lasers in the entry room can react to intruders. More importantly, some of the doors in this area are tricky: they only open from one side. Both of the doors in the entry room are of this type, they only open from within the entry room, thus preventing people from going back through them. Both of the doors into Area 11 are the same: you can go in but you cannot go back. There are controls in the SecCen to open the doors electronically, but since it's hard to get into Area 12...

This is very important in terms of the game. If the team has come through DECON and followed the instructions given, they will arrive in Area 11 clean, dressed in new clothes and completely bereft of arms and equipment. Without these, and particularly any explosives they might have had, they cannot force either the door or windows to Area 12 or get back through the doors to where their gear is.

A word on the automatic doors is in order here. Each is an armored door worthy of a bank vault. The doors slide in tracks, are very heavy and are ridiculously overpowered. They close automatically when the cameras in an area show that all personnel in an area have passed through the door. They move very quickly.

In the unlikely event that a door should be open at the same time that its monitoring camera is destroyed or otherwise

neutralized, the door will close at once. Anything placed in the way of such a door will be destroyed by the door when it closes unless the object used is heavier and/or stronger than the door.

(An illustrative example for the sake of argument: Assume that it were possible to build a brick wall in the doorframe while the door was open, completely filling the opening. Further assume that this was allowed to set. If the door was then closed, it would reduce all of the bricks and mortar in its path to dust, almost instantly!)

A human body caught by such a closing door will at least be damaged. If the head, neck or any area of the torso is caught, death results at once. If the door should close on an appendage, it is crushed and any body part caught on the far side should be considered amputated.

Half of the contents of a demo pack would be required to blow one of these doors off of its tracks. This would not materially damage the door, it would just move it. The team's anti-armor weaponry (LAWS, Dragons, etc.), if any, would put holes in such a door, but the use of these backblast producing weapons in these confined quarters is guaranteed to fry the team.

These conditions have the further effect that the team, depending on how they entered the area and what they have left to work with, may not be able to get out of the Base again. At least, not from this point or without having located and raided the stores of the Base. Should this be the case, the PD is encouraged to lose no time in suggesting this fact to the players.

Entry Tunnel

There is no map showing this tunnel in its entirety, just two maps that show either end of the tunnel. This is the tunnel that connects the entrance of the Base to Level One in Operations.

The tunnel is unusual in some of its features, perfectly normal in others. The tunnel is straight; it goes directly from the entry of the Base to the first Level in Ops. It begins its journey with its floor level averaging 50 meters below the surface of the ground above. But by the time the tunnel terminates at Ops, the average is 51 meters below ground.

Obviously, the floor of the tunnel is not level. Yet the difference in depth does not occur in the form of a uniform ramp leading downward.

The tunnel is roughly 100 meters long. In the first 30 meters of the tunnel (figured from leaving the Entry of the Base), the floor of the tunnel leads down into the earth at a steepish angle for a total "drop" of two meters. Then, for the next 70 meters, the tunnel gradually recovers a meter of that descent, until at the entrance to Ops the floor averages 51 meters below the surface.

The steep angle at the beginning of the tunnel is a defensive measure. Personnel walking along the tunnel will have no trouble keeping their footing but running is well nigh impossible without falling. Furthermore, people walking that stretch of the tunnel will, for a time, be in full view of Post One in Ops and, by virtue of being located on a slope, at a terrible disadvantage for purposes of firing or cover should hostilities occur. The long walk up from the lowest point of the tunnel insures that invaders will not roll unpleasant items toward the Base with a gravity assist.

The dimensions of the tunnel are otherwise unremarkable. The width of the tunnel is a constant 2.6 meters (or a little over 6 feet). The height of the ceiling above the floor varies as the roof does not follow the gyrations of the floor than it must. The height of the ceiling above the floor at the end of the tunnel at Ops is 2.5 meters. Toward the entry this distance grows greater for a while, as the ceiling keeps a straight course. The ceiling "turns upward" at the steep end of the tunnel and ends with a height of 2.5 meters above the floor at the Entry end of the tunnel.

OPERATIONS CYLINDER: OPS LAYOUT AND DESCRIPTION LEVEL I: SECURITY, MEDICAL SCREENING AND SUPPORT SERVICES

Under normal conditions, the first level of the Operations Cylinder was also the main entry and exit point from Prime Base. It was intended to be the point through which all new personnel and transients were processed. Services used in this role were concentrated here.

Because of this role, this level was also the most potentially vulnerable in the event of an intrusion/penetration of the Base. For this reason, the main security post of the Base was also located here.

Entry Corridor

The first Ops level is the far terminus of the corridor that leads from the reception area to the Base itself. Upon reaching the outer ring of the first level, the corridor continues to the left and right, making it theoretically possible to proceed in either direction. In practice though, access was not automatic. The first thing that any arrival at Prime Base saw was the security complex at the end of the corridor, and its vigilance had first to be satisfied before any other progress was possible.

Left and right movement was confined by blast doors to either side of the security checkpoint which, when closed, could block passage down either or both of these directions. But when the doors were open, the left way led to the "in-processing" areas, and the right way led to the medical screening area. Both passages were copiously provided with monitoring cameras. The corridor itself was well lit from recessed fixtures in its roof. The walls were painted a uniform light grey.

A. THE SECURITY COMPLEX

The mission of this complex was twofold. First, it was the Base's entry control facility. In extremis, it would serve as the Base's first internal line of defense in the event of an attack. In this function, the Security area was a neo-military enclave, staffed by MARS personnel.

The second function of the complex was to be the closest thing the Base had to a police station. The Project planners did not anticipate a "high crime rate" within Prime Base, and in the event, there was next to no crime. But it was also realized that some facilities were desirable for handling unusual situations of a "police" nature. The capabilities of the center were thus geared for prosaic tasks as well as for open combat with intruders. These included several "cells" for the detention of prisoners (which were occasionally used as holding tanks for personnel who became drunk and disorderly).

Most of the time, all that the security forces did was monitor the many cameras of the complex and play cards. The waiting room of the "station" saw more lost children pass through than wrong-doers. Prime Base was a peaceful place to live.

A1. "Post One"

"Post One" was the unofficial name of the security station at the end of the tunnel to the reception area. From here it was possible to look down the entire length of the tunnel. One or more security personnel was here 24 hours a day to do just that.

The wall of the room facing the tunnel was armored. A row of windows made of bulletproof and blastproof lexan (four inches thick) ran the length of the wall. These windows were set at waist height from the floor and ran to a foot below the ceiling. The areas above and below the windows were fronted with armor

plate. These precautions were sufficient to stop projectiles up to and including a .50 cal. HMG slug, or the blast of any known fragmentation or concussion hand grenade.

Below the window were twin gun turrets, each mounting a laser and a 7.62mm GPMG of the FN type. These were controlled by operators at the windows, or via cameras from below the windows. Cameras, both visual and thermal, were part of each turret package.

Operators sat or stood at a counter/desk that ran the length of the windows inside the room. From here, they could control not only the weapons in their turrets, but also the blast doors giving access to the corridors away from the tunnel. Monitors for the corridor and tunnel security cameras were also located on this console. Four swivel chairs completed the furnishings of the room.

Phone communications with Base Commo Center (COMCEN), the ready room and the DO's office were also a part of the control console, as was a clock/calendar. The rest of the room was bare, and the walls and ceiling were painted a uniform "hospital white".

The command console also had arrangements whereby the security team could address personnel in the tunnel via a P.A. system, or listen to exterior sound from that area. Recognition of incoming personnel was ideally handled on a "sight" basis and people were let in and out according to visual recognition by the security personnel on duty. There was also a camera/voice/MPID identification station located between the twin turrets, well within their fields of fire. This was tied directly into the Base's personnel computer, allowing instant recognition, or rejection, of all Morrow personnel.

P.D.s should keep in mind that this room not only controlled who got in to the Base, it was just as important in keeping people from leaving.

A2 "Ready Room"

The Ready Room was a combination duty post and lounge area for off-duty but on call security personnel. The duty post could be handled by one man, and was located against the wall separating this room from "Post One". The post consisted of a control console that duplicated all of the monitors and commo hookups of Post One. The post consisted of a control console that duplicated all of the monitors and commo hookups of Post One, but had in addition monitors that showed the interior of Post One, each of the detention cells, the corridor serving those cells, and the "police station".

The rest of the room was given over to comfortable chairs, a bookcase, a coffee dispenser, and a few "recreational" devices consisting of a pool table, ping-pong table and a card table and chairs. As a rule, there was always someone or other in this room as well as whoever was on duty at the control console. The duty post was manned 24 hours a day.

A3. The "Police Station"

As these things go, it was not much of a police station. The room was designed to deal with the infrequent police-type business that might come up within the Base. As has been mentioned, it was most often used as a "holding area" for lost children until their parents came to claim them. The walls, and even the door to this area, were of plate glass where they abutted on the public

corridor around the Trans Core. There were a few low tables amid chairs in the "waiting area" of the room. The waiting area was most of the room. A waist high counter a few feet from the west wall of the room was the only "business" area of the station. This was not even manned most of the time, normal procedure was to come in and ring the bell on the counter for service, which was usually answered by someone, officially off-duty, from the ready room.

A4. Bunk Room

Security personnel pulled 24-hour shifts of duty. During this time they were not always expected to be at a post as this was not only unnecessary, but impractical. But during each duty shift they had to be in a place where they were ready and available for work at a moment's notice. The bunk room was where they slept or rested while on duty.

The room contains 10 stacked bunkbeds with footlockers for each. These furnishings were placed against the walls, leaving ample room to get to the four doors of the room.

The south door of the room, leading to the public corridor, could only be opened from the inside. There is a window of one way glass set in this door to allow entrants to be looked over before the door was opened.

A5. Latrine

A latrine was included in the security complex so that personnel would not have to stray far to answer nature's call. In addition to the fixtures normally associated with latrines, this one has two shower stalls,

A6. Arms Room

This room has armor plated walls, one meter thick, and its door is much like that found on bank vaults. Inside this room were stored the weapons of the security personnel on duty as well as "spares" for use by more people if necessary. When fully stocked, the room contained 10 HP-35 pistols, 10 Ingram SMGs, 10 M23 carbines, 10 M10A shotguns, and 5 M79 grenade launchers. Also present were cases of ammo in the following calibers and types: 1 case each of 9mm, 5.56mm, 12 ga. 00 buck, a full case of 40mm stunbats and CS, and cases of CS, CNDM and BZ gas hand grenades. Filling out this list of hardware was an appropriate assortment of pistol belts, web gear, ammo pouches, magazines and other accessories. All of this was kept in racks and lockers around the walls of the room.

A7. Duty Officer's Office

The term Duty Officer is slightly misleading. There were of course no officers per-se in the security establishment of the Base, just people who filled a job via appointment, experience and seniority. The person who performed the following duties was referred to as the Duty Officer or "DO".

This room was his duty post when he was not elsewhere dealing with one situation or another. His desk and computer terminal were located against the south wall of the room. Also present in the room were two other duty posts, each manned on an "as needed" basis. The first was a bank of monitors above a control console, spanning the length of the west wall. From this point, all of the security cameras of the Base could be monitored and controlled. The second post was located against the east wall and was a communications terminal/switching system. This was the security center's main commo center, allowing "wire" communications with any point in the Base. It was also the point where any and all calls to security came in.

In practice, given the placid nature of the Base, this room was usually manned by the DO alone, who had ample time to cover all three positions.

A8. Detention Cells

There were only five of these present. This small number was thought ample because no real crime problem was foreseen for the Base. Indeed, the primary purpose of the cells was planned to be the holding of the drunk and disorderly and possibly a troublemaker or two from "outside".

Each cell is thickly walled on three of its four sides. The fourth side faces the access corridor and is composed of bars. A door

is set in each of the barred walls. The cells contained two bunks apiece and basic sanitary facilities. They were laid out in such a way that it is impossible to hide from observation from the corridor. The cell doors were locked and unlocked with keys kept at the control console in the "ready room".

A9. Detention Cell Access Corridor

The corridor is an empty hallway stretching from the Ready Room to the Medical Screening Area (B). The door leading to the Med area could only be opened from the corridor side, and there is a pane of "one-way" armored glass set in the door to allow inspection of would-be entrants. The other end of the corridor terminates in an identical door that can only be opened from the Ready Room side.

Pods of security cameras stud the ceiling of the corridor. In all there are 7 cameras, one for each of the cells and one each facing the doors of the corridor. These cameras were monitored at the consoles in the other parts of the security area.

The armored doors at each end of the corridor were operated electronically by virtue of an unlocking button located on the wall next to the door.

B. THE MEDICAL SCREENING FACILITY

This complex was not a true hospital, though to an uneducated observer it might appear to be just that, albeit a small hospital.

While not a hospital, this complex could perform many of the functions of one.

The MSF had two missions of equal importance. The first was the medical screening of personnel entering or returning to the Base. Personnel arriving at Prime Base for the first time were required to "in-process" this area. Thus the MSF was equipped to conduct large scale physical examinations along military lines.

The second mission of the facility was to provide emergency medical help to casualties, especially those just brought in from "outside". With this in mind, the center was provided with the tools necessary to handle emergency surgery and trauma victims in a variety of forms. Note though that this service was intended to be used only when necessary, and victims were *not* supposed to remain in the area for any length of time. Patients were to be transferred to the Base hospital as soon as their condition permitted it. Thus the emergency character of the facility was one which was supposed to preserve life long enough for it to reach the hospital. At the hospital they'd try to save it.

B1. Reception/Briefing Area

This room was entered directly from the Base's Entry Corridor. Here newcomers were received into the Base and briefed as to what was about to happen (in-process medical). The room contained a number of chairs and benches provided for the convenience of those waiting their turn to enter the screening areas. A clear path was always maintained between the door to the Entry Corridor and the door leaving the room to allow unobstructed passage for any emergency case that might arrive.

The door leaving this room was a wide, "hospital" type with two swinging panels. This was flanked on one side by an open counter which gave access to the Admin area of the MSF. It looked much like any hospital ward's nurses' station.

B2. Admin

"Admin" is an abbreviation of "administration". This room was, therefore, where administration of the MSF was carried out. As such it was primarily an office dealing with daily routine. When outsiders or emergencies cropped up, it was the nerve center of the MSF. Its most constant function was as the commo center for the MSF.

Most of the room is taken up by desks and other office furniture. There are three doors leading from the room. The first is the door to the rest of the MSF (see B5). The second leads to B3. The last led to the security complex via the cell access corridor. This door has no handle or other means of opening on this side. Personnel rang a "door bell" and waited for the door to be opened from the security side. The side of Admin facing area B1 is open for part of its length in the form of a counter across which much of the business of initial in-processing could take place.

B3. Records

The records section of the MSF is located in this room. No paper records or files were kept here. In fact, the room is empty but for three desks and computer terminals. These terminals had access to the records section in the Personnel Area below and therefore to all of the medical records of the Project as a whole. The creation of new medical files for new personnel could begin from this point too.

B5. Trauma Reception

This is the emergency room of the MSF. It was designed to handle a number of casualties in as short a time as possible. Ideally, such would proceed from this point to the hospital. In the event that immediate surgery was called for, this room doubled as a prep for that process. The room was well stocked with all of the gear that it might need to support its mission.

B6. Surgery

For cases too critical to risk travel and delay, emergency surgery could be conducted here; up to two victims at a time. The room was equipped with everything necessary to this function.

B7. Supply

All of the "ready" supplies of the MSF were stored here. In practice such supplies were usually limited to critical items essential to the mission of the MSF: drugs, dressings, oxygen, even whole blood in a small cooling unit. Paper clips and other non-essentials had to come from elsewhere, they were not kept here.

B8. Post op

Up to five post-operative patients could be kept here and looked after properly until it was judged safe to move them. As such, the room functioned as a small hospital ward. Rolling gurneys were used rather than beds, and a small store of emergency equipment was present.

B9-B12. Gang Physical

This set of four rooms, all interconnected, was intended for "gang" physicals in the military style for incoming personnel. When used as intended, a "bare-skin parade" would move in a line between the rooms. Each room contained "stations" at which assorted tests were made. These included things like chest x-rays, hearing tests, blood tests, etc. The idea was to move as many people through as quickly and as efficiently as possible. By the time the examinee reached the last room, he would have received a complete, if rudimentary, physical examination. If any problems were uncovered, a follow-up in more detail could be conducted by the hospital.

The rooms themselves contained a plethora of benches, desks and medical equipment necessary to the screening mission. It was planned that the average examinee would move through "the whole line" in about an hour. (This area was never to be manned unless a contingent of new personnel were expected at the Base, so no "watch" was kept here.)

B13. Completion

The final room in the "gang physical" line was the point at which the examinees could get dressed. It was also the center for the transmission of their "new" medical files to room B3 and beyond. Here, too, the new personnel would be directed to where they had to go next. The only exit from this room led to the public corridor of the Base proper, from here the new person was in Prime Base and was assumed not to require constant supervision or surveillance.

From this point Base personnel would continue with their normal duties. New personnel would go on to continue in-processing. The remainder of this level was designed to accommodate such business and to handle the normal routine of Base residents.

C. CENTRAL IN-PROCESSING

In-processing occupies that part of the level that is opposite the MSF with regard to the Entry Corridor. One leg of the corridor led around the periphery of the center and ended near a door of it allowing new personnel direct access to it without having to go through the MSF. (Note that this route was also intended as the usual small party exit from the Base should such be called for.)

This in-processing area was designed to orient new personnel with the Base, its layout, its procedures and operations. It might be thought of as a stationary "welcome wagon".

C1. Briefing Room

This very large room was furnished with benches and a lectern. Here large groups of new arrivals would be greeted by a member of the Base staff and informed of pertinent matters like how to find one's way around the Base. Standardized packets of information would be handed out to such personnel. Transient personnel would hardly require much else at this stop, but prospective permanent personnel additions would go on to C2-6.

C2-6 Interview Rooms

The interview rooms were designed to handle the detailed in-processing of new personnel and their families, if any. An interviewer would question arrivals and enter the information thus gained into the Base's personnel files via the computer terminal in each room.

Many functions were carried out here, not least of which were things like tentative job assignments and the like. For non-Morrow personnel, this was the place where they became a part of the Project. The interviewing process could last from minutes to days, depending on the nature of each case. But upon leaving this center, the new person was either "in" the Project or on his way back outside.

D. MPID SHOP

New personnel and current personnel who had met with mishap or whose status had changed would need new Morrow Project Identification Cards; this shop was where they were made. The "front room" of the shop held the devices necessary to create these: the typewriters, blank cards, desks, chairs, photographic gear, and plasticizing equipment. With a "full crew" operating the shop, a new MPID could be had in little more than an hour, or much less in special cases. The "back room" contained records of MPIDs issued. All of the cards in the Project were listed there from a computerized source. Paper and computer records were kept in the case of Base personnel.

E. HOUSING/BILLETING

The large number of people present in the Base and the expected influx of many more had to be planned for. This could be a problem given the physical limits of space within the Base. The housing/billeting center was to resolve these problems and keep everything running smoothly.

The center had two "sides" to reflect its two main functions. The first was to deal with new personnel coming into the Base, transient or permanent, and arrange temporary or permanent housing accordingly. The second handled the day-to-day problems or changes within the established permanent Project personnel.

E1. Reception

This was a large, lobby-like room where new personnel waited to get their housing assignments. Mass briefings explaining the situation and procedures, could be conducted here, but the room was primarily a waiting area.

E2 Housing Director's Office

This was the office of the person in charge of all housing operations; the troubleshooter of last resort. The office contains a desk, computer terminal and a variety of comfortable chairs. People never came here unless there was a problem that could only be dealt with from here.

E3, 4, 6, 7, 8, and 9. Interview Rooms

These rooms were used whether people were "permanent party" or just arriving. When a room was open, it was used. People in Personnel did the fine tuning on assignments in these rooms. The theory was that when you left one of them, you had a home to go to.

E5. Housing Lobby

This was the waiting area for permanent residents of the Base who had come with a problem or other reason for visiting the

housing area.

The problems were many and varied. Everything from difficulties with the plumbing to requests for new "roomies" to families requesting a larger "apartment" because a new child was expected. The lobby was a waiting area used until an interviewer and room was available.

E10. Housing Records

All of the housing/billeting records of the Base were kept here. Here they were constantly monitored to keep an accurate listing of what space was being used by whom, or was available. Records were kept on computer, but paper lists were also maintained.

More space was allotted for this task than was actually needed. This was because the records here were planned for expansion as the Base and its personnel grew in the years following the War. As a result, much of the room (about 70%) was still empty of all but shelves, blank paper, and empty folders.

PLAY OF THE GAME: LEVEL ONE OF OPS, LIFE AND SUPPORT

These three levels, the first in each of the Cylinders of the Base, are going to be treated together for purposes of playing the game. This is desirable given the fact that these three Levels were treated as one by the Base personnel in the Grand Deception.

The majority of what should be covered in this Play of the Game section was already covered under the Grand Deception. PDs should refer to that text for general information. This section will repeat some of the highlights of the Grand Deception but then devote itself to pertinent details of the three levels concerned.

Remember that there were two "deception plans" carried out by Base personnel: the Final Deception and the Grand Deception. The inopportunistly named "Final Deception" was the first of the two. This was the plan to deface all of the place names in the Base and prepare for close-in fighting. That plan was carried out while Base personnel still thought they were going to live through things. The "Grand Deception" was carried out after people realized they were not going to live. It was designed to make the first three levels of the Base appear to be all of the Base. It incorporated and improved upon many of the things that had already been done under the Final Deception.

The Grand Deception relied on many things for its effect, chief of which was the already diverse nature of the three levels concerned. The first level of Life was composed of quarters, the first level of Support consisted of a farm. Neither of these levels required anything in the way of camouflage to make them look like something they were not; they already appeared just the way the planners wanted them to. It was, however, necessary to modify the first level of Ops so that it would be mistaken for the entire operational center of the Base.

All this means that Life and Support needed comparatively little special attention to fit in with the plan, while Ops needed quite a lot. Remember that the goal of the Grand Deception was to make these three levels look like the entire Base.

These are the gross considerations of the Grand Deception. They apply to major efforts of misdirection and concealment.

From a tactical point of view however, all of the levels concerned needed no small amount of effort to look their part. This was not camouflage so much as it was cosmetic reinforcement to the camouflage efforts already applied.

General Considerations

Since all three of these levels were intended to simulate a complete base, there are circumstances which are identical in all three for the sake of uniformity. Differences in conditions are addressed level-by-level but conditions that are common to all three will be presented here.

Emergency power was not supplied to these levels in the usual manner, in fact, there is very little of it at all. There was, for instance, no provision for emergency lighting in the corridors. Emergency power, where it is present, is usually found only in passive modes as in the operation of electronic locks. The bogus "warning lights" installed above the doors to the Trans Cores do have power, but the lights are defunct. The lack of emergency power is intentional.

It was felt that "leaving the lights on" would not be as convincing that the Base was abandoned.

This was also true of locked doors. These too were kept to a minimum, though there are some on these levels. Doors were left unlocked wherever possible.

The Grand Deception wanted to create a specific impression in the minds of intruders: that the Base had been abandoned in a panic. (It was left to the imaginations of the intruders to decide what had caused such a panic.) To do this, the "evidence" on these three levels played to the notion that Base personnel had rapidly (and sometimes inefficiently) destroyed everything of importance, turned off the lights and run from the Base without closing the doors behind them.

To this end there is a lot of debris lying about on all three of the levels. This does not come in the form of great heaps of discarded goods, but more in the way of isolated scraps that were cast aside in haste or dropped and overlooked. Nowhere is the clutter very great, but it is found everywhere: in rooms, in corridors, on shelves and in corners. Here again, the intent was to make things look as though people, as they were leaving, tried to take as much as they could with them.

There are no bodies here, no skeletal remains. Aside from the fact that the presence of such would have interfered with the impression of a voluntary departure, the organizers of the Grand Deception would have none of it. They were unwilling to leave their honored dead where they might be disturbed by grave robbers as a matter of course. (They might have done so had they been convinced that such was the only means of authenticating the charade, that is, if the Mission had called for it. But it did not. They were in fact confident that a Base with no bodies was more convincing of an abandonment than one with a few bodies.)

Operations

This level merits special attention for a variety of reasons. First, it is in all likelihood the level on which the players will be entering the Base. Second, it is the only level of the three involved in the Grand Deception that received a lot of modification. It is this level more than the other two that will yield up "clues" as to the nature of the deception (though not to the actual extent of the Base.)

Players entering the level via the tunnel from the entrance to the Base will come up against the defenses of Post One. These are not operating, and have no power or personnel to man them. The windows of the Post will reveal little: it is dark and these windows are not terribly clean. Without a source of light to shine through the windows, nothing beyond them can be seen. With a light source, very little can be seen.

The doors to the players' left (east) are sealed, the doors to their right (west) are open; the players may thus proceed toward the medical screening facility. That area of the Base is much as it was described in the text, very little having been done to it. All of the equipment that it had is still there, all of its rooms remain open. But the names on the doors are gone, there are no files in the area provided for them, and the place is not "neat". Many things are lying about where they ought not to be, as if the place was ransacked and then left in a hurry. Most interesting, should anyone look for this fact, is that *all small or portable* medical gear is missing. Gurneys, lights, cabinets and tables are still here, as are smaller items like glass jars, linens and other common goods, but essentials like stethoscopes, drugs and other equipment are not to be found. One *might* gather the opinion that the place was stripped of these things by fleeing personnel.

The medical nature of the facility is also obvious and no attempt was made to conceal it. But one might also gather the impression that this small facility was this small base's hospital. If one assumes that the three levels involved in the deception are all there is to the Base, this is not an unreasonable assumption. There is certainly no evidence to the contrary.

All of the doors leading to the security complex (Post One)

are locked, including the one from the medical facility. These doors are unmarked and unremarkable save for the nature of their locks; and that is a distinction of some subtlety that will not reveal itself to the casual glance.

The glass walls (tough, security glass, it should be remembered) of the "police station" will reveal the waiting room beyond; if the Team has a light to shine in. Otherwise, there is no particular reason to be curious about the area, unless the Team has figured out that this is the area that lies behind those windows that fronted the entry tunnel. If the Team really wants to get in, it can. A door can be broken down, perhaps using one of the benches from the waiting area of the medical facility as a makeshift ram. But this will take time and will not be easy.

None of the doors within the security area are locked, so getting around inside will not be difficult. When the area is fully explored it will not be hard to guess what its function was: up to a point.

The camera monitors, weaponry controls, ready room fixtures, etc., all speak for themselves. The arms room, standing empty with its door open, is very eloquent. While there are no items of any use left in it, the weapon racks and shelves, the locking arrangements and the nature of the door, all make it obvious what this place was.

Players might reasonably conclude that they have stumbled on the complete security system of the Base. They may decide that the arms room, while small, was adequate for meeting the needs of this "base of three levels". Here too there is evidence of rapid "strip and leave" activity, which would support such conclusions. (The only anomaly in this are the five jail cells. If the Base was so small, why were there five cells? Did Prime Base have an urban crime problem?! But most Teams/players can convince themselves that these cells were provided for "prisoners brought in from the outside". We at TimeLine don't understand this, but through playtesting we have found it to be true.)

The interview area on the east side of the level has been worked over to suggest that it was the mission operations center of the Base. The large room that had been intended for mass briefings is now full of radio equipment, computers and files, as though it were a common work area for everyday contact with the rest of the Project. To be sure, all of this equipment shows signs of having been destroyed to prevent capture but there are enough bits and pieces left to ensure that some can be identified by even the most casual of observers.

The same sort of "destruction" is evident in the "Project Off ices" which line the walls of this area. These show obvious signs of things like maps on the walls having been pulled down, and desks and filing cabinets left open and empty.

Topping these efforts off is the evidence of mass burnings of documents in wastebaskets and trash barrels. Great black stains left by soot from smoke are evident in several places; implying that destruction was carried out with more regard for haste than safety. Empty but obviously used bulletin boards hang from several walls. With so much haste the destruction of all documents might reasonably be doubted by the Team and if they search diligently they will be rewarded by finding papers only partially destroyed. These will support the position that the Base was abandoned rapidly in the face of some danger, though what the danger was will not be specified or hinted at. The documents will also point to the fact that there are only three levels - and the entry of course. The destroyed portion of the map was for the nuclear reactor area ... the name is still there to be read, but there is nothing else.

The assignment and interview areas on the south side of the Level were "modified" in exactly the same way as those above just mentioned, save that this area was made to look like it was the administration center of the Base and had less to do with the Project as a whole. Thus there is no radio gear here, but it appears that a phone exchange was destroyed in one of the former interview rooms. ... Of particular note is the long, curving room at the extreme south of the area. This place appears to

have been the computer center of the Base, and it has been utterly trashed. It would seem that first there was a fire, which was put out with an unnecessary extravagance of water, and then the debris was beaten to kill any remaining sparks.

No vestige of the original purpose of the I.D. Card shop remains. All of the special equipment needed for card production was removed and placed in the GSS system. The empty area was then made to look as though it had been serving as a modest, all purpose area. That area was, of course, stripped of all useful items in the course of the "evacuation". Now it is littered with empty boxes, broken crates, and the accumulated garbage of the "withdrawal".

OPS CYLINDER, LEVEL 2: PERSONNEL AND ACCOUNTING

The second level of the Operations Cylinder was given over to personnel records and operations and the "accounting" (supply) system/management of the Base.

Access

Being an intermediate level, Ops Level 2 could only be reached from above and below within the Ops Cylinder. Thus elevators and stairways were the only way in or out. A wide pedestrian way surrounded the Trans Core.

A. PERSONNEL: ASSIGNMENT AND ADJUSTMENT

The personnel records in this department were not just for the Base, but for everyone in the Project.

Most of the public areas of this section concerned only Base personnel; they were where people went to get different duty assignments, etc. The largest areas of the section, those concerned with the personnel records of the Project as a whole, were off limits to the "casual browser". Keeping everybody's records up to date was the main purpose of the section.

A1. Personnel lobby

This long, curving room has glass walls fronting the access area. Within, the lobby was furnished with chairs and couches for the convenience of those waiting to be helped. There were potted plants, low tables and old magazines. Toward the back of the room was a long counter occupied by computer terminals. These could be used by Base personnel for routing requests and inquiries. Most of the normal business of the place was handled through these machines without any staff assistance. Six computer terminals were available on this counter.

A2. Service Counter/Operations Office

Protruding out to the computer counter, this room ended in the lobby as a "service desk" for those problems/requests that could not be fielded by the automated system. Human clerks were available to fill the gap. The rest of the room, going back to the internal corridor of the personnel section, was an active office for handling the day-to-day business of the section,

A3. Interview Rooms

There were four of these, designed to fill the need of cases that could not be handled via the automatic or desk system. Each has a desk, chairs and a computer terminal. Note that all of these rooms have both front and back doors.

A4. Personnel Director's Office

This was the office of the personnel director. It contains a desk, chairs, books, computer terminal, etc. and is wholly unremarkable,

A5. Personnel Operations

This large, curved room was intended to be the nerve center for all Morrow personnel activities once reconstruction got underway. There are desks and computer terminals for about 20 people. Of course, during the short career of the Base, the full operational potential of the personnel system was never realized; there was no need for it. But the fact remains that it *could* have been used.

A6. Personnel Librarians Office

This office is much like the director's but noticeably smaller. It was the post for the person in charge of the Personnel Library: all of the physical records of the Morrow Project personnel. The room also houses the central computer for personnel records for

the entire Project. It's not very big, but it does a sensational job.
A8-9. Personnel library

Number 8 refers to the library files suited to computer retrieval, 9 to paper records. This area is vast. All of the personnel records of the Project are here.

Notes On The Personnel Complex

These rooms were intended to handle all of the personnel records of the Project from the time of the War forward into the foreseeable future. Of course they did no such thing. Like many other areas of the Base, most of this center was never used. The majority of its appointments are in brand new condition. There was neither time nor need to use them.

The center, and particularly the library, remains an impressive tribute to "the best laid plans..."

B. ACCOUNTING/SUPPLY CENTER

This area had two prime functions. The first was to administer the strange "accounting/pay" system of the internal economy of the Base. The second was to act as a central library for all of the supplies and equipment of the Base and the Project. Records, and the means of altering them, were centralized here.

B1. Accounting Lobby

Though smaller, this room is much the same as the Personnel Lobby (A1). Glass walls front the access area, chairs abound, and there are six computer terminals on counters to either side of the room for the use of Base personnel. The area was intended to serve those who had some question or difficulty regarding their "account" with the Base. Most of these inquiries could be handled by machine.

B2. Accounting Operations Office

Like its counterpart in personnel, this office had the double mission of dealing with problems that the "public computers" couldn't handle and the day-to-day affairs of accounting. Unlike the personnel office, most of the daily affairs of accounting were only routed through here, not handled here.

B3. Interview Rooms

These are just like all the others.

B4. Accounting Director's Office

Just like the Personnel Director's office.

B5. Accounting Operations

This is just like its counterpart in personnel, but only 1/3 the size.

B6, 7 & 8. Accounting Library

As with their counterparts in personnel, these rooms are the archives for the area. They hold all of the accounting records for the Base and the Project.

PLAY OF THE GAME: OPERATIONS CYLINDER, LEVEL 2, PERSONNEL AND ACCOUNTING

The services found on this Level were crucial to the Project and to the day-to-day operations of the Base but they were not so vital as to merit inclusion on the Emergency Power Grid. Only the Corridors, the Trans Core, and the vast records storage areas were served by emergency lighting. The electronic locks, like all electronic locks in the Base were also functional under emergency power.

Both Personnel and Accounting were heavily dependent on computers for fast access and handling of information. They might also have provided vital information to invaders so steps were taken to protect them.

The computers and terminals are still in place and would be operational if the Main Power Grid were restored. But all of the Project data held in their memories has been scrambled. This data, most importantly the Project's personnel records, has been encrypted and the encryption key and algorithm are hidden within the Director's personal computer in his office. The description of how this key can be accessed is in the section describing the Director's Office.

This could not be done with the paper personnel records but it wasn't necessary anyway. The computer files were scrambled to prevent an enemy from having rapid access and cross-referencing to sensitive data. This was never a problem with the paper records: there's nothing rapid about them.

As a result, all of the paper records are here but in the final days of the Base they were "democratized". This means that all special filing categories, say, for Base Commanders or Team Leaders, or for job specializations or any other useful classification were removed. All files rest in neat rows arranged alphabetically with no exterior markings of any kind. The special information still exists within each file.

If an intruder (or a Team member) wanted to know who was commander of Prime Base, he'd have to look through the personnel files until he got lucky.

Note that this kind of information can still be had at the lift of a finger, if the Team gets the power back on and unscrambles the computer records for Personnel. These computer records contain detailed information about how to repair the paper files,

The personnel records in this area are more important than a Team is likely to know. At first, while the Team is just trying to stay alive and maybe turn on the Base, such records are of no value: first things first after all. But when the Base is operational, and the Project is moving forward again, these personnel records will be worth their weight in whatever precious item you care to name.

These are the only files on Earth of people with pre-War knowledge and know-how! There are Team rosters downstairs (see the following sections) but these list only assignments and specialties. *Specifics* only exist here. When the powers-that-be wanted (or will want) an ambidextrous armadillo trainer, these were the records they consulted. With the computer up, they could punch in a request and get an answer back in a matter of seconds on whether or not the Project had any people with the required talents, and if they did, where they were. This will be true again: if the Team gets everything running again.

There is also an important *negative use* for the files. Many of them will have to be closed out. This will reflect the losses the Project has suffered and will keep the database current.

OPS CYLINDER, LEVEL 3: MISSION OPERATIONS

The Mission Operations area had next to nothing to do with the functioning of Prime Base. At least not directly. "Mission Operations" refers to the overall mission of the Project, the activation, guidance and direction of field teams. All of this was conducted, or would have been, from here. Base operations were handled from a different area.

If the Project has a Command Center, this is it.

A. OPERATIONS FLOOR

Note that the Trans Core empties directly into the heart of things on this Level, there are no walls or doors separating the activity from those who need to get at it.

The Operations Floor proper refers to the northern half of the Level, most of which is open floor space. The areas comprising this section are broken down as follows:

A1. Team/Situation Map

Covering the entire expanse of the north wall of the room, this is a gigantic electronic map. When operational, it was controlled by operators from desks on the floor. Its purpose was to show a number of things, depending on what was called for. Primarily, it was to show the location of all Morrow teams at any given time, according to the best information available. It was programmed with the exact locations of all Morrow installations, down to the last Bolt Hole. Situations could be "called up" on the map, usually from the much larger displays found lower in this cylinder. The map was, in short, a very versatile visual tool.

A2. Primary Situation/Activation Computer

The hardware of this machine stretched all the way around the northeast perimeter of the chamber. The machine had a number of functions, among which were:

1. Activation of "sleeping" teams. (Through interfaces with the Base Commo center.)
2. Update and control of the team/situation map.
3. integration of situation data for display and/or analysis,
4. Interface of Mission Operations with any other part, or computer, in the Base.

It was a very capable machine.

A3. Auxillary Situation/Activation Computer

This machine was the twin of the first. It existed as a backup to the other and control could be instantaneously switched from one to the other with nary a bobble.

A4. Operations Area

Consisting primarily of open floor space, the area was nevertheless cluttered with desks, chairs, control consoles, waste baskets and other what-not. These work stations out "on the floor" were the point from which the computers and the map were controlled from. They were also the stations from which orders and decisions would have been made known to teams in the field via interfaces with the Comm Center. These 20+ positions on the floor were the "hands" of the Mission Director, the means by which he made his will known to the teams.

A5 and A6. Director's and Assistants' Offices

These rooms are located in what amounts to the center of the Ops Floor. The Director's office (number 5) is the middle of the three. Each office is glass walled on its north side allowing for the best possible view of the map.

The offices are typical of the breed and offer nothing remarkable in the way of contents or souvenirs. Each contains a desk and computer terminal and the Director's sports some unusually comfortable chairs. All of them have rather more than an ordinary number of phones.

It was the Director's job to formulate policy more than to direct actual operations. His office is set up to monitor ongoing efforts as well as to come up with plans for the future. The assistants were there to handle the actual "hands-on" aspects of operations: They did the dirty work. They were also there to field routine matters that might otherwise have bothered the Director. Not that the Director made decisions in a vacuum, instead, he used his largish staff to help him.

A7. Conference Room

This is a long room, also with a glass wall on its north side, that is mostly filled with a long meeting table and numerous chairs. Each chair/position at the table is provided with a computer terminal.

The room was used for staff meetings and other conferences, often including "branch" department heads. The table could seat 12 people easily. More policy was actually decided here than in the Director's office. The conference room is completely soundproof.

A8. Mission Library

This room does not have windows. Instead, it is completely lined with shelves and there are more shelves/racks in the center of the room. These are filled either with recorded or blank computer storage devices pertaining to mission operations.

B. OPERATIONS SUPPORT

This area takes up the southern half of the Level. In essence, all of the activities of this area were in support of the Mission Operations going on "out in front". From another point of view, operations "out front" could not have gone on without this sector. The "B" area was divided into the following "departments":

1. Situation analysis
2. Terrain analysis
3. Weather analysis
4. Demographic analysis
5. Mission Communications Center
6. Staff Synthesis Center

Each area was devoted to its own specialty, with the exceptions of 5 and 6. All of the areas had a number of people working in them, not just Staff Chiefs. All had a vital part of the mission to support.

What each department came up with was brought to the Synthesis Center where all of the data was blended into something at least vaguely resembling a complete picture. Decisions could then be made on the basis of the accumulated material.

The rooms of the various departments were both alike and unlike. All had a plethora of desks, terminals and other office impedimenta. At the same time, each had peculiarities unique to itself. The weather bureau for example, made much use of meteorological charts and maps on its walls while the Terrain group (known as "Bumps"), used relief maps, topological sheets, etc., etc. Thus no two areas were identical.

MISCOMCEN could not be mistaken for anything but a commo center. Operationally speaking, this was the spinal system of the entire Mission. The center could easily handle 20 or more commo personnel at a time and more could be added as necessary.

Very little traffic originated here. Rather, this was a "switching area" between the various departments of Ops Support, Mission Ops, Branch Ops (on the level below), and the incoming and outgoing commo facilities of the Base.

The mission and activities of the Morrow Project were all carefully planned before the War, but nobody was foolhardy enough to believe that these plans could survive unaltered. Calling them "plans" might be too deterministic. They might be better thought of as a "guide", a set of ideas that might be useful to the people on the spot when the time came. It was understood that the people on the spot would be on their own: there was no other way.

This Level of Prime Base was supposed to be the place from which all of the plans would be executed; it was the nerve center of the Project, the hope of the future. This Level is, more than anyplace else, the Heart of the Project.

PLAY OF THE GAME: OPS CYLINDER, LEVEL 3, MISSION OPERATIONS

Everything in Mission Operations was crucial to the continuation of the Mission of the Morrow Project. Automatic emergency lighting was provided for the Corridors and the Operations Floor. All "closed" areas (rooms and offices, etc.) were provided with emergency power on either the Conditional or Command basis. All of the closed areas of the Level were equipped with electronic locks, except for the latrines and the janitor closets.

The vast Situation Map is operational. It can be activated from any of the control consoles on the Operations Floor. It will not display accurate information (see below for details about why):

The primary Situation/Activation computer is no longer operational. Although its hardware was triply replicated, 150+ years of constant operation was more than it was designed to handle. Vital parts in all three sub-systems are burned out and need replacement or repair.

The auxillary Situation/Activation computer is operational, in fact, it will be on when the Team arrives, though the Team may not know it. See the notes at the end of this section for details.

All of the equipment on the Operations Floor is operable, it needs only to be turned on. This equipment was carefully turned off before the Level was left for the last time. While the gear here will work, there is little that can be done with it until other, complimentary areas of the Base are also brought back online.

Nor is the Team likely to know what to do with all this hardware, working or not. Granted that controls are labelled, this does the Team little good. Without training that would explain the meaning of these functions, the use of the software and the purpose of the equipment, effective use is impossible. All of this could be figured out in time, but it is not possible to infer function from a casual glance.

The Team *might*, at the discretion of the PD, be able to form a general impression of the purpose of the equipment and what

it was for, but that is not enough to be able to use it effectively.

There are locks on the doors of the Director's office and those of his assistants, but these are not engaged. There are no controls here or other devices that would have a direct effect on operations or any of the equipment on this Level (or any other). The Director told other people what to do and they did it with their equipment. The extensive phones available in these offices, like all of the other phones in the Base, are still working. Use of them is subject to the same limitations as all other phones in the Base.

There is nothing of any interest in the Conference Room and it is not locked. This is not the case for the Mission Library. That room is locked, requiring both a key and a combination to open it. The library contains complete Mission records up to a day or two before the Base stopped operating.

All Morrow field activations are recorded here - they fill up half of a tape. There just was not much going on. Remember: the Base was destroyed before actual field operations began. Most of what is on the one actual tape is "force reduction" teams or facilities which were written off due to their proximity to hits in the War. There were not many of these, but there were some.

Also in the Library is the actual Team Location program for the Situation/Activation computers. This fills two complete tapes (one for each computer). All of the other tapes in the library are blank. The "real" tapes, the two with actual locations and the one that is half full, were placed in unlabelled containers and shelved with all of the blank tapes. There is no way to pick them out from the others by eye.

Mission Operations, as has been noted in the text, was the point from which the Morrow Project was to be controlled. Two things were done here before the last, one of which will effect the Team that enters the area, the other of which has had profound effects on the Project as a whole.

The first was in keeping with the policy of deception that was enacted toward the end. This involved the huge electronic map and the computers which controlled it. Every team location of the Project, every base, every cache, was stored in these computers. These had to be removed as there could be no risk taken of these falling into unfriendly hands! Dummy data was put in their place; phonies that show bogus locations and imaginary teams and facilities,

If the Team gets the map/computers up and running again, this bogus information is what will be shown. Operations based on it will not have the desired effect...

The people who put through this deception left no warning of it. They didn't think any was necessary. It was assumed that as soon as a real Morrow Team fired up the display, they'd know in a moment that there was something wrong with it since the location of their Team would not show up on the map or it would be in the wrong place. Of course this assumes that the Team actually looks for their own bolthole, supply caches, etc. If they don't, well, it might be a very long time before they know anything's wrong.

The PD should think long and hard before letting the Team have the real data. These show all of the Project's facilities and would allow the Team to begin raising other teams at will! That's what this data is for! Even assuming that there are fewer teams now (due to hits during the War and the random activation of teams since), there are still a lot of them and the PD is going to have to create the data. It is not included in this module and TimeLine has no intention of ever releasing such a list. The PD may really want those programs to stay lost forever, or be destroyed.

As for the still functioning computer, it is still running a program that has been waking teams up, at random, for 140+ years! That's not what it was supposed to do, but that's what's been happening!

The Final Program

It's been mentioned many times now: Prime Base knew it was going to die. Personnel did everything they could, everything they could think of, to preserve the Base and the Project. But the trickiest problem they ran into was: *Who was going to wake up all of*

the field teams? It sure as hell wasn't going to be anyone at the Base!

The decision was made (and nobody liked it) to have a machine do it. That's what the Activation Computers were *for*! But instead of being fed the necessary commands by people, a program was created which caused the computer to issue the command on its own.

Creation of that program was the most devilish, as well as the most important, effort that was undertaken during the final days. The program had to:

1. Activate all of the Morrow Teams and facilities.
2. Do so only after a pre-determined period of time elapsed.

The programmers who literally died trying to get this job done needed to ensure that the program could wait the necessary period of time, then "go active", enabling the activation computer to actually raise teams as opposed to operating in a near dormant stand-by mode, send the necessary orders to all teams and facilities, transmit a short explanation of the situation (i.e. that Prime Base was dead and everybody was on their own), then close down and wait for something else to happen.

That would have been a hard enough problem which would tax the abilities of the computer section at any time, but by the time the program was begun, things were desperate. There was so little time to get the job done in. At most they had a few days. Just entering the activation codes for all of the teams in the field would normally have required weeks, for the entry and checking necessary to ensure no team had been left out.

But that's just what the programmers *couldn't* do! The program they eventually worked up could not contain team designations or locations, if the Base were taken by hostiles, such a program could be reverse engineered to reveal the locations of teams.

The program had to be a glorified random number/letter generator. When it went into action, it would have to toss numbers and letters in the air until it got lucky. In practice, since there was no way the program would (or could) know if it "got lucky", it would have to send activation signals for every *possible* activation code. The program would also have to do this very quickly.

It was a monumental job. There was not enough time to do it. The people working on it would have screamed in anguish had they had the luxury of time to do so.

Why? Because the programmers knew, and explained this to anybody who listened, that they could not guarantee that any of it would work. It was not that there was no time to debug it (though there wasn't), nor even that there was no time to run simulations or construct models. It was that there was *absolutely no way to test the program*. The only way to know if the program really worked was to try it: and that was what they couldn't do.

The programmers went ahead with it of course, there really wasn't anything else to do. They were as careful as they could be, and as time allowed. They produced a program, made a copy (so both computers would have one), put it in the machines and left them to the emergency power grid. Some of them crossed their fingers, others prayed, but none of them felt good about it. And shortly they were dead.

The Final Program was the delayed action measure taken to activate the teams and see to it that the Project did not fail. Stripped of all technical jargon, the Final Program had to:

1. Lie dormant within the machines, which were operating at the lowest possible level of activity on the automatic mode of the EPG.
2. At intervals randomly determined, the program was to "check the time" by reading the computer's internal clock.
3. The first time this was done *after* five years had passed, the program was to go fully active and being the run of all the possible activation codes and send them.
4. Having completed this, the program was to transmit the last message of Prime Base, then close itself and the machines down.

It didn't work.

There was, of course, a bug in the program. What actually happened was this: The first part of the program worked well enough. It "checked the clock" from time to time until five years had elapsed. But instead of then sending all possible activation codes, it sent one and then closed down again. At a later, randomly picked time, it "came up" again and sent one more activation code.

It did this for 140+ years. It will still be doing it when the Team arrives. It averages one transmission a day, but note that this is an average. Sometimes the program does not come up for weeks, other times it will send a dozen or so transmissions all in the same day. The intervals are random.

There were and are many millions of possible activation codes. Even in the time that the program has been running, it has only sent out about 40,000 codes. Since most of these codes have no effect, it has not even activated 10% of the Project's assets.

The program will continue to run until somebody turns off the machine or yanks the program. But to do that, somebody will have to know that the machine is on. This is not obvious. There are no flashing lights, no disembodied mechanical voices. In fact, the only way that anybody is likely to realize that one of the computers is running is to be there when the program comes up and sends a transmission. When that happens, a single light comes on and a tape runs for about ten seconds. The only noise is a click - whiiiiirr - click which cannot be heard from more than 50 feet away.

The good news, such as it is, is that the program has kept track of what codes it has tried. If this list is compared with the tapes of actual team locations/designations, a fairly complete picture will begin to form concerning what teams are still frozen and which are (or were) active.

Operations Support

All of the Ops Support rooms are locked and require the proper combination for entry. Inside, all of the rooms are currently on the Conditional setting of the EPG but will advance to the command setting if the proper switches are thrown and the prayers are said

Different as all of the departments were, all were cleaned up for the deception. Maps that had been on walls were taken down, anything that might be used for purposes of identification was removed from prominence. Very little was destroyed since most of the stuff was necessary to making the place run and would come in awfully handy when the Project reclaimed the Base.

So the various departments are much as they were described previously, but the deception campaign has left them with a very sterile feel to them.

OPS CYLINDER, LEVEL 4: BRANCH OPERATIONS

"Branch" refers to subdivisions, usually based on jobs, within the Project. MARS, Recon and Science are all "branches" of the Project. There are eight offices on this Level, each devoted to and staffed by members of a particular branch.

These offices are laid out like slices of a pie. All are reached via the access corridor surrounding the Trans Core. The outer wall of each office is given over to computer banks for the branch and its mission. Inside, all of the offices are identical, only the functions of each were different.

Communications from this Level, other than the mundane "in house" sort, were routed through MISCOMCEN on the level above. In fact, this entire Level and its activities were little more than an annex of the Operations area on Level 3.

There are eight offices on this Level. The purpose of 7 of these can be ascertained after a few minutes investigation if the investigator is familiar with the Project or is a Project member.

The sections are:

1. Recon
2. Construction

3. Medical
4. Science
5. Logistics
6. Aviation
7. MARS

The eighth office, while fully furnished, shows no sign of ever having been used. There is not so much as a paper in any of the desk drawers. The computer has nothing other than standard operating system programs in it. No data, no files, no special applications. It is for all intents and purposes, *empty*.

P.D. Note: This office was to be the home of Phoenix Operations, if and when the team was activated.

PLAY OF THE GAME: OPS LEVEL 4, BRANCH OPERATIONS

Like Mission Operations on the level above, the Branch Operations Level was deemed vital to the Project, so all of it was included on the EPG. All areas (except the corridor around the Trans Core) are on Conditional Power, but will rise to Command if so ordered. An exception to this is the 8th, empty area that was devoted to Phoenix Operations. This area is not on the EPG at all but it could be connected if the proper arrangements were made in the Power Center.

All of the doors are locked electronically, again with the exception of the Phoenix office. That office, never having been used, was not locked.

This Level is like the one above in another way. Since none of the Field Teams were ever activated by the Base, neither of the Levels were ever much used. They were used to some extent, for planning and organizational work, but this was in the nature of warm-up exercises for getting ready for real work. So when found by the Team, this Level and the one above it will still have a feeling of being brand new about them. There are minimal signs of wear. Desk drawers still stick because they are so "new", desk keys are still in packets in the central drawers of the desk, etc., etc.

The Branch Offices were "sanitized" as carefully as the rest of the Base. There is nothing to tell one from another at a glance except for the Phoenix office which is obvious because it is so *completely* new.

The computers for each Branch still hold the information they were loaded with. The computers, like everything else, are not on but can be activated by use of the proper controls. However, the computers were "locked up" too. While they can be turned on, they will not function in any way until the control program and password have been entered. Passwords were assigned by each Branch for their own section of the computer so finding or stumbling on one is not likely to be of help with any of the others.

A couple of words should be said about the Branch computers. As has been implied, they are not really separate machines in each office, but rather a part of one networked system which stretches all the way around the inside of the Level. Each of the sub-parts, those "chunks" which are found in the eight offices, can (and usually did) operate independently of all of the others.

The network connecting these machines gave them rapid communications between the nodes of the network and the ready transfer of data from one section to another. With all of the sections up and running, and with the proper commands and permissions, all of the nodes of the network shared all of the data in all of the branches. This was a lot of help to Branch Operations.

This system was intentionally broken in the final days. Now, each of the nodes of the network will have to be brought up individually. These nodes will then operate, but only separately.

All of the equipment on this Level, all of the jobs of the people who worked here, were devoted to a single purpose: receiving electronic communications from outside of the Base. In general, there were two kinds of signals that this center dealt with. The first was incoming Morrow commo, Project calls directed at the Base. Such signals were to receive priority for recording, routing and relay. The second class was literally everything else in the ether.

This second function was the one that saw the most activity during the days of the War and the period that followed. Operators collected as much data as they could from both civil and governmental sources. The information thus gained was instrumental in figuring out what was going on outside. It was understood that as time passed, there would be less and less such traffic to monitor. At the same time, Morrow traffic, likely to be minimal in the early days, would start to pick up as time went by.

Given that the two "missions" of the area were separated by some time, only one center was built to handle both. The design of the Center reflects both of the purposes for which it was built.

The Center is laid out in rings spreading out from the Trans Core. The more traffic an area was expected to have, the more space it was given in the center.

1. CW

"CW" stands for Continuous Wave communications. The most common form of this is traffic sent via AM and FM transmitters in Morse code. Such transmissions are generally unknown to the public who usually think that Morse code messages are obsolete. In fact, a great deal of military traffic, as well as marine ship-to-shore and other civil communication was still sent via morse even in the 1970s and 80s. This was because of the unique usefulness of CW. While it could not carry "voice", CW was the strongest wave form that a normal radio can send. The wave form also remains strong and coherent over great distances while requiring no more power (and sometimes less) than other "normal" transmissions. CW, carrying Morse, was also best able to "punch through" poor radio conditions and to some extent, through intentional jamming.

Therefore, since CW was cheap, long range and reliable, it continued to be used for a great deal of "professional" radio traffic. The CW area of the Center was intended to monitor all of the frequencies that it could, intercepting and recording the Morse traffic of the world. 16 or more operators could man the center CW section at any given time searching for, and either copying or recording any traffic found.

This section was expected to be used the most during the first days of the War, after which the volume of traffic it dealt with would fall off. This was the same for many sections. However it was planned that the CW section would never be abandoned. Not only might a desperate Morrow team someday have to send a CW message, just as important was the likelihood of receiving civil traffic again via CW. CW is the oldest, easiest and simplest form of radio traffic. If anybody was going to "recover" to the point where they could send radio messages again, their first attempts were likely to be through the medium of CW.

2. Crypto

"Crypto" means cryptography or coding. The Crypto section existed to decode incoming coded transmissions.

The section had no radio gear, nor receivers of its own. Transmissions were brought to them after they had been recorded and transcribed in other sections. 16 to 20 cryptographers could work here at any given time. The room was full of desks for these operators and what may have been the finest non-military or government library of cryptography in the world. Along with one of the best supercomputers for the complex mathematical calculations often involved in modern cryptography.

Most of what the section worked on came from the US government and military though there were bits and pieces from other nations, particularly the USSR. There was, also some encoded traffic from businesses and the like. None of the decoded traffic was kept here. Like all of the other sections, Crypto sent its stuff on to analysis. From there, however, most of the goods received from Crypto were kept and placed on permanent record at the Electronic Archives. Some of it makes fascinating reading.

3. Microwave (MW)

Having nothing to do with microwave ovens, microwave commo was widespread in the world before the War. It might have been the single highest volume means of moving non-entertainment communications. Microwave is highly directional as commo moves over great distances in a very narrow beam. Just putting up an antenna doesn't get you MW unless you get lucky.

Because of this, the Project had "tapped" a large number of NW reception and relay stations in all parts of the country and in many parts of the world. Through their own clandestine relays the Project routed this traffic to Prime Base and the MW section.

It was never thought that the MW section would be in operation for long. MW equipment is expensive, complex and fragile so it would not last through the War. But so much volume was moved and in so short a time, that some effort had to be made to intercept and record as much information as could be gathered before the end. This was the job of the MW section.

The room is the same size, and could handle about as many operators, as the CW and Crypto sections, but in fact, there was not much provision made for human operators. Incoming MW traffic is meaningless to the human ear until it has been rendered back into its original components. Therefore, the MW section was mostly automated. First, the incoming traffic was "caught" and recorded. As time allowed, the MW was then translated back into its original form, also automatically. Finally, the traffic was sorted, this time by operators and the result sent off to analysis.

4. Satellite

The SAT section is very nearly identical to the MW section in layout and appearance, only the equipment is different. This is because the jobs that each would do were very similar in nature.

5. Media

Up to 40 operators could man this large section, the purpose of which was to monitor "media" transmissions. In this usage, "media" refers to the established electronic and informational broadcasts of civilian corporations. This includes television, radio, news wire services, etc.

Operators monitored as many channels and broadcasts as they could, activating automatic recording equipment whenever they ran across something of importance (meaning information on the events or effects of the War). This information, coming as it often did from the actual scene of events, would be useful in figuring out just what had happened and what the Post-War situation was likely to be.

This section was set up to work as fast as it could since shortly after the War began there would be little traffic coming. As much as possible had to be grabbed at once since there would be no replays.

6. Voice

The voice section was the largest area of the Center. During the War and immediately following it, this section would be responsible for monitoring as much as it could of "normal" voice-type radio traffic. Like the other sections, important bits of this were to be copied/recorded.

After the War and during the time when Morrow teams became active, the voice section would be the outfit that received all of the initial contacts from teams in the field. Such transmissions would all be recorded as a matter of course.

To meet both of these missions, the section maintained equipment and space for about 100 operators. Radio receivers of many typos and capabilities were provided for the initial mission, but these would later be replaced by Morrow Base sets (Morrow sets would be needed to unscramble the incoming traffic). A few

of the other sets would also be kept in operation and monitored, just in case some unknown survivor came on the air.

7. Recording

Much has been made of recording traffic in the previous sections but where was all of the equipment for this recording? Both MW and SAT needed and had their own, but the rest of it is here, the recording section for the Center. When other sections designated that some piece of traffic was to be recorded, electronic connections relayed the traffic here and the recording process began automatically.

Most of the room is filled with recording and duplication equipment. About a dozen human operators were present, in part to handle unusual situations, but mostly to service the equipment and take care of problems.

About a quarter of the room is given over to recording equipment used by Analysis. This part of the section's mission required good quality control and a capability for dubbing, splicing, narrating and other technical matters. Such work fell under the heading of producing official records. When these were done, they were packed off to the archives on Level 13.

8. Traffic Analysis

Usually known just as "Analysis", this was the immediate destination for all important incoming traffic. Here all of the bits and pieces collected by the various sections were blended together to form a whole and hopefully coherent picture of what was going on outside.

The synthesis made here had two immediate destinations: Mission Operations and the Holo Map Center. Eventually the information was also passed on to the recording section. The Analysis Director was responsible to the Mission Director. He had to get fresh information "upstairs" as quickly as possible, but at the same time, he had to be at least somewhat confident that what he was passing along really was important and/or accurate. The Analysis Section and its Director were, therefore, in defacto command of the Intercept Center.

Notes On The Commo Intercept Center

This center was more than just a mission support facility. During the days leading up to and throughout the course of the War and its aftermath, this Center was Prime Base's main window on the world. Most of what the Project would know about the War and the world was collected by the Center. The decisions that would be made about team activation and deployment, about where and when resources would be used, about the entire conduct of rebuilding, were all to be based in large part on the information collected by the Center.

In a very real sense, the history of the War and the world were to be determined by the operation of the Commo intercept Center.

PLAY OF THE GAME: OPS LEVEL 5, COMMO INTERCEPT CENTER

The Intercept Level was not like the two above it. It was used extensively, one might say furiously, and it shows. The arrangements made for this Level with regard to the EPG were the same as for the two Levels above it. All of the doors on this Level (with the exception of the latrines, of course) have electronic locks. Note however that the only doors that will be locked when the Team arrives are those that give access to the Trans Core (three doors in all). All of the interior doors (i.e., those that gave access to places within the Intercept Center, while equipped with locks, are not locked.

As noted at the beginning of the preceeding paragraph, there is no possibility of mistaking this center as never having been used, or even used lightly. The Intercept facility was one of those used most heavily during and after the War. As time passed, it was used less often since there came to be less traffic. But it was always manned, and remained in use for commo coming in from Pahute Place, the "colony" established to the south of the Base.

This may be an interesting area to the Team. *If* they turn on some of the receivers, *if* they happen to be set to a "lucky" frequency, and *if* some Morrow Team happens to try and raise

Prime Base *while* the Team members are present, then the Team will hear a call.

However, even if they do get this lucky, they will not be able to respond since this is an intercept facility: there are no transmitters here. They will be able to record the transmission if they have activated that area of the Level and have figured out how to use the recorders. The good news is, so far as it goes, that the personnel of the Base had already switched most of the facility over to Morrow capable receivers so there won't be any trouble with scrambling.

There are a lot of things like this that *might* happen if the Team gets the gear up and running. Much of it, like the Satellite Intercept, might pick up Morrow traffic (see PF-06, Operation Lonestar). Other equipment might receive transmissions from Damocles (see PF-02, Damocles). It all depends on what the Team turns on, whether or not they can figure the stuff out, and what the PD wants to turn loose in his game.

Of real importance to the Team and the game might be all of the tapes and transcriptions that were made here during and after the War. These may be the only recordings of the events which took place. But because of the limited space on this Level, they were not kept here.

OPS CYLINDER, LEVEL 6: COMMUNICATIONS

The Intercept Center on Level 5 above was the point where most commo entered the Base. The Communications Center (COMCEN) here was the operations center where commo would leave the Base going out to the teams.

As such, this Center was only lightly manned before and during the War. It was not to be used to any extent until field teams became operational - 3 to 5 years after the War. At that time, the operation of this Center would be crucial and non-stop.

Many of the functions of this Level are very similar to that of Intercept. The greatest difference being that here, the emphasis was on transmission. With that in mind, the descriptions of some of the sections on this Level will be brief as the sections, physically, so closely resemble those in Intercept.

1. CW

Like the CW section in Intercept, this section operates only on the CW band. The purpose of the section was to use Morse/CW to communicate with teams or others, as directed by Communications Operations (COMOPS). This would be done only when necessary, as operating in Morse is both a specialty that few people are qualified in and a cumbersome, time consuming process.

2. Microwave

The MW section was not likely to operate at all until several years after the War at a time when outside MW equipment and functions could be reestablished. Some Morrow facilities had MW capability, but they would not be used unless the Directors felt that there was an unusual need for secure communications.

3. Satellite

"SATCOM", like MW, was not likely to be used until some time after the War. It was felt unlikely that many or any of the pre-War comsats would still be usable by this time. It would also take some time to render the Morrow comsat operational. After that, it would take even more time to inform field teams that there was such a system (information that had been kept from most people for security reasons), and provide instruction on how to use it.

4. Voice

The voice section was the largest in COMCEN because most commo with field teams would be conducted via this medium. Like the setup at Intercept, voice here could accomodate 100 operators.

Procedure called for routine reports and other information being sent in by field teams, commo that needed no reply or conversation, to be handled by Intercept. Cases that demanded a reply or conversation were to be handed off (fast) to the voice section

of COMCEN. The voice section was also the origin for general orders or other communications going out to all of the teams.

5. Communications Operations

Or "COMOPS" as it was more commonly known, was the control point for all outgoing communications. This section was responsible for all of the aspects of running COMCEN. The director took his orders directly from the Mission Director in Mission Operations.

Some General Notes On Both Intercept and COMCEN

It is important to understand that while both Centers have a lot of radio and other commo equipment "lying around", a lot of the equipment essential to both was located some distance away. This is the case for both the power source for all of this gear, and the antennas that make electronic communications possible. Both of these considerations will be dealt with in sections of their own.

Both of the centers made extensive use of computers and these have not been mentioned. The comms computers were highly specialized systems which were designed to keep as much of the simple routing problems from Base personnel. Every effort was made to give the Comms personnel the tools they needed to make critical decisions regarding what was important and needed immediate attention as opposed to routine transmissions.

To do this, a highly sophisticated digital recording and cataloging system was developed which would allow the Comms Director to review transmission type, location, topic and details.

This filing system was keyed phonetically and topically but could also be accessed alphabetically. A transcription of a conversation could be printed at the Comms Director's office or at one of the laser printers at the Analysis Center.

All transmissions were stored on 18" diameter laser discs. These were unique to the Project and unlike those commercially available before the War, they were fully read-write capable rather than the usual "write once only" laser discs.

Also available for the Comms Director and at the Analysis center were stress detection equipment to help evaluate (as much as possible), the state of mind of the sender.

But the judicious use of computer made possible the operation of both centers with so little in the way of permanent staff. There was even a communications mainframe computer that serviced both Centers located on Level 7.

Of course, most of the sections of the Centers were only lightly manned most of the time. indeed, there were not enough Comms Personnel to man all of the positions of both at the same time. Positions were manned only when necessary.

The communications staff members were generally qualified at more than one job, in fact, four or five skills per person was common. They were selected for these skills and additional training provided more wherever possible. This also had the effect of minimizing confusion as traffic shifted between sections: people usually had more a good idea of what was going on and what would be needed in the way of help and support. Only the Pentagon had as efficient a system of operators.

While many posts, even most posts, were only manned some of the time, a few were manned 24 hours a day, 365 days a year. In Intercept, these included Voice and Traffic Analysis, in COMCEN it was Voice and Operations.

PLAY OF THE GAME: OPS LEVEL 6, COMMUNICATIONS

For the purpose of playing the game, this level is not much different than the one above it. The arrangements of the EPG and the use of locks are identical.

Most of the comments made for Level 5 above also apply to ComCen, save for obvious differences in the function of each. Also different is the amount of use this Level received, there wasn't nearly as much here.

This area remains the only facility for communicating outside of the Base, Positions here must be manned to do this, or alternate transmitting facilities set up. Also essential is the manning of the Level above: for receiving return commo. in fact, in order to allow a conversation to take place, a radioman is needed in both

areas, or the commo mainframe computer must be "up" and switching (done automatically) from one level to the other.

Even though all of the equipment is available and operational, quite a bit needs to be done before the Base is able to communicate as intended.

OPS CYLINDER: LEVEL 7: ADMINISTRATION

Not all of the facilities on Level 7 have to do with admin; in fact, very few do. But this Level was home to a variety of facilities and services that were central to the functioning of the Base and these, with administration, made the name an apt one.

The administration aspect applies to the Base and not to the Project as a whole. If any one place had to be pointed to as the HQ of the Project, it would have to be the Mission Operations Center on Level 3 of this Cylinder. Here on Level 7 very little applies to the mission of the Project

Level 7 is also a "mid" level, one of those that gives access to the other two cylinders. However, this level also allows access to a tunnel that does not go to the other Cylinders but heads north instead. That tunnel and what it leads to will be described in another portion of the module. That area is not a part of the Cylinder nor part of the normal working areas of the Base.

A. PRIME BASE INTERNAL TELEPHONE EXCHANGE

A separate section of the text says more than this description about the phone commo within the Base. What follows is not a repeat of that but a description of the area from which the phone system was controlled. It was often referred to as "Ma Morrow".

A1. Operations and Switching

Most of the Base's internal commo was automated, as is most modern phone commo in the U.S. today. But there still has to be a point from which the automation can be monitored, a place from which people can exercise control when necessary.

This room served all of those purposes. A watchstander was posted here 24 hours a day. Also present was a telephone operator who, since they were seldom needed to field calls, also served as a relief watch stander. The person on watch was there to troubleshoot any problem that might come up, or, if such was beyond what he could do quickly, switch the system to manual controls. It was without a doubt the most boring job in the Base, The operator was present to do what operators do: field silly calls that the machines can't handle.

Aside from the work stations of these two people, there are three more operator's positions. These were included for times of emergency or when there was unusual demand. In practice, neither would take place unless the system went over to manual control.

A2. Equipment

Much has been made of the automatic phone system of the Base. This room is where the equipment that made that system possible was kept. This is not the home of the computer but the location of all supporting equipment. Mundane things such as electronic cable housings, fuses, and power linkages are kept here along with specialized tools and test equipment.

A3. Communications/Interface Computer

When Prime Base was conceived, one of the biggest problems the Morrow planners had was the problem of command and control of communications and records. Given enough people and time the problem was not too difficult but that was exactly what they did not have.

There was not enough room in Prime Base for the people necessary to handle simultaneous communication and record archiving for the entire North American continent. Roughly speaking they had to plan to handle as much commo traffic as NORAD with a team of no more than two dozen or so people. They never arrived at a satisfactory solution to this problem but what they tried to do was to create an interlinked computer system

which would allow an operator to send/receive, archive and direct traffic to the right people as easily as possible,

In this they did a magnificent job of planning and designing the system. The problem was that the hardware wasn't up to it. If the system had actually had to support the planned load it would have been slow, balky and difficult. They simply did not have the technology to do the job. They knew it but, having no other choice, they did their best and left it up to the Base Director to do what he could to solve the problem before it became a nuisance.

In this they were lucky. The Base Director was no technical genius, at least not when it came to computers. But he had such a genius working for him, a young man who had come to Prime Base as a child and who had grown into a bright young man who needed something to keep him out of trouble. The Director assigned him the problem and gave him unlimited authority to use the labs as needed to solve the problem. And he did.

He solved it by creating the first light valve computer - a computer that used laser light to store and send information instead of electricity. It was blindingly fast, had none of the usual problems with heat dissipation and was amazingly compact for its power.

He created a whole new set of "chips" that used light instead of electricity and then invented manufacturing techniques that were within the capabilities of the Base. The power consumption for the machine was so ridiculously low that a kitchen toaster used more power. This vast machine not only implemented the planned communications system, but also allowed all of the computers within Prime Base to be interlinked.

But if the machine was as brilliant as it was unconventional, the software which ran it was even more startling. He singlehandedly designed and implemented a system which learned from experience and was self-correcting. The machine actually adjusted its actions to the operators using it so that as it became "familiar" with an operator it would "anticipate" what that operator was going to do. Before he ever brought it online, he had the machine monitor traffic and make predictions of what would happen. By the time he eased it into the system, it "knew" the styles of all of the operators and would allocate resources before they asked for them.

The machine is in the center of the northwest wall of the room. It looks like an ordinary computer until you open it up. The computer boards inside the box are made of iridescent plastic and have very fine ghosts of lines which carry the light signals from chip to chip. Surrounding the light computer is a group of machines whose only purpose is to transform bursts of light into electrical signals to send to regular electrical equipment. The light computer itself is only about 1 1/2 x 1 x 1 meters and is almost lost in the cluster of other machines.

Directly to the right of the light computer is the master console which is connected directly to it. It has no special properties, it simply is the only direct hookup to the machine. The light computer can be accessed and programmed here, or from any other computer in Prime Base, this just happens to be the only direct link-up.

B. POST TWO

On Level 1 of this Cylinder, we had Post One: the primary entrance and exit guardpost of the Base. This is Post Two, which serves a similar function. This duty post guards the end of the tunnel which leads out of the Base to the north.

Post Two is much smaller than Post One because its mission, while similar, was different. The door it guarded was hardly ever open and the areas the tunnel leads to were not in common use. Nor was it likely that intruders would be entering, or attempting to enter, the Base through it. As a result, Post Two was only manned when the door that it guarded was in regular use, but then it was manned 24 hours a day.

Post Two had no "civil" functions either. It was not a "Base Police Station". It would have made more sense to locate such

a station here as it was more centrally situated. But since Post One had to be manned all the time, and Post Two did not, the station went to Post One.

B1. Watchroom

This is a room with an armored glass view, very like its counterpart in Post One. Its function is fundamentally the same too. Its most important purpose is to control the huge, armored door that blocks the end of the tunnel. The controls located here are the only means (other than *enormous* brute force or explosives) of opening or closing that door.

The watchroom is also equipped with video displays that, being fed by cameras on the far side of the door, show the interior of the tunnel. Unlike the Post One facility, Post Two's watchroom has no automated weapon's systems. Instead, firing ports are located in the wall below the armored glass.

B2. Ready Room

For those periods of time when the Post was manned, there needed to be a place for off duty personnel to remain when on call. The ready room serves this purpose.

There is not much of interest to it. There are four bunks, a table, some chairs, a magazine rack and a bookcase. The door leading to the corridor is nearly the twin of the one at Post One. It is armored, has a glass "spy hole", and is locked. But this door can be opened from the outside: with the correct combination and the key. If there are personnel inside however, they can override the lock control to prevent it being opened from the outside.

B3. Latrine

This is a small latrine, with shower and washing/shaving facilities for the use of people on duty in Post Two.

B4. Arms Room

In form and structure, this arms room is the twin of the one at Post One. It is smaller, so there isn't as much room in this one. When it was fully stocked, it contained the same assortment of weapons, ammo and equipment as the facility at Post One did, but only half of the quantities (or less).

B5. Machine Room

This is not properly a part of Post Two. This room is where the machinery for opening and closing the armored door of the tunnel is located. There is a crawlway door set low in the wall of the corridor to let maintenance crews in and out. This door locks with a key.

C. BASE VIDEO COMPLEX

Known as MTV (Morrow Television), this area served as the Base's electronic entertainment source. It was also the "official broadcast network": the public announcement system.

Many areas of Prime Base were equipped with video receptors (televisions), including the living quarters, the hospital, ready rooms, etc. All of the residences of the Base also enjoyed VCRs, laser disk players and other electronic diversions. Most areas had hookups for "radio" (sound transmission without video).

None of this equipment was of the usual type. None of it was capable of picking up actual radio or television signals from "outside". All of it was built or modified so as to operate on the closed circuit Base system which originated here.

Very little "programming" actually took place here, there was more demand for people and resources elsewhere. Such programming as did originate in the Base's studios was either amateur/hobby type efforts of people spending their free time to run the radio and TV system, or the rare official announcement from the Base Director.

As a result, most of the programs were canned in one way or another. As long as there was a world outside, Morrow antennas picked up regular TV and radio broadcasts, snatching them right off of satellites where possible. These were then fed to this area where they were translated into cable transmissions and piped off to the rest of the Base. So until the War, the Base had normal television and radio.

The War ended this. As the normal networks disappeared one by one, the MTV network, as planned, shifted to a single station

operation. This was where the Base's homegrown amateur producers took over for part of every day, presenting mostly talk shows and educational programs.

The rest of the time, the station showed movies, old TV reruns, and locally produced news. The Base had prepared for this before the War and had literally millions of hours of old "actual" television on file that it could show.

The same was true of radio. Canned broadcasts, especially of concerts, were played as a matter of course. In fact, Base Publishing (see the Support Cylinder) printed weekly video and radio guides once the Base reverted to all internal programming.

C1. Lobby

It was rare, but people occasionally had to come to the MTV for one reason or another. When they did, this was where they waited until somebody could see them. The other function of the room was as the desk for the video entertainment library. People came here to pick up or turn in materials. Other than that, the lobby is typical of any other in the Base. It was often decorated with movie posters from the library, though.

C2. Radio Station

This room is the source of all of the Base's home grown radio programming. Most of the equipment here is automated. When canned programming was all that was scheduled, a human operator needed to come in only once every 24 hours to change tapes, stack records and check on the computer controlled system in general. Live radio interviews and news were not conducted from here: those were done on the sound stage. The transmission of such programming was done here, as this was a control room. While small and of limited capabilities, this was a very versatile and practical facility.

C3. Master/Equipment Room

When studio mixing was required, when video tape needed to be spliced and rearranged, in fact, when any technical rearrangement or fine tuning was needed, this is where it had to be done. This is the mastering area of the video and, to a lesser extent, radio stations of the Base.

Also located here is the actual hardware that gets the video and radio out to the rest of the Base.

C4. Control Room

This room was the nerve center of the complex. From here, all incoming and outgoing video and radio could be controlled. This was also the counterpart of the radio station for the transmission of canned TV programming. It was where the programming was set up to be run by the automated system. The last function of this busy room was as the control room for the Base's solitary sound stage. The glass wall of the room looks in on that stage.

C5. Sound Stage

This is the Base's only video and radio studio. It was used primarily by the video people and only occasionally for the radio station. Only one corner of it is actually a studio/stage, the rest of it is empty space for cameras and booms to move in, and storage for backdrops, sets and other props. It is something of a rat's nest.

C6. Electronic Entertainment Library (EEL)

The library had two functions. The first was to provide recordings of whatever type to the TV and radio stations; mostly movies, records (or their equivalent), concerts, etc. The other was to do the same thing for the personnel of the Base.

To this end the library held a marvelous and eclectic selection of electronic goodies. All of the best movies, all of the greatest recordings, had representatives here. There were more than twice as many musical, sound only, recordings than videotapes.

These were available to the personnel of the Base for use in their homes and copying on blank media purchased through the Base's "retail store". Personnel had only to phone in their requests and if what they wanted was in at the moment, they were given a time to come and pick it up (this avoided crowds and lines

in the lobby). There was no charge for the service, but no more tapes could be drawn until the one taken was returned. The system worked very well.

Notes On The Video Complex

This was a small set up as such things go. It's most important single area was probably the EEL. Certainly it was the most used. The rest of the section was run on a "cooperative" basis by amateur enthusiasts. The quality of what was produced was, to put it mildly, highly variable.

But there was no competition from other networks. And the biggest service the complex provided was not concerned with entertainment or the presentation of information: it was emotional and psychological. The radio and TV system helped to preserve the illusion of normalcy so vital to the continued operation of the Base. This was why it was included in the Base.

D. THE FIRE DEPARTMENT

Prime Base was unusually vulnerable to fire. A fire within the Base would prove more lethal than in nearly any other environment. People could not very well "run outside" to escape it. Nor were there any natural barriers to prevent the spread of fire, no open spaces like lawns or streets that separate buildings, no streams or rivers. And a fire in the Base would not have unlimited amounts of air to draw on: it would rapidly consume the air that people needed to breath.

All of this was well understood by the designers of the Base. They made provision to limit the likelihood of fire as much as possible, then designed in extensive means of fighting fires that broke out anyway. The materials used in the basic construction of the Base were as flame resistant as could be found or made; including items which were normally flammable such as carpets and paint.

But anything will burn under the right conditions. So the Base had one of the best automatic sprinklyer systems ever devised. Backing this up were firehoses and numerous fire extinguishers on every level. And, finally, there was the fire fighting facility on this level.

The "Fire Department" was small and equipped in an unorthodox fashion. It was manned 24 hours a day by 2 to 4 people whose main job was not so much to fight fires as to give the alarm and then make sure necessary equipment reached the scene of the fire. Fire fighting in the Base was necessarily both voluntary and an "all hands" affair. When fire broke out Base personnel headed for it, relying on the "firemen" on duty here to bring special equipment.

D1. Equipment Stores

The special firefighting equipment was kept here. This large area was mostly open floorspace with firefighting gear arranged along the walls. The most interesting equipment here consists of three of the Base's trollies adapted to the firefighting role. Two were always kept loaded and ready to roll, while the third was kept as a spare to serve when one of the others was down for maintenance. These vehicles were intended to get as close to the fire as possible (depending on how much space was available in the afflicted part of the Base). They were to move to the fire via tunnel to the Cylinder where the fire was, then by freight elevator to the correct Level.

Each of the trollies carried an assortment of gear including extra hoses and fittings, oxygen tanks and emergency gear, axes and other tools, etc, etc. Ready to hand was specialized gear that could be thrown aboard on short notice like stocks of bicarbonate of soda and other materials for fighting particular types of fire (a serious consideration in many parts of the Base).

The floor of the area was kept scrupulously clean and free of all clutter. Note that this area does not have doors separating it from the corridor. The fire department did not need them and opening them would slow things down.

D2. Ready Room

This was the HQ of the fire fighting system. It is both a command station and comfortable lounge. The command portion consists of a watch console linked to the Base's alarm system. When heat sensors detected unacceptable temperatures, or when someone phoned in an alarm, or the general Base alarm was activated (the common "Break Glass and Pull" type), this console reported it. An exhaustive map of the Base was etched on plexiglass and mounted on the wall and ceiling above the console. When an alarm was tripped, lights below the glass came on at the point where the alarm came from or where fire had been detected.

Part of the console was also a "panic button" that not only delivered a general alarm to the Base, it immediately overrode all internal phone communications and rang every phone in the Base at once. The watch stander on duty could then tell everyone who picked up a phone what the situation was and where the fire was located. This system also interrupted all normal broadcasting on the Base's TV and radio channels.

D3. Bunk Room

This was a sleeping and resting area for the Fire Station's on duty personnel. It contains four bunks, and shelves and closets for clothes and gear.

D4. Storage Area

Not all of the Station's equipment was kept in the area of D1. That place was intended for things that might be needed at once. Items that did not require ready availability but were nevertheless essential to the Station were kept here. Such stores consist mostly of spare parts, stocks of specialized firefighting compounds and specialized support equipment (like charging apparatus for the Base's fire extinguishers).

E. BASE ADMINISTRATION

To put it at its simplest, this was the HQ of the Base. It was not the HQ of the Morrow Project. It might be helpful to think of this area as a sort of "city hall".

It was not usually very busy and it had a permanent staff of only three people: the Base Director, a secretary/assistant and a combination runner/messenger/troubleshooter/gopher. Other people could be conscripted to help here but it was rarely necessary.

Like any decent command hierarchy, Prime Base's system of departmental Directors, and the departments themselves, were organized to be as self-sufficient as possible, thus leaving the top man free to do his most important job. That job was not to ride herd on his subordinates or to do their jobs for them! His mission was to troubleshoot serious problems, coordinate the activities of the separate departments and to make plans and set policy.

The Base Director did not need a platoon of flunkies or a level of offices to do this. He needed a few rooms, a couple of phones, two assistants and capable Directors; and that is exactly what he had.

E1. Lobby

There really wasn't a need for this room, not for the Director to do his job. It was included for psychological reasons: people like to see a lobby or other public place that is directly associated with the "Bossman's" office. No "mayor" was ever more accessible to his "constituency" than was the Director of Prime Base, but it made people *feel good* to see this public area. It prevented the impression that the "Boss" was unapproachable behind closed doors.

The lobby was there for those rare occasions when somebody actually did need (or thought he needed) to come to "city hall" to get something straightened out. It had a counter that served as an information desk and telephone answering service and most importantly, as a buffer to keep people out of the Director's hair (unless they had real business or a real problem). This was the normal duty post of the "gopher".

Also located in the lobby were official bulletin boards. These were mounted on the walls and served to display official messages, memoranda, current general orders or special directives. There

were hardly ever any of these, but when there were, this is where they were posted.

E2. Outer Office

There was not much to this area either. It contained desks for the Director's two staffers, a filing cabinet, phones, computer terminals, a coffee maker and a large conference table with chairs. One corner held a variety of special presentation type equipment such as a small projector, blackboard, etc.

While the Director's secretary/assistant worked here as a matter of course, the main function of the room was to serve as a conference facility for the Director. Regular meetings of Departmental Directors were held here. Meetings with other groups could be held here too, but were not common.

E3. Director's Office

While tastefully appointed, this room is spartan in its furnishings. There is a desk, a computer, several chairs and a phone. The Base Director did not have to impress anybody; everybody knew who he was. He did not have to awe or wine and dine visiting dignitaries since there weren't any. There was, in short, no need for a luxurious office with inconsequential brick-a-brack or other adornment. There was no need for trophies, a bar, or certificates hanging on the wall. The room is as large as it is only because the Director might have to get a half dozen or so people into it for a private meeting.

There is, however, a painting on one wall. This painting covers the entire north wall of the room, so it might be described as a mural. Nor is it immediately obvious that it is a painting as it is so well done, so lifelike, that it might at first appear to be a very large photo-poster or holographic rendering. But it is a painting, in oil on canvas. The frame looks like wall and ceiling molding for the room.

The painting is of a nuclear detonation moments after inception. The mushroom cloud stretches nearly from one wall of the office to the other. The background of the painting is dark, so dark as to be mistaken for jet black, as if the detonation depicted took place on a moonless night. The darkness tapers off toward the center of the painting where the fires of the nuclear hell are blindingly white.

Yet this painting, so accurate in its portrayal of destruction, cannot be mistaken for a photograph of a real event. For, as the column of the cloud rises, the fires and smoke which it is made up of twist and shimmer until they form within the center of the mushroom cloud the image of a phoenix rising in fiery glory from the holocaust below.

PLAY OF THE GAME: OPS LEVEL 7, ADMINISTRATION

The first thing that needs to be pointed out about this Level is that there is nothing about it to make it look like an admin center. Levels 1 and 2 look much more suitable. They have an "officey" feel.

A quick look around here will reveal that the Level had some sort of support function, perhaps for the rest of the Cylinder, perhaps for the whole Base. And this is exactly correct. What other purpose do the Telephone Exchange, Video Complex and Fire Station serve? In short, the Level does not *feel* like a command post.

The corridor system is likely to give the Team pause. If they've been around the Base much, they'll recognize that the corridor configuration here is unique. Where does that north corridor, and its door, lead?

This is likely to get the Team interested in the machine room door and Post Two. Both of these areas are sealed by armored doors requiring both combinations and keys, they will not be easy to get into. Even if they do, that northern door cannot be moved. While the machinery that lifted it is intact, and the controls that activated it are still functional, the door was not considered crucial to the mission of the Base. Its machinery is not serviced by the EPG.

The EPG serviced the corridors here, as on all levels. Command type power is provided to Post Two, the telephone system and

the fire station, Conditional power, which can be switched to Command, is on in the Base Administration area. The Video Complex was not included on the EPG.

The doors to the phone office are locked. Inside the equipment is operational and obviously concerned with communications, but hardly more informative. No more so are the contents of the next two rooms of the telephone system; there's support equipment and a computer room. Only someone familiar with pre-War telephone control centers would automatically recognize the area for what it is.

If the Team has any computer engineers and if they examine the communications/interface computer it will become quickly obvious that: 1. This is not a standard machine. It does not have any normal semiconductor chips and has no wires! Instead it has very fine fiber optic connectors and the boards are made from iridescent plastic which has ghostly fine lines connecting chips which have no pins. 2. The purpose of the machine is by no means clear as (if the team tries to trace its connections) it seems to be connected to everything, thus there is no single area which it obviously controls.

The problem will become worse the longer the Team looks at it. The hardware is so radically different that no engineer has any chance to figure out how it works. The only hope they have to understand its purpose is to unscramble the records and find the documentation left by its creator. Even then it will take most of a year of solid work to understand the concepts used.

And this doesn't even take into account the problems the software will give them. Any software engineer will be totally lost trying to pick apart the programs in the machine. Again, the only hope is to find the records left by its creator.

Remember that this can greatly affect your campaign. Remember also that this machine is no Damocles. It is not an oracle,

If a means of entry can be found, Post Two, like Post One, has an obvious "security" air to it. Since there would be no one in the area, all electronics were carefully turned off as the Base was closing down. Activation of the tunnel cameras (the switches are clearly marked) will show what lies beyond the door. But remember that the door itself is not on the EPG. It will have power again when (if) the main grid is restored.

Finally, the arms room here is empty. Its contents were removed to the Base Arsenal in Support. The door to the arms room is not only unlocked, it's ajar.

The Video Complex is much as described in the text. None of the doors to or in the area are locked. A video tape containing the final address of the Base Director lies next to the machine that broadcast it. It was removed, placed there, and forgotten.

Like the Video Complex, the Fire Station is unlocked and empty. All of its equipment is still here, but the map of the Base has had its panels removed. What's left is faceless electronic circuitry on the wall and ceiling; nothing that looks like or even suggests a map.

The alarm system is still operational since, like the electronic locks in the Base, it's passive until it uses power, so it has not burned out. It can still trigger the automatic sprinklers, but nothing will happen. The system is dry (For more on this, see the POG section concerning Plumbing.) The "panic button" will still ring all of the phones in the Base if it is pushed, and that ought to scare everyone. All of the phones ringing at once, everywhere in the Base, will be loud. They'll continue to sound, too, until somebody turns off the alarm. (The cutoff is there on the console, but will anybody look for it?)

Then there is Base Administration. There is nothing to identify it as such. Its doors are not locked. The papers that the bulletin boards once displayed were removed long ago. It might be a part of the phone system, perhaps its offices. Or it could be the coordination point for the Level's activities. But it does not look like the command center for the Base!

The only unusual things about it are the wall of the Director's office and the fact that the director is still there.

There is not another wall in the Base like this one. There is not another mural in the Base. If anyone enters this room, a light will come on, but only one. This light is of the track lighting sort and it is positioned in such a way that it will shine directly on the phoenix when it comes on. Other lights can be switched on, but this is the only one on the Conditional mode in this room.

The Director is not behind his desk. He is seated in an armchair, one of the half dozen in the room. His back and the back of the chair are toward the windows of the office. He sits facing the painting on the wall, directly opposite its center. Of course, there's nothing to identify him as the Director, or this as the Director's office.

In fact, the Director is hard to see. The armchairs in his office were comfortable and highbacked. Over the years his form has slumped some, though it still rests upright, but he cannot be seen from behind his chair. In the general darkness of the room, he might be missed even from in front of the chair. And, when the light comes on, it will not be shining on him, but on what he was looking at. The Team's eyes will likely follow the light. Who will look around? And with the light having burst out only moments before, what will they see but the outline of a chair, a chair like all of the others in the room?

The Key

The key to the Prime Base files are contained here in the Director's office though there is little to show it. The Director was faced with the problem of hiding a large collection of information in such a way that invaders could not find it, but Morrow personnel could. There were several considerations that had to be addressed:

1. Such a key had to be devised and hidden quickly. The Director (and everybody else in the Base) was dying and knew it.
2. The means through which it was hidden had to be proof against discovery (or as nearly so as possible) from people who had Project information or Morrow captives from which they might derive clues.
3. with the above in mind, the key had to be hidden thoroughly. It would be better to let things stay as they were than to let the Base fall into dangerous hands.

The Director chose to hide the key in what was both an obvious and an unusual fashion. He placed it in one of the programs on his personal computer in his office, which was obvious. But the program he chose was a "home grown" game which he had been tinkering with in his spare time for years, which was a most unusual hiding place for anything so important.

This program is in the Director's desk. It is a disk labelled Fantasy Game. If inserted in the machine (assuming the computer is on, of course), a very amateurish game will appear on the screen of the computer. It is that most typical of "interactive" computer games: a crawl through a maze of levels and chambers for no good reason.

The key lies in one of these chambers. There is a room that, when a "player" enters it, will display a phoenix rising from the flames. The phoenix will ask the player: "What is your purpose?"

There is only one response which will trigger the key. Any other answer will cause the phoenix to burst into flames and vanish, allowing the player to continue the game. The answer that will unlock the secrets of the Base is simple: a statement of the three General Orders of the Morrow Project. These need not be exactly worded, the program is sufficiently flexible (in spite of its crude appearance) to accept any reasonable facsimile. As long as the gist is correct, the system will make a variety of information available to the "player". (Malicious PDs might require the wording of the General Orders to be exact; but that's your decision.)

Activation of the key will cause a cascade of information to appear on the screen. Essentially, the information displayed will consist of short introductions followed by exact information. This information consists of locations, procedures or other means of

locating, operating and unscrambling all of the subterfuges employed to conceal vital information or equipment within the Base. This collection includes, but is not limited to:

1. A complete and accurate map of the Base. (This requires 30 screenfuls to display completely.)
2. Accurate (as far as the Director and the Base personnel knew) accounts of the disaster that befell the Base.
3. Instructions for unscrambling all of the records systems of the Base: inventory, medical, personnel, or what have you.
4. The location of crucial documents, tapes or programs like the whereabouts of the "real" Morrow installation programs for the activation computer of the Mission Operations Center.
5. The location and a brief description of the Phoenix Team (as a troubleshooting force, not as an overwatching body).
6. Combinations or other procedures for unlocking all of the doors in the Base.
7. The location of the physical keys needed to operate so many of the doors in the Base. (These are in one of the industrial strength dryers located in the laundry facility of the Life Cylinder, Level 9. They are wrapped in a pillow case. All of them are tagged with numbers, but this, the "key list" tells what those numbers mean.)

It is, in the end, up to the PD to decide how much information is hidden here. Remember the Director's computer does not hold all of the above mentioned information; it usually just tells where to find it or how to unscramble it. Note too that this is the only place in the Base where that information exists and there is no means handy for printing it out, copying it or otherwise making it available. Players may have to spend a lot of time shuttling back and forth to the area, or copying (by hand, on paper) things they want to know.

OPS CYLINDER, LEVEL 8: MORROW TECHNICAL LIBRARY/ WORLD HOLO

The entirety of Level 8 is little more than an extension of Level 9 below it. The most detailed explanation of what goes on here is therefore found in the following section for Level 9.

P.D. Note: Elevators 6 and 7 do not stop on this Level.

A. MORROW PROJECT TECHNICAL LIBRARY

The Morrow Tech library is the repository of all of the technical information the Project has regarding its own equipment. The library is located on this Level because it is smaller than the "general" technical library on the Level below. This Level, due to the shape of the Cylinders, is smaller than the Level below.

The layout of the library is absolutely identical to that of the technical library so no description of it will be given here.

Note that access to some information, like the exact tech specs and design of Morrow fusion power systems, was restricted even before the War, even to Base personnel. Access to this information was, at the time, given on the basis of "need to know" or MPID security ratings. This is still the case with regard to extracting information from the computerized system. In fact, the old "need to know" qualification can no longer be passed by the computers for there is no one to tell the computers that a given person has such need. But there are no longer any librarians to guard the physical records so it is now possible to get information from these directly. This, of course, may take no small amount of time as there are also no librarians to tell one where to find the information.

For the most part though, the Morrow tech library is an amazingly dull collection. The majority of it is made up of equipment manuals and operating instructions with occasional updates. It's just great if you want to know the correct way to lubricate an Air Scout, but not much use for anything else.

B. WORLD HOLOGRAM/MAP

This is the upper half of the corresponding room below, where a more coherent description of the purpose of the place is given. This upper level contains:

B1. Projection Room

The upper half of the spherical "room" which is the projection chamber for the map. It is, like its lower half, painted a uniform flat black, and is well soundproofed. Note that this "room" cannot be "seen" from anywhere in the area, unless some of the projecting cameras are dismounted from their housings and one looks through the holes these leave.

B2. Equipment Area

This area stretches all of the way around the "shell" that is the projection chamber for the map. This is the home of most of the specialized cameras/projectors which create the holographic image in the room below.

There is a lot of equipment in here. There is no such thing as a clear path (or a clear shot) anywhere in it. The place is a jumble of cameras/projectors, power cables, support struts, access ladders, and dollies to move the heavier pieces of gear around. There is overhead lighting, but it cannot be turned on from anywhere in the room as the controls for it are in the computer room.

B3. Supercomputer Room and Library

The square area of this chamber houses the supercomputer and support equipment for the generation of the global map. The computer in this room not only does nothing else, it cannot be made to do anything else. It is a dedicated mainframe. The long extension of the room serves as the library for this machine. The digitized maps are kept here.

Hologram Projection

The perfection of holographic technology stands out among the many technological breakthroughs made by the Morrow Project. The Project's development of the holographic techniques used here were completely independent of the government's development of holographic projections at the Damocles center (see PF-02 Damocles for details).

Ironically, it was not Morrow researchers who made the key discovery, it was a member of the Project who moonlighted doing laser displays for rock and roll shows.

As with many technological breakthroughs, there was a large dollop of serendipity involved in his discovery. Looking for a new special effect for a road show, he started experimenting with prisms and lasers driven by computerized controls. One night, due to a program error, instead of loading a datafile of control commands, a mish-mash of controls and digitally stored pictures were sent to the laser/prism combination. The result was a startling image of a seagull which appeared to "fly" across the auditorium above the heads of the fans before it vanished into a wall.

Shortly thereafter the program blew up and dumped the computer's memory. Startled, the Morrow technician shut down the system, packed it up and left without explaining anything to anybody.

Realizing he had somehow lucked into something that researchers had been entirely unable to produce, he showed up on the doorstep of his Morrow Project superior and explained what had happened. Fortunately his supervisor had the imagination to realize what this meant and he took immediate steps not only to find out what had happened, but to keep word that it had happened from getting out.

Through some very delicate manipulations, the stories in the newspapers the next day commented on the "rock and roll hallucination caused by the state of mind of the audience" and called for a return to traditional family values. Simultaneously, a famous mystic (and well known crackpot) pronounced the "miracle" a karmic projection from the audience which represented a Higher Being's call to return to the earth and the true values of the '60s. This guaranteed that no scientist or

researcher of any repute would come within a country mile of the event.

(This "call" led to the addition of a number of the members of the audience to the mystic's "following". Several months later, and several thousand dollars poorer, these new followers had, for the most part, tired of brown rice and sweaty work and had returned to their fern bars and jacuzzis.)

As for the technician, he did not disappear. Instead he continued to work for the band in question during his off-hours, being careful never to use the same equipment or programs.

The biggest change in his life was that instead of being part of a small programming group within the Project, he suddenly found himself at the center of a lot of wild-eyed Morrow scientists who were asking questions he had no good answers to. After almost a year of frenzied work during which the technician lost 20 pounds and what seemed like years of sleep, they recreated what had happened. After another year's work, they finally managed to produce reliable equipment.

The result of this was that this technician was suddenly put on the staff of Prime Base and was involved in the development and programming of the holographic displays on this Level.

The holographic equipment itself consists of a number of simple (if somewhat unusual) lenses and lasers of several different frequencies. The key to the system is the precisely timed computer controlled use of these items. For a static picture of the globe, the computer controls some thousand pieces of equipment using the fastest supercomputer available when Prime Base was built. Animated pictures are even more complex.

One of the most difficult parts of this is keeping the equipment calibrated. It is far beyond the capabilities of any human or humans to do this fast enough to keep the display running. As a result, the computer itself checks and calibrates the equipment 100 times a second.

The result is a real time, animated three dimensional display that can display any digitized image.

The most delicate part of the operation are the precision lens/projector controls. Malfunctions occur in these parts far more often than in the actual lens/projector systems themselves, and as a result, most of the spare parts for the system are for the control units.

OPS CYLINDER, LEVEL 9: TECHNICAL LIBRARY AND WORLD HOLO MAP

P.D. Note: Elevators 6 and 7 do not stop on this Level.

A. TECHNICAL LIBRARY

This facility was the Project's storehouse of technical information. None of it duplicates the Morrow Tech Library above. Not only was this felt to be unnecessary, but there was the question of available space to consider too. If somebody gets free with incendiaries here, the loss will be irreparable.

The Tech Library contains as much as could be gathered on all technical subjects. Much of the Library of Congress and the records of the U.S. Patent office can be found here. (And how that was done would embarrass some of the former employees of each...) The intent was to gather a definitive collection of "how to" information at all levels of science, technology and industry. This would be indispensable, to say nothing of hard to find, a few years after the War.

About one third of the total information contained by this library concerns "primitive" technology and ways of getting things done. It was recognized that some places would be starting over from scratch or near to it and "recipes" that began: "First, allocate power from the local grid..." would not be much use. So there is quite a lot here on things like building log cabins, making candles, field medical techniques and expedients, etc.

A1. library lobby

This is a large room that served as the primary point of public information access. Base personnel looking up information would normally come here to get it and would not be allowed into the actual "stacks" of the library. Information was requested here in any one of several ways (see below) and then waited for. There were a number of comfortable chairs and couches, along with tables and lamps, spread around the north and west sides of the room.

A2. Information Consoles

There are two of these running down the center of the lobby. The "inside" of each, where they face one another, was lined with eight chairs on either side. The chairs corresponded to computer terminals. People coming here would normally enter the library and head directly for one of these, requesting the system to locate and display the desired information. This system accounted for 90% of the visits to the library.

The "outside" of the consoles away from the chairs and terminals were card catalog cabinets. These contained "hard " listings of the contents of the facility, just like at any conventional library. People who failed to find what they wanted with the computer system might be able to do it here, or they might look here first for a name and then ask the computer system to "get" it.

A4. Assistance Desk

A long counter ran down the south side of the room. There were supposed to be members of the library staff stationed behind it. These people were to handle requests that could not be fielded by the computerized system. This was rare. So much so that there was hardly ever a librarian behind the counter. People who needed one had to call out and wait. There were too few library staff members to man the thing anyway.

A5. Library Office

There had to be some place to control the business of the library from and this was it. It's an office, with desks, chairs, shelves, and computer terminals. Unremarkable. The small room that lies off of this office was home for the libraries' computer. There were terminals everywhere, but this is where the beastie lived.

A6. Information Center

The business of both this library and the Morrow Tech library had little to do with providing information to Base personnel, though both did this. The main purpose of each was to get information out to field teams who desperately needed it. This room is where that happened.

The room looks most like one of the rooms of the commo centers upstairs, and it is a commo center of a sort. When teams called in for information, Commo personnel ordinarily relayed the request here after having made arrangements to call the team back when an answer was sent up to COMCEN. Library staff would then run down the information.

It was envisioned that there would occasionally be emergency situations where librarians would have to locate and transmit the information at once. ("Hello, Prime Base? This is Team X-13. We are laying a water main and we just found a big cylinder. It looks like a pressure bottle of some kind. It's big, yellow and green, has 'XTD-122' stenciled on it in bright red letters and it's hissing. We'd like somebody to tell us what it is RIGHT NOW!") The information center, through its links with COMCEN, was set up to do that.

A7. Electronic/Micro Reserved Stacks

"Reserved Stacks" is a librarian's term meaning books that are not generally available for circulation. Well, none of the technical libraries were meant for circulation so, properly speaking, all of the material was in the reserved stacks. This chamber held information which had been rendered into electronic and/or miniaturized mediums.

A8. Paper Stacks

This room was where the actual bound books were kept. Besides books there were papers, files, folios, technical drawings, manuals; an enormous amount of technical information.

Notes On The Libraries

Neither was a lending library. It was understood that people would come to the library, find what they wanted, and read it there. Copies could be made if necessary, but NO library material was to leave the premises!

The reason for this is simple. Only a limited amount of room was available in the Base; even for libraries and other useful information. Copies of books were too expensive, in terms of space, to keep in the Base. In general, there was exactly one text of a given type and an electronic copy, but that was all. Under the circumstances, they were not allowed to leave the library lest they be lost or damaged. The materials in the libraries were treated as though they were the last of their kind in the world because they might well be!

Base personnel were not allowed into the stacks for the same reason. Librarians were the only ones to go there normally. It was preferred that personnel make do with the electronic records which could be scanned via terminal. The handling of originals, printed on paper, was always avoided. If it had to be done, a member of the staff retrieved the text for the user. The user was never allowed to go poking about on his own. When the user was done, the book or other document was returned to its place by a librarian

While the Base was operational it had been possible to "call" the libraries from any terminal and get information via the libraries' computer system. Like all of the rest of the Base, the libraries were shorthanded. This too, was supposed to be corrected through the introduction of outsiders "if and when".

Thus for the short time the Base was operational, the libraries were very quiet, very empty places. Now they are even more so.

B. WORLD MAP HOLO

The Base needed, and had, many different maps, But it had a few (three in fact) that may have been the finest in the world. One of these was maintained here and in the corresponding area on the Level above.

This was a holographic representation of the world; it was a globe suspended in space.

The map did not "exist" at all times, it took power and effort to keep it "there". But when it was on, the globe was very large: 9.2 meters across (or just a tad over 30 feet if you prefer).

At no point did the map "touch" any other part of the room.

Being a projection, it couldn't actually touch anything anyway. It appeared to be hanging in empty space, unsupported yet solid.

It was controlled via an operations room where commands were sent to a computer that had no other purpose than the generation of the map. The computer controlled the projectors that showed the map. Through this system, anything that had been stored in the computer could be presented. There was an ever growing library of information that the computer could present. From the Operations Room, controllers merely directed the machines to project what was wanted and it would appear, as if by magic, hanging above the floor.

So the world could be seen as a political map, just as it is on most classroom maps, with the different countries of the world picked out in different colors. Or it could be shown as just a planet with no signs of man or his fantasies. It could show the geological formations of the planet, even to stripping away layers to see what lay beneath. The map could present climatic zones or wind patterns, or mean average temperatures at different times of the year or the relative availability of water or the density of vegetation or the concentration of arable land.

It could be made to show the cities of the planet as points of light, to connect these with road lines, or rail lines or the most used air routes. It could show densities of populations and even the orbital tracks of satellites. It short, it could display anything it had a record of and through the computer, it could make a fair stab at depicting conditions or situations that were yet to arise. Perhaps the most impressive of its displays was one of its simplest

and oldest: the presentation of the planet in space, the white of its ice caps, the earth tones of the land, the blue of the water, all rotating majestically as weather patterns moved around it, all against a backdrop of stars and utter silence.

But more than just being beautiful, the holo map was a tool, as is any decent map. It was used as such most of the time and was even used to teach.

Perhaps one of the most useful features of the map was that any or all part of the globe could be expanded until that section of the globe filled the entire projection area so that it could be examined in greater detail (the global section could be rotated to face in any given direction while the "back" was dark). Thus the planners could examine the planet as a whole or they could examine the weather patterns in Nome, Alaska with a view to what kind of weather a team could expect to find there the last week of September in an unusually cold year. The primary limit on this "zoom" capability was the limit of known detail at the point being projected.

B1. Accessways

There are two accessways coming in from the hall that surrounds the Trans Core. They narrow as one passes between the seating tiers until one is left on the round floor of the projection chamber. In form and appearance, the accessways were much like those found in a small theatre or stadium.

B2. The Projection Chamber

This room was built spherically in order to allow precise and accurate projection of the globe. The seating tiers hid the "roundness" of the room from the casual eye, but the arch of the ceiling, appearing as it did to form a dome, was clear to see while the "houselights" were on.

The interior of the chamber, seats and all, was an unrelieved flat (non-reflective) black. This gave the chamber a very "spooky" air. There were holes and moveable panels in the floor, walls and ceiling for the projectors but these were not at all obvious. The "houselights" were mounted at floor level and were used when the holo was not on and people needed to find their way around. When they were on they shone upwards with a steady, gentle glow. They were not bright and they did not illuminate the room. These lights just made things dim instead of absolutely black.

When the holo was operating the effect was that of a sphere hanging in empty, black space. The holo was always projected so as to fill the exact center of the chamber which meant that most spectators had to look "up" at it.

B3. Seating Tiers

The seating arrangements were like those of a Roman or Greek amphitheatre. There were no chairs or even free standing benches. Instead, there were tiers, much like steps, rising up the inside of the wall. The ones here, however, were much more comfortable than the stone ones used by the ancients, being cloth covered and padded. The tiers rise a little less than halfway up the walls. They end before the curve of the sphere/dome begins to arch over the floor.

B4. Operations Room

This was the control room for the holo. From here, orders were relayed to the control computer via a control console. A ladder in the southwest corner of this room gives access to the Level above, so operators could reach that area without having to go out to the stairs or elevators.

B5. Equipment Area

This space is in all ways similar to the one above, it's the "nuts and bolts" area of the holo projection system. This area is larger than the one above.

PLAY OF THE GAME: OPS LEVELS 8 AND 9, MORROW TECHNICAL LIBRARY, TECHNICAL LIBRARY AND WORLD HOLO MAP

As these two Levels were treated as much the same in the text, they will be handled here together.

Nothing on either of these Levels was considered essential to the mission. The libraries were necessary, the map was nice to have. The Project could get along quite handily without the map and anything that needed to be looked up in the libraries could be looked up, with or without emergency power. So neither of the two Levels are integrated with the EPG other than the lighting provided to corridors and the Trans Core.

Most of the doors on both Levels were provided with locks but not all. All of the locks were of the electronic type. When the Base was closed down, all of the doors facing the Trans Core were locked but no others.

The electronic files of the libraries, like those in the reading library in the Life Cylinder, have been removed from the Libraries' systems. Even if the Main Power Grid is restored, calling up electronically stored data will be a matter of luck until the filing system is reinstated.

The card catalogs and the paper documents are all in order, but these take a lot more time to go through. It helps a lot to know what you're looking for. And of course, since all door labels and other names have been removed, it will not be at all obvious which library is which, or even why there appear to be two identical libraries. (Teams which have been through the Life Cylinder may wonder why there appear to be three libraries.) But it is obvious, if enough doors are opened, that these are indeed separate libraries.

What will not be at all obvious is the purpose of the rooms that serve the World Holo Map.

Team members are most likely to enter this complex via the main "audience" doors on Level 9. (The door on Level 8 is just a plain metal door. It never had a name on it, so nothing has been effaced. Looking as it does like a power room door, or entry to a janitor's closet or any other "institutional, employees only" door, few teams bothered with it during playtesting.) This will leave them in the utter darkness of the projection chamber and seating area. What the Team will see is a completely black, spherical room, much of which is fitted out as an ancient amphitheater might be. They are not likely to grasp the purpose of it.

Turning on the equipment in this area will not help much, power needs to be procured for it first anyway. But until one of the tapes made for the system is loaded, nothing of any recognizable content will be shown anyway.

All of the tapes made are still here, they have been filed in their own library on Level 8. None of the tapes were destroyed or hidden.

If the Team does manage to get everything here operating, the PD should bear in mind that the tapes the Team will be viewing show a world picture that is 150+ years out of date. The Team should be aware of this too, but...

The other thing the PD should remember is that, if the Team ever gets power to the elevators, elevators 6 and 7 do not stop on either of these Levels. There are not even any doors for them here.

OPS CYLINDER, LEVEL 10: SITUATION/BRIEFING ROOMS

The layout of this Level is unorthodox. Much of it is open space shared with the two Levels below it. Where there are floors and rooms, these are "suspended" over open space as well. The effect of all this is not unlike that of a series of grand balconies and catwalks. This Level can be very disturbing for people with a fear of heights or open spaces...

1. Accessways

Four access ways radiate outward from the central Trans Core. These are 4.6 meters wide (about 15 feet) and cannot really be compared to catwalks. They have waist high, solid rails. When the power is on, these ways are lit by a soft glow which comes from light fixtures set at the junction of these rails with the floor of the ways. The light shines up and into the ways, but it is very

dim so as not to cause interference with the holography projectors. The light does not show above the rails. The color of the light is a pale blue. The ways terminate in an outer hallway.

2. Catwalks

There is a narrow ring that runs around all of the inside of the rooms on this Level, a ring of metal walkways. It is perfectly sound in construction and as wide as a sidewalk but people who fear heights will not like it. It is here for maintenance and adjustment of the holographic projectors which abound up here. The only way onto or off of this catwalk is via the accessways (short of jumping of course).

3. Outer Halfway

The outer hallway runs a complete circle around the Level. It gives access to the situation/briefing rooms found on this Level. When the power is on, the hallway is brightly lit with normal lighting everywhere except near the termini of the accessways. Otherwise, the hall is utterly featureless.

4. Situations/Briefing Rooms

These are all large rooms, intended to accommodate large groups of people for informational meetings. All eight of the rooms can be divided by means of a folding wall, for use by smaller groups.

Each room is equipped with appropriate gear. Folding chairs, school type desks, lecterns, blackboards, movie screens, overhead projectors and other aids are present in each so that there would be no delays of important meetings while somebody ran around trying to find where the erasers were stored! If undivided a room can handle an audience of 50 people with ease.

The rooms were intended for the use of Base personnel getting together for staff meetings, situation reports and the like. It was thought that, as time passed, there would be more and more need for such facilities.

5. Open Space

This is the shaded area on the map of this Level. A fall from up here would drop a body as much as 9 meters onto the floor of the holo map level. The space is not empty, just open. The area is crossed by numerous grids and struts. Some of these help to support the enormous weight of the Levels above, but others have no purpose other than to serve as supports and guides for holo projectors.

A word about these is in order here. The projectors operating in this open area are computer controlled and individually robotized meaning that when the computer orders one to move, it can aim, swivel and even crawl along a strut under its own power. As robotics goes, this was very trivial stuff, but it was very useful here. The only time a human had to wander out on the girders was when there was a breakdown. For ordinary maintenance and inspections, the robots could be ordered to come in to the catwalk themselves.

PLAY OF THE GAME: OPS LEVEL 10, SITUATION/BRIEFING ROOMS

There is not much on this Level for the PD to concern himself with. The only emergency power supplied this Level was for lighting of the causeways and corridors and the lights are burned out. The doors of the meeting rooms have locks but none of them are engaged. In fact, there's nothing at all about this Level to get excited over in terms of content.

However, there are a couple of things that might make playing the game a little more interesting. The Team will likely arrive here on foot, via the Trans Core, before the Main Power Grid has been reinstated. This is a very dark place possessing (for the Base) very odd acoustic qualities. The "causeways" are very high above the nearest full floor, they are relatively close to the ceiling and they are surrounded by air. Things will not only sound different here, they will *feel* different.

If the Team has any source of light, they'll find out pretty quickly that this is one very odd level. There are no walls anywhere nearby and they seem to be very high above whatever is in the darkness down below. If they have only feeble sources of light (such as candles, improvised torches or lanterns, issue flashlights with weak

batteries), they will not be able to see far in any direction: certainly not far enough to see a wall or the floors below. The light will just fade out into the darkness, revealing nothing.

This is a terror-making situation. Remember too that the guard/handrails along the causeways are only waist high. This Level is not recommended for people who fear heights or the dark. It is a natural place for unfortunate accidents to occur.

Lastly, it ought to be a very confusing place for the Team. What on Earth could this Level be for?

OPS CYLINDER, LEVEL 11: HOLO MAP VIEWING AND CONTROL

The facilities on this Level exist for the support, control and use of the equipment on Level 12 below. The two Levels really ought to be considered as two halves of a whole.

With regard to space used, this Level is best thought of as a big balcony since over half of it is empty space without even a floor to separate it from the Level below.

P.D. NOTE: Elevators 2, 3, 6 and 7 do not stop on this level.

1. Control "Input and Output" Centers

Four rooms fall into this category but all are marked as "1" on the map. The two rooms on the south end of the Level are information input centers, the two on the north are for information output.

The input rooms received data on outside conditions, primarily from the COMM INTERCEPT center and correlated it here. From here, the "rendered" information was sent to the map controllers below, either for immediate display, computer coding and storage, or both. Simply put, everything that was to be presented on the maps passed through here first.

The input centers were manned throughout the War and for some time thereafter. As information about the War poured in, controllers labored to digest it and get the maps below updated. This process lasted for some time after the last shot was fired, for it took a long time to catch up with the backlog.

It was planned that the input centers would go back into full operation when field teams became active. The reports of those teams would be used to make new entries on the maps.

The output centers, instead of receiving information, passed it on. After the input centers and map controllers and programmers had a finished or usable product, the staff of the output centers could use the information presented to answer questions and relay the information to where it was needed.

There are four rooms because there are two maps. An input and output center is necessary for each. Operations are not combined but they are compatible.

Physically, the rooms, like the Level, are out of the ordinary. The side of each which faces the map below is composed of glass and the glass leans outward at the top to reduce glare on its surface. The floor level of the control centers is fully a meter higher than the floor level of the rest of the Level making it necessary to have a short flight of stairs to get into or out of the rooms. Glass doors are present at the top of these stairs. The doors are there for soundproofing and not for security.

Inside the rooms are much the same in appearance. The glass wall is lined with consoles and operator's sets, commo receivers, microphones, headsets and computer terminals. The operators who worked these positions were in constant contact with map operators on the floor below and with other personnel in different parts of the Base, primarily the INTERCEPT center.

Behind these positions are desks, chairs and other, more prosaic office gear. The interior walls of the centers were lined with flat files which were full of maps. Each room had a large chart table and cartography equipment since one of the most important functions of the centers was to update old or produce new maps, not just to keep an eye on the big ones downstairs. The big holo

maps were there, in part, to make the other job easier and more accurate.

2. Main Floor level

As noted in the previous description, the input/output rooms had raised floors. The area marked "2" on the diagram is all flat, featureless floor. This Level though is lower than it would be on any other Level to accommodate the higher position of the I/O centers. The Trans Core divides the Level into two halves. To go directly from one side to the other requires a sashay through the audience balconies. These balconies are separated from the floor by waist high railings except where stairs down into the seats pierce the rail.

Note that the floor stretches in a circle completely around the inside of this Level. This was not an indoor track. The purpose of the circle is to give maintenance teams access to holo projectors mounted both on the rails of this walkway and on struts above it, below it, and hanging from the front of it.

3. Audience Balconies

The maps here are large and impressive, gaudy and colorful. They are and were worth seeing. During the War, the events of the conflict would be displayed here as quickly as they became known and verified.

It was therefore inevitable that people would be coming to the holo map area. Even if they were officially forbidden to do so, excuses, doubtless duty related, would be created to make visits possible. Crowds of people milling about the area would interfere with the work going on; they'd get in the way. Recognizing this, an official audience facility was included in the plans for the area.

Thus there are two audience balconies, one overlooking each of the two big maps. Like the arrangements in the World Holo chamber, these do not have seats as such. Instead, "steps", padded and upholstered, rise to the level of the surrounding floor. There are only four such steps below the floor, and so the balconies are not very large. More seating would have been nice, but more would also have seriously cut into the amount of headroom that was available on the Level below. The balconies are divided into sections by the presence of stairs leading to the floor above. These were not really necessary for moving around, they were included to channel traffic. The balconies are capable of seating 100 or so people each.

4. Balcony Stairs

These are just short sets of stairs allowing access to the balconies. There are four sets per balcony, or eight sets in all.

5. Stairs

There are four sets of these. They are here to give easy access to the floor below and to avoid the concentration of traffic in the stairs of the Trans Core. Given the relationship of Levels 11 and 12, there was some need of extra ways of getting between the two.

There are no latrines on this Level.

OPS CYLINDER, LEVEL 12: HOLO MAP FLOOR

P.D. NOTE: Elevators 2, 3, 6 and 7 do not stop on this level

This is where the big maps are displayed, the reason why the two Levels above exist. Everything on this Level is here to support the operations of the maps and their personnel.

There are two maps, one on either side of the Level. On the west is the map of the United States in particular and North America in general. The map in the eastern half of the chamber is a Mercator representation of the world.

The primary purpose of these maps was to plot the course of the War as it occurred: what was happening and where it was happening. The idea was to create an artificial image of the post-war world. With this as a tool, it would then be easier to plot the course of reconstruction. The big maps here could then be

used to update old maps or create new ones.

The object of these map holograms was nothing less than the creation of the first "living" maps, maps which changed as quickly as conditions did. These maps would always be as up-to-date and as accurate as the information was that they were based on.

Like the world holo on Level 9, these maps could show things besides "the end of the world". Stored in their unique library were many programs with choices available as comprehensive as those for the world holo.

A AND B. HOLO MAP STAGES

"A" on the western side of the Level, was the display area for the map of North America, while "B" was the area for the world. The stages upon which the holos were created were identical. Both are sweeping expanses of oyster white material, gently curving upward around the walls until these unique "stages" end, just below the level of the catwalks on Level 11 above. The surface area occupied was very large: each map was 59.8 meters (or 192.6 feet) wide!

Top to bottom, the maps were almost a "Level" tall. The maps were in fact so large that they could not be properly viewed from this Level at all which is why all of the controls and processes requiring observation of the maps were located on Level 11. The maps can properly be seen only from above, they were designed that way.

The curvature of the maps made for a great deal of space beneath them. This space was used as an equipment area for additional holo projectors, located beneath the surface of the "stages" and shining up through them. Access to this area could be had only through the stages. Crawlways covered by doors/plates were spaced around the periphery of the stages where they met the floor. The stages at this point were about a meter above the floor level. Within, the crawlways soon opened up to greater heights.

Every effort was made to keep the stages spotlessly clean. With lights full on the stages and no holos on, the effect was blinding.

C. HOLO EQUIPMENT AREAS

Control of the maps (i.e. what they were to present), was largely dictated from the in/out center on Level 11. Control of the maps was taken care of here on Level 12. All of the equipment and personnel here were part of this function.

C1. Map Display consoles and Walkways

The indented areas shown in the map stages were lined with control consoles, 10 on each side, for each map, giving a total of 20 in all. Each of the 10 positions for a given map had its own special function(s). One controlled colors shown, another the height of objects in "relief" settings, etc. The maps were also turned on and off from here.

These positions were not necessary to display a given map. This could be done by selecting a map from the library, feeding it to the control computer and hitting the "on" button (which admittedly is on these control consoles). The map would then appear.

Instead these positions were for the creation or alteration of maps. Each map in the library was "built" here by operators at the consoles, directed from the input center above. (it goes without saying that a thumb-fingered idiot with the controls unlocked can also ruin a map from here...)

Aside from the display controls, the rest of area C1 is open space, the moral equivalent of hallways.

C2. Lounge

Personnel manning the map Levels were not their own masters regarding duty hours; very long shifts could be expected. With this in mind, a lounge was provided for "decompression" and breaks.

The room is furnished with comfortable chairs and couches, coffee tables, 150+ year old magazines, even a coffee machine. There is also a card table, a couple of chess sets and a few ratty decks of cards.

C3. Machine Room

This is where the map control computer lived. The computer does not take up much space, but its support equipment, test equipment, etc. does.

C4. Computer Library

As "programs" for each map were completed, they were filed, cross-indexed and stored here. Note that there is only one way in and out of this room. If anything happens to the "maps" stored here, all of the gear outside is useless until new maps begin to be created.

C5-12 Storage

These rooms were left empty for future use. It was anticipated that at some time after the War, these rooms would be needed for additional electronic equipment to support and maintain the holographics. Because of the newness and complexity of the holographic equipment, problems were expected and planned for.

Rooms C5 and C6 were indeed used as a make shift emergency repair room for holographic projectors. Enough spare parts and tools were kept here to make "quick fixes". Anything more serious was sent to the Support Cylinder for repair.

Rooms C7-C12 remained empty after the War.

C13. Stairs

These stairs go up to Level 11 above. There are four sets, all of them situated by the walls at the end of the CI walkways.

PLAY OF THE GAME: OPS LEVELS 11 AND 12, HOLO MAP VIEWING AND CONTROL AND HOLO MAP FLOOR

These two levels are much the same in their relation to playing the game so both will be presented at once.

These were not mission critical areas so, like Levels 8, 9 and 10, emergency power was not provided other than for the lighting of corridors, walkways, and the Trans Core. Most of the doors have locks but few of them are engaged.

The comments in the Play of The Game section for Level 10 concerning darkness and acoustic qualities apply to these Levels too. Remember that the exact effect will be different depending which level a person is on.

The first thing that needs to be pointed out about these levels is that, while they contain controls and equipment that are complimentary, the purpose of all of this is probably going to be a complete mystery to the Team that finds it. Without the halo maps in operation, the only thing that the Level resembles is a subdivided skate boarding arena: and it doesn't resemble that very much.

The Control Input and Output Centers above those balconies look like nothing so much as the glassed in pressboxes found in most major sports stadiums. It will be obvious that something was watched here by a lot of people. But what that something was will not be obvious.

There are no "closed areas" on Level 11 except for the input and Output rooms. These are not locked and are loaded with control consoles and phones, computer terminals, com o headsets, rolling chairs and wastebaskets but there is nothing that would identify their function to the uninitiated. The rest of the Level is the observation balcony, catwalks and projectors and their support equipment. What this is for is not obvious either (except for observation), but it must have been considered important: four elevators have no doors in this place because the space was used for seating.

Nor are there any popcorn makers or a concession stand: it's not like a movie theatre. The seating on the balconies is comfortable if not luxurious, not at all like "institutional" seating that one might expect in a school or public auditorium. Thus there are many contradictions, many inconsistencies, all of which conspire in making the Level hard to "tag".

Nothing on Level 12 is likely to resolve the dilemma. There is dust on the holo stages but no other marks. The control console for the maps still have their chairs and headsets, but the rest of the walkway is clear. The lounge, the latrines, the various equipment

rooms, all of these were left intact. They were "tidied up" before the personnel left, but nothing was removed or hidden; but none of them reveal anything either.

The Machine Room and the Computer Library are locked, with the usual electronic, combination-type lock. Everything in them is as it was, but the index for the map library has been removed. The programs/tapes that hold the maps are all here, but they are labelled with numbers, not words. There is no reason to suppose that they are maps.

The confusion factor of the Holo Map Areas, both those on Levels 11 and 12 and those on Levels 8 and 9, should be very high. A lot of space has been devoted to these areas for no apparent reason. The Team will probably want to know why.

If they ever do get it figured out, we recommend that the PD wax eloquent in his descriptions of the maps. This should make the Team happy.

OPS CYLINDER: LEVEL 13, ARCHIVES AND ATLANTIS PROJECT LIAISON

The 12 Levels above this all had active functions. Personnel could be expected to be moving around, doing their jobs, and furthering the goal of the Project. This is the very nature of the Operations Cylinder. All except for this level,

This, the lowest Level in Operations, was different. It was not designed with any active purpose relating to the Base or the Project. More than half of it was given over to simple storage for the Project's archives. What remained (about 1/3 of the Level) was effectively empty and would not be used for at least 100 years (if then).

This Level of the Base did not directly serve the Project. It has been implied that the archives were where important documents and records of the Project and of the War were stored. This is true, but there is much more to the archives than that.

Looking at the map will show that there are several chambers in the archival complex. Each of these is large, rather too large, just for storing the documents and records of the Project. In fact, only one of the chambers houses Project files. All of the others serve different purposes. These others, in one way or another, were present to preserve some of the treasures of civilization.

A1. The Archive Offices

The purpose of the archive offices was to administer the archives. What this boiled down to in real terms was the cataloging and inventory keeping of the contents of the archives.

There are three rooms in this area. The windowed room fronting on the Trans Core was the filing and inventory office, the place where people worked to keep order in the archives. This room is a typical office, replete with desks, computer terminals, bulletin boards, etc. The small office off of this room to the north is the Archive Director's office; aside from its limited room, it is much like the larger office it supervised. The last room of the area is the one abutting the outer wall of the Cylinder. This room was the actual filing/catalog room. Here complete records were kept of what was in the archives and where these things were located. The files are kept both on paper and electronic mediums.

A2. Archive Access Corridor

The purpose of this extra space, separating the doors of the archival vaults from the Trans Core, was to place that additional buffer between this area and the rest of the Base. This was done only partially for security reasons. More important was climate control. Several of the archival vaults needed to be kept at temperatures and levels of humidity that were different from those of the rest of the Base. The access corridor served as an airlock.

A3-A8 Archive Vaults

The vaults vary in shape and internal volume, but their physical appointments are the same. Each was an armored vault, completely independent of the others.

Each of the vaults held a different class of objects. A3, the vault nearest the office and so easiest to get at, was used for storage

of Morrow Documents. Here all major Morrow records, from the first days of the Project, had copies on file. A complete record of the Project and its activities was thought a worthwhile thing to have in the post-War future, when people were bound to have questions regarding what the Project was all about.

A4, in volume larger than A3, was a repository for art treasures, specifically paintings. One of the worst things about the War, from the point of view of many of the Project's planners, was that it was certain to destroy most of the world's culture, most of its art, the greatest examples of civilization. (In modern times most of the world's greatest art treasures, of whatever kind, reside in major museums and galleries. Practically every one of these is located in a major city that is a nuclear target.)

So steps were taken to preserve as much as possible. Sometimes the item itself was acquired, usually through private purchase via Morrow Industries or through a series of dummies. More often an exact replica was produced by using the advanced technology available to the Project.

Whatever the form the item in question took, it eventually wound up here where hopefully it would sit out the War in safety and so be available for future generations. Examples, originals or perfect copies can be found of every major painter, school of art, or artistic period. From Rembrandt's to Picasso's, neolithic cave paintings to modern New York free-styles, a wide range of art can be found here.

A5, the smallest of the vaults, was used exclusively for storage of electronic media. In this case, records of the War. All of the recordings made by the Base, both audio and visual, are here in unedited form. Also present are Project synopses and summaries of events. It was thought that future generations were entitled to an unedited account of the War so they could draw their own conclusions of events.

There are records here going back to a time of several years before the War, recounting events of political and military significance from around the world. Dense records are found from a time from about one month before the War and continue, in ever smaller increments of time, until the final civil and military transmissions.

This is the only set of records of its kind in the world. There are military accounts still left here and there (see PF-02 Damocles), but these are not of the same order.

A6 is another vault devoted to the storage of electronic recordings, but all of these are of a different nature. Here musical, visual and other records of civilization are stored. The world's greatest pieces of music can be found here, usually in more than one form or interpretation.

Similarly, video pieces, dramatic, comedic, political events and many other visual performances, are found here. Also included are audio only recordings of famous people and events from a time before (or situations precluding) video recording. Most of these, especially the latter type, have audio introductions/explanations that accompany them. The purpose of this vault of the archives was to insure that the music of Handel and of the Beatles, the plays of Shakespeare and the farces of Peter Sellers, the words of Churchill and Hitler, would not be forever lost to mankind. All of the highest, and darkest, aspects of humanity that had been recorded over the course of the years have copies here. No effort was made by the Project to censor this collection: good and bad, it was the heritage of the race and an effort was made to pass it intact to the inheritors. There is even a copy of the movie *Dr. Strangelove* in the collection and as with many of the others, it is the only one of its kind in the world.

A7 is a vault dedicated to literature and other printed media. Facsimiles or originals of all of the great books and documents of the world are stored here. These include, but are not limited to, *The Egyptian Book of the Dead*, *The American Bill of Rights*, *Thucydides' Peloponnesian Wars*, *Hamurabbi's Laws*, *The Bible*, *the Durant's History of Civilization*, *The Magna Charta*, *Xenophon's*

March of the Ten Thousand, The Koran, The Constitution of the United States, The Bhagavad Chita and The American Declaration of Independence. Other works include *Das Kapital, the Tao Te Ching, The Wealth of Nations, Mein Kampf, Maleus Maleficarum,* and many, many more. Here again, no effort was made to "screen" or censor what was included in the inventory. It was never the mission of the Project to judge; only to preserve and to succor.

The vault of A8 was known officially as "Artifacts" but popularly as "this and that". The things that found their way into here were those that didn't exactly fit any of the other categories but were still deemed too precious to abandon. Examples include, but again are not limited to, fine porcelain, exquisite oriental carpets, ancient coins and other artifacts, Japanese sword blades, examples of Welsh weaving, and Hopi pottery. It was, to say the least, an eclectic collection.

B. Atlantis Project Liaison Sector

This is an area of utterly empty rooms. Their functions can be extrapolated or made up by the P.D. (if he is so inclined). Certainly there is nothing to identify them to any team wandering through Prime Base. This area was never used.

The Atlantis Project (and this is information for the P.D. alone since no Project Team member would know of it) was a companion organization to the Morrow Project. The mission of the Morrow Project was to help the United States and the North American Continent rebuild after the Third World War. As far as most of the Project's members were concerned, this was the only purpose of the organization. But a very few, highly placed members of the Morrow Project knew that there was a second organization: the Atlantis Project. That body was dedicated to carrying out the same mission for the rest of the world.

Personnel of the Atlantis Project knew of their Morrow counterparts but the converse was not true. Atlantis was not supposed to come on line until 100-150 years or so had passed (just about now in game terms). At that time, cadre Teams of the Atlantis Project would be activated by their own recall and retrieval systems and begin moving out and carrying the Mission (rebuild and succor) to the rest of the world.

But all of this was based on the notion that the Morrow Project would have been operational in North America for about one hundred years. The Morrow organization was to be relied on to have recreated a prosperous economy and technological civilization to back the efforts of the Atlantis cadre. That situation would have provided the Atlantis cadre Teams with recruits and support to carry out their mission.

More will be said about the Atlantis Project in the upcoming Timeline game, *The Atlantis Project*. For this module it is enough to note that *this area of Prime Base was set aside for the use of the members of the Atlantis Project* (who were not part of the complement of the Base) to use to integrate the actions of their organization with the Morrow Project. The vast majority of Base personnel had no idea what this space/area was for.

The area is not large. It was planned that, by the time the Atlantis Project became active, such activities would have been moved beyond the confines of Prime Base. But if this were not the case, this area still gave the Atlantis operatives a place to interact with their Morrow counterparts.

PLAY OF THE GAME: OPS CYLINDER, LEVEL 13, ARCHIVES AND ATLANTIS

There is not much on this Level for the Team to do or see unless they get into the vaults. The Atlantis sector ought to be a complete enigma. All of the rooms in it are utterly empty. The office furnishings the place required were going to have to be brought in from the outside or scavenged from within the Base. Remember: it was hoped that the area would not be used, that by the time that Atlantis came on line, Prime Base would no longer be necessary to the Project. So there is nothing in the entire sector that would reveal its purpose to the Team.

There was nothing on this Level that could be considered an essential service or vital to the mission. Thus there is no emergency power provision other than the usual Trans Core and corridor power. None of the doors in the Atlantis sector even have locks, save those that front the public corridor. (These were locked to keep the casual passerby out of the rooms which might otherwise have been used for impromptu storage, etc.) This was not the case for the Archival area.

All of the doors to the archive area have locks and most of the doors are vault doors to boot. The doors into the office from the corridor are pretty much normal, they're locked with the usual electronic type lock. Inside of the office all of the doors are open and all of the records/files/inventory are intact and in order: but one does need to know what to look up, and where, to find what one is after. The door leading from the office to the archive accessway and all other doors in the complex, are all vault doors.

Each of these doors is a couple of feet thick and made out of layers of hardened steel: nothing short of lasers or anti-tank weapons is going to go through them. The doors can be opened manually; but only from the *inside*. The outer doors that just lead into the accessway had simple electronic combination locks. The actual vault doors themselves required both keys and combinations.

But note this: all of these heavy vault doors locked by means of steel lugs that were moved either manually (from the inside of the locked area) or electronically. These doors are not on the EPG. Even if keys and combinations are at hand, these doors will not be operable until power is restored to them. It is thus unlikely that the Team will find out what is behind these doors for quite some time...

This area of the Base was designed to be stronger than usual. It had to protect things that were literally irreplaceable from blast, flooding or whatever else might happen. And it is proof against casual hazards.

If the vaults are eventually entered the Team may still be disappointed. Practically everything everything in all of the vaults is carefully crated and stacked. These were *not* galleries nor some piled dragon's hoard: this was a storage area. These things were never meant to stay here but only to be held here until they could be returned to the world. So why unpack them?

Most of the vaults have a lot of empty space, too, with all of their contents stacked around the walls and away from the doors. The vaults were rarely full, for, with the exception of A3 and A5, all were planned to receive more stuff. It was hoped that teams in the field would be able to locate, save and send on to the Base still more items, so space was left in the vaults for this purpose.

Remember while running the game that this *not* some treasure chest (though indeed it contains many treasures). There are no piles of gold and jewels! The fact is that the items in these vaults are likely to be next to worthless in the outside world: there is no market for them. It may be well to point out to the Team that they are the only people in the world who would find any of these things in the vault valuable.

LIFE CYLINDER, LEVEL 1: QUARTERS AND FOOD SERVICE

The quarters on this level are all of the smaller type, intended either for single or double occupancy with no children. Residents of this level were expected to be either single or transients.

Food services here were the main ones for the Base. One or the other of these facilities was in operation 24 hours a day. These services were located near the access ways at the top of the Ops and Support cylinders for ease in "commuting" to meals.

A. FOOD SERVICES

Note that on the map, four areas numbered 1-4 and separated by the corridor to Ops constitute this complex. Each of the areas separated by that corridor is complete in itself and is capable of operating independently. This separation allowed for continuous operation of the two facilities with no down time. If one was closed for repairs or cleaning, or preparing meals the other was still functioning normally.

The arrangements of the two were identical. Food was served free to all comers, the Base economic system did not apply in this center. Dining was buffet or family (i.e. mess hall) style meaning "grab a tray and go!"

A1 and A3: Kitchens

Kitchens are where food is prepared (even in Prime Base). The Food Services Center had two, one of which was always "open for business." Two were deemed necessary for round the clock operations covering a span of several years. This allowed one to be shut down for cleaning or maintenance or even special food preparation without taking the whole unit out of operation.

Both of the kitchens were large (roughly 30 feet across) and equipped to handle constant food preparation and serving. They were patterned on military facilities since these were closest in form and function. Each of the two was equipped identically and included freezing and refrigeration units, grills, ovens, stoves, work areas, sinks, pots and pans, cutlery, and all of the hurly burly of food preparation facilities.

The stores kept in each were limited. Generally, deliveries of foodstuffs were made every 24 hours from the Support cylinder.

A2 and A4 Dining Areas/Lounges

As the name implies, these areas filled two roles. While their attached kitchen was functioning, the area in question was a dining room; a place where people came to eat and left promptly. Loitering was discouraged. For those who wanted to hang around, one had only to cross the corridor to the "out-of-service" dining area which was a lounge/social area except when closed for cleaning.

Since most of this level was given over to dwellings for single or transient personnel, a large, common area for socializing and general relaxation seemed to be a good idea. Beverage dispensers (such as coffee urns) were located in the dining areas and not in the kitchens, allowing constant usage.

The appointments of the dining areas were adequate but far from opulent. They were better than a military mess hall but less than the Ritz banquet room. The chairs were padded, the tables were wood, the floor was carpeted, the lighting was indirect. Plants, space dividers, and utterly unmemorable wall-hangings completed the furnishings. Thus the dining areas were a lot like those you might find in any modern motel chain.

A5 and A6: Cleaning Facilities

Known to the inhabitants as "swamps", the Cleaning Facilities were where all of those dirty trays and glasses, pots and pans, were washed. These rooms contain what might be expected and nothing else: industrial strength dish washing facilities.

QUARTERS

As mentioned in the introduction to this level, the quarters on this Level are of the type intended for single or double occupancy catering to unmarried or transient personnel. Sample floor plans for these rooms are provided.

The quarters are set in rings. The inner ring, the one nearest the elevator/stair core, has 11 rooms intended for single occupancy. The middle and outer rings were designed for two people each. The total number of rooms available in both rings is 43. Ninety-seven people could be quartered on this level in relative comfort.

PLAY OF THE GAME:

The evidence of "the abandonment" is possibly more convincing in the Life cylinder than anywhere else. The food services are something of a shambles. It is obvious that there was a last supper because nothing of it was ever cleaned up. The kitchen that prepared it and the places where it was consumed still host the desicated remains. Furthermore, those areas of the kitchens where ready stocks were held, those spaces obviously intended for storage, have all been stripped. Presumably the departing Base personnel "packed a lunch".

The quarters located on this level tell the same tale. These show every sign of being abandoned under conditions that made speed more important than taking everything along. Closets and drawers stand open, chairs are sometimes found on their sides, beds lie unmade. Quite a bit in the way of personal possessions, especially where bits of clothing are concerned, still lie about as if dropped in haste or overlooked in panic. In some places it looks as though sheets were used to hold bundles of belongings together. Everywhere one looks there is evidence of a speedy departure. Most of the doors to quarters stand open and of those that are closed, none are locked. It is evident that those who left had no concern for theft or of coming back.

LIFE CYLINDER, LEVELS 2,3, and 4: QUARTERS

The Levels noted above consist entirely of living spaces: homes for Base personnel and their families. Relevant "sample" floorplans are provided. Laundry facilities are also present on each of these Levels, all of the "laundromat" type.

The Levels are so similar in function that separate discussions of each would be redundant. Instead, the generalities of each will be dealt with here and the specifics of each Level, such as they are, will be handled level by level.

The layout of each Level is different from the one above it and below it. The numbers and types of "apartments" present on each are also different. There are, however, many similarities between them.

No residence has its door facing on the elevator/stair core. Doors always face inward onto a central, circular corridor to psychologically distance residents from the Base. The inner corridor was the "street" on which people lived and the Level was the "neighborhood." Corridors were carpeted and the colors of the carpeting and the walls were soothing. Corridor lighting was indirect and low level. The intent was to convey a sense of peace and calm.

LEVEL 2

The inner ring of this Level has 12 two bedroom apartments. The outer ring has 15 three bedroom apartments and the laundry room.

LEVEL 3

All of the apartments on this Level are three bedroom. There are 8 in the inner ring and 15 in the outer for a total of 23 on the Level. The laundry room is in the outer ring.

LEVEL 4

The layout of Level Four is somewhat different. Note the access to the elevator/stair core is not available from all points of the Level. It is impossible to walk all the way around the core, something that can be done in most levels of the Base.

There are 19 two bedroom and 7 one bedroom apartments on this Level. The two bedroom apartments are in both the inner and outer rings, the singles are all in the inner rings. The one bedroom apartments are those which are wedge shaped on the inner ring, being bounded on two sides by corridors. One of the areas that would have been a one bedroom place is instead the laundry room for this Level.

PLAY OF THE GAME: LIFE CYLINDER, LEVELS 1-4; RESIDENTIAL

(The following notes are applicable to all four levels but do not take into account the special, deceptive arrangements found on Level 1.)

These four Levels in Life are perhaps the grimmest of the Base. This is the area where the Base personnel lived, and in most cases, died. Exploring the area should not be pleasant.

This section will discuss general conditions of the residential areas on all four of the Levels. The food service area on Level 1 is not covered here. For specifics about Level 1, see the Play Of The Game section for that area.

Whether one room apartments, shared apartments, or family dwellings, these are the areas where people lived. When the Team arrives it will be dark. It will stay dark until the Team reestablishes the main power grid. The only emergency power on any of these levels is limited to Food Service on Level 1, the public corridors of all levels and the stairway of the Trans Core. All of the lights on the Emergency Power Grid have long since burned out. But darkness is appropriate to the area where most of the Base's personnel lie sleeping.

The bio that raged through the Base and killed its people did not kill everyone at once. While at first it was not known why people were getting sick, it was figured out fairly quickly. Only the first people to contract the bio were surprised at their deaths: everybody else knew it was coming.

Work to find a cure went on to the last, but it was obviously hopeless. The Base Director gave orders to the medical establishment to issue poison to all adult personnel and additional doses to heads of families. The Base Director, in an open video address to adult personnel, made it clear that whether or not the issued pills were used was up to each adult, or in the case of young children, up to the parents. No one was ordered to suicide. The pills had been handed out because they were fast acting and painless and the plague was not. The Director concluded his short broadcast by pointing out that personnel were not to use the pills until given permission since all available personnel would be needed for a little while longer while the Base was shut down. He assured everyone that permission would be granted before the worst effects of the bio took hold. The last thing the Base Director said, with a wry smile on his lips and a catch in his voice was:

"This is the last General Directive: Personnel who do not wait for permission are in violation of orders. Such persons will be punished in accordance with the Regulations. If we can figure out how."

P.D. Note: This broadcast still exists. It's on videotape in the TV station on Level 7 of Ops. PDs are encouraged to get this tape into the hands of the Team.

The corridors of Level 2-4 are clear; there is no debris in them, no signs of struggle or destruction. There is a lot of dust, but most of it is in the carpeting. The feet of the Team will stir the dust up, but there are not clouds of the stuff. The warm colors used for the walls will be visible even in dim light, as will the (non-functioning) normal lighting system. Who knows whether or not players will recognize this as a living area? But the closest parallel between the corridors of these levels and the life experience of the Team will have been the halls of a very tastefully appointed hotel.

The doors in the hallway, the ones that lead to residences, all look much the same. All have doorknobs and all have card-slot locks. Each of the doors also has a brass cardholder set at eye level, but all of them are empty. These used to hold the names of the families or residents, but the cards were removed when the Base prepared for invasion.

Some of the doors are locked, some are not. Which is which is left to the PD to determine. Also left to the PD is what the Team will find beyond any given door. The following are some possibilities:

Not all of the homes of the Base still hold their occupants, but many do. Some people locked their doors, presumably for privacy, or perhaps because they were going away and knew they would not be coming back. And some may have locked up through sheer force of habit. Other people did not, possibly because there seemed no reason to. People always meet death as individuals.

Inside there are many different scenes. In a few homes there may be signs of violence as though, at the very last, a person took out their rage and frustration on their surroundings. Looking on such an area will be unpleasant yet it might be easier to take than what will be found in other places. For in most places, Base personnel handled death as they had their jobs: quietly and competently.

That attitude will be reflected in most homes. it might be found where a person sits in an armchair, a favorite book in the lap, with the reading glasses next to the empty cup, lying on the low table next to the chair.

In some places there might be short notes, cryptic and to the point, left for the Team to find. these will concern things that were important to the individual, that the individual did not want to die with them. An example might be:

"To the Project member who finds this: Greetings. In the top drawer of my desk (To your immediate left). you'll find a packet of tiger lily seeds. We couldn't grow tiger lilies in here. With them you'll find a photo, in a frame, of my family. Please take both outside. Outside. Plant the seeds, won't you? And leave the picture nearby. I'd planned to do it myself, but I can't, you see. Thank you very, very much. - Selma Washington.

None of these messages will have anything to do with the operation of the Base. There won't be many such messages,

Harder to take will be the room where the Team finds a couple, sitting together on a couch, their arms still around one another. In front of them, perhaps on a coffee table, there'll be an empty water glass.

Worst of all will be the bedroom. It may be off of the living room mentioned above, it may not. But the bedroom with the two small forms tucked lovingly into bed will not be forgotten by any true Project member. Nor the terrible necessity that made a father or mother send their children to sleep for the last time to protect them from more terrible things.

These scenes, or variations of them, repeat themselves throughout the residential areas of the Base. They do not occur

in every room or home. A fair number of people died away from home, still on the job or having succumbed to the plague earlier. But the majority of the people of Prime Base will be found here.

For the rest, the accoutrements of the residences are what you might find in any American home. The big difference is that most homes will be unusually tidy. This is due to the nature of the people who manned the Base. The Team might find a sink or two full of dirty dishes or a basket of dirty laundry, but these will be aberrations from the norm. In most places people cleaned up, knowing they would be going away and being the kind of people who cared about what people in the future would find and have. So dishes are probably clean and put away, laundry neatly folded and placed on shelves or in drawers. The most out of place thing the Team is likely to find is a half-empty box of breakfast cereal. Many people went so far as to clean out their refrigerators.

All of the personal effects of the people are still where they were left: where else would they be? So the Team will encounter photos, ashtrays and children's toys, empty softdrink bottles, sewing baskets and grocery lists. What exactly is found in any given area is left to the PD to determine. (Though during playtesting, no Team had the stomach for more than a cursory search of the residential areas.)

It's recommended that the PD make his descriptions of these areas as vital and personal as possible. These aren't just dead people here, they're dead comrades. More than that, these people died as they did in order to give the rest of the Project the chance to live. This includes the Team. The PD should find a way to make this known to the Team sometime during the course of the game.

Here's a final sample message:

"Dear Colleague,

I don't know your name, or when you'll find this. With that in mind, it's more than a little presumptuous to ask you for a favor, but I have little choice. If I could do it myself, I would. My children are in the next room.

Please don't leave them there.

I expect you're busy at the moment. Things have been arranged to preserve the Base, but much that has been done is likely to make your job, whatever that may be, more difficult. So I don't expect you to do anything at once.

But when you have time, please come back here. I'm not asking for myself; I really don't care what becomes of my remains. But children shouldn't be left alone in a dark room.

*Please, bury my children.
Robert Wilson"*

LIFE CYLINDER, LEVEL 5: SCHOOL AND DAY CARE

The purpose of everything on this Level was to provide for the needs of the children of Base personnel in the realm of day-care and education. The Base had no "stay-at-home" personnel. Every adult had a job. This meant that there had to be facilities to care for children while both parents were off "at work". Families with children also needed to have those children educated. A "children only" playground was also thought to be a good idea. All of these needs were met by the facilities on this Level.

A. THE SCHOOL

Base personnel had children of many ages, from infants to near adults. Over the period of isolation during which all personnel would be restricted to the confines of the Base, it was felt that more children might be born.

A school, and children going to it at regular hours was a "normal" thing and so was good for the emotional stability of all Base personnel.

Physically the school was built to maximize light and air. Every effort was made to create an "outdoor" feeling. Thus much of the school walls facing the Trans Core were made of glass for the sense of space.

While not a "one room schoolhouse", the school did have some similarities to that older institution. All of the Base's children, regardless of their age, came to school here. Some effort was made to keep the more extreme ends of the age spectrum separate by having different class times for the different groups. The school nevertheless served all of the grades from elementary thru high school.

There were comparatively few full time school personnel, The Base had so much expertise in so many fields that Base personnel often found themselves scheduled for teaching duty at the school. Such permanent school personnel as there were were equally expert: teaching and administration.

A1. School Foyer

School foyers in conventional pre-War schools and buildings were usually present as a kind of "airlock" for purposes of temperature control or as reception halls for the school building itself. The foyer of the Base school cannot serve the former purpose and there is small need for the latter. The foyer was included solely for the sake of the "feel" that it gives to the school: every school has one, so this one does too. Psychological effect is the only reason for its existence.

But within that purpose it serves all of the normal functions of a school foyer in that it has bulletin boards, provides a place to display a class's artwork, etc. Passing through it a student knew that he was now "in school".

A2: School Administration Area

School administration was minimal. The place just wasn't big enough to require much. So this room served a variety of purposes. There were desks, chairs and typing machines/computers separated by moveable partitions. Here a receptionist could field calls in the morning explaining that "little Johnny" was sick and would not be in school that day. Off duty teachers could sit around the coffee dispenser, grade papers and decompress. The principal could deal with a discipline problem in relative privacy. School records were also kept here, primarily through the service of a computer.

A3: Auditorium/Library/Dining Hall

This large room was glass walled where it fronted on the core and the playground. It served many needs. Its most important function was as the grade school library. Book shelves cover its "interior" walls and a modest card catalog is present. Tables and chairs cover most of the floor of the room. Some of these sport computer terminals that are linked with both the reading library on Level 9 of this cylinder and with the technical libraries in the Ops Cylinder. These were provided for the use of more advanced students though "field trips" to these facilities were also undertaken.

The room also served, at need, as an auditorium/assembly hall: a place where the students and staff of the school could all be brought together. The last purpose of the room was as a dining hall. Lunches were either brought by students and staff or carted down, hot, from the Dining Facility on the First Level. The tables of the library thus became lunch tables.

A4: Supply Room

School supplies, teaching aids, spare equipment, janitorial gear, all of this stuff had to be kept somewhere. This room is where it was put.

A5: Classrooms

There are 7 classrooms in the school. Each is capable of seating and serving up to 30 students, but the normal class size was 10 to 20. The classrooms usually served two grades apiece. E.g. the first and second grades would be housed in the same room and so on. The classrooms were set in sequence by grades. Moving from room to room shows a gradual increase in desk sizes and sophistication of classroom equipment.

The most outstanding feature of these classrooms is their rim-facing wall. These are utterly oyster white, not unlike the holo

stages in the Ops Cylinder. A drawer in the teacher's desk in each room holds the controls for these walls. Each is a simulacrum screen: a place where images could be projected by the equipment in the teacher's desk, requiring no machinery or lowering of light levels. This was a versatile educational tool. When not being used to display classroom materials, the controls could be adjusted so the walls simulated windows.

A6: Music Room

Roughly twice the size of the normal classroom, this room was designed for the teaching of music. It served both as a classroom, practice area and storage facility for musical instruments. The wall facing the playground is glass, but the entire room is soundproof when the door is closed.

B. DAY CARE/NURSERY

As noted in the introduction to this Level, Prime Base had no stay-at-home personnel. Day care facilities were needed to care for the children of working parents. The Base day care/nursery met this need.

New mothers necessarily stayed in the Base hospital or their homes. But after the new child had reached the age of three months or so, it could be taken to the nursery during working hours. The mother went along also (in most cases) as new mothers were usually assigned to temporary duty at the center. Like the school, the center had very few "permanent" personnel.

The center functioned for all children up to school age, serving as nursery, day care center and kindergarten. It was not terribly large because there were very few children needing its services and the number that would come was expected to remain manageable.

B1: Center Administration

This room served all of the same functions as its counterpart in the school though there were no papers to grade, no principal's office, etc.

B2: Play Room

This large room, glass walled where it fronts on the playground, is the common room of the day care center. Its primary purpose is to provide a large, indoor area where the charges of the center would have access to stocks of communal toys, books and the other impedimenta of kindergartens and nurseries. Children at the center spent a lot of their time here. The room is brightly painted and every effort was made to make it as "sunny" as possible.

B3: Classrooms

These rooms were only occasionally used for classes as such. Their main purpose was to serve as separate areas where different age groups could receive particular attention. So the rooms might be used for anything between beginning classes in reading to "coloring book seminars" to nap areas. The rooms were multipurpose and non-specialized.

C. PLAYGROUND

As mentioned in the introduction to this Level, the planners of the Base thought it a good idea that there be a separate, "children only" recreation area in the Base. This is that place.

The playground is geared for the needs of children from the ages of 2 or 3 years to the early teens. As such it is equipped with many common playground devices such as slides, swings, monkey bars, carousels, sandboxes, and the like. The area is sufficiently large that there is ample room leftover for a modest playing field for group games.

While much of the playground is covered with sand, a lot of it was planted with grass of the artificial "astro turf" kind. The intent was to create an outdoors feel to the place. The walls and ceiling over the playground were of the "flat holo" variety allowing for the projection of outdoor scenery and simulated sunlight (which is what was seen through the assorted "exterior" glass walls throughout this Level.) The illusion was enhanced by an honest-to-God white, wood picket fence separating the playground from the Trans Core! Artificial flowers "grew" along this fence.

The playground was thus a happy, sunny place open to children even when school was not in session. Park benches were available

for supervising adults. School and care recess periods were spent here. (Such periods were staggered so that groups did not mix.)

Older children were discouraged from using the playground and adults were forbidden to. Children too old for the playground made use of the adult recreational facilities where special hours were reserved for them. "Gym classes" were held there, not here.

PLAY OF THE GAME: LIFE CYLINDER, LEVEL 5

The school and the daycare center are intact and in fine condition. The people who worked here had ample time to close up shop. School was cancelled several days before the end. The staff of the level spent a little time putting everything in order, then left to help with other last minute jobs.

As a result, the facilities on this level are surreally neat and tidy. There are no stray papers, desks are all neatly aligned, toys and equipment are all put away. Somebody even put a sharpened pencil on each of the desks.

The level is dark of course. Emergency power lighted the corridors of the school, the daycare center, and the Trans Core, but was not supplied to any other area on this level.

There is nothing relating to the mission of the Base on this level, so it is not likely to be of any immediate value to the Team. All of the school's records are still here, either on paper or on electronically retrievable media. The computers and other electronics will still work, if the main power grid is restored.

There are no labels on doors or other identifying marks on either of the areas, but the place looks like a school. The playground makes it obvious that at least some of the activities of the level were devoted to children. (The artificial greenery present in the playground ought to add a macabre feel to the scene. The plastic flowers are still in bloom.)

None of the doors on this level are locked.

LIFE CYLINDER, LEVELS 6 AND 7: THE CIVIC CENTER

Where the other cylinders of the Base were work/mission oriented, the Life Cylinder was the "village" of the Base, the place where people lived. Villages and towns require a focus, a heart, a center of activity. Levels 6 & 7 of the cylinder were designed to meet that requirement.

The two Levels were not really separate in this purpose and should be thought of as one area. This area was occasionally two levels high for much of the floor of Level 6 was cut away to enhance the feeling of space and to accentuate the combined nature of the two Levels.

As originally built this area strongly resembled the inside of the ubiquitous American Mall. Lighting was subdued, plants abounded, stores were present and the "atmosphere" was conducive to spending time in the vicinity. But the area was more than a mall, it was downtown, the theatre district, the local park and the village square all rolled into one.

While the following descriptions outline the differences between Levels 6 and 7, the P.D. should bear in mind that this is done for the sake of clarity. Most areas of Level 6 are directly linked to areas of Level 7 below, but even where this is not the case it is helpful to think of the two Levels as one area.

LEVEL 6

As noted previously, Level 6 is essentially an extension of Level 7. Much of it consists of open space and rather resembles a balcony for the Level below it. A walkway/balcony extends all the way around the Trans-Core, but the rest of the south section above the park is open and trees once grew up through this gap.

6A: Auditorium Upper Level

Doors lead from the floor level of 6 into the auditorium's upper level, the balcony of the auditorium. This greatly eased the crowd pressure when entering and leaving the auditorium.

6B: Roof of the Community Hall

This upper level of the Community Hall below was designed to meet several possible needs. In the first place, it could be used to handle overflow from events going on below. On such occasions this area could be stocked with additional tables and/or chairs. Shrubbery in movable planters lent the space a "roof garden" feel. At other times, a low stage might be present to accommodate the performance of a band or small chamber group playing in the "open air" either for a concert or just to pass the time. Then too, the space might serve as a sitting area for shoppers or other casual visitors to the civic center.

6C: Restaurant/Bar, Upper Deck

The restaurant/bar on Level 7 lies directly below and this area forms an upper level of the establishment. "Dining on the terrace" was the intent of this arrangement. Chairs and tables were scattered about in a garden-like setting to convey a feeling of outdoor dining. Here too, plants abounded, kept in planters and situated to form separate dining rooms amidst the shrubbery. Stairs led directly to the restaurant/bar below.

6D: BX/Commisary

BX is an abbreviation for Base Exchange; the department store of the Base. Commisary in this usage is a term pretty much synonymous with supermarket. Between the two we have the major "retail outlets" of the Base.

The area denoted by the letter D is a semi-circular area wrapping around the entire south side of Level 6. The inward facing wall, the one overlooking Level 7 is lined with floor-to-ceiling windows; effectively a wall of glass. The main aisle of the stores ran just within these windows. Shelving and other display mediums radiated away from this aisle. Both store, Commisary and BX were here. The BX was concentrated on the west side, the commisary on the east.

LEVEL 7

This Level is the main floor of the civic center, the focus of the overall area.

7A: Auditorium

The Base Auditorium served several purposes. Its main floor was used for a stage and permanent seating. The balcony (Level 6) was devoted to permanent seating. Projection/equipment rooms were situated at the back of both the lower and upper levels.

The auditorium was used for public addresses, amateur theatricals and musical performances, public meetings and religious services. On some evenings it became the local movie house, for while practically any video could be ordered up in one's home, that just wasn't the same as "going to the show", an essentially social event.

Other things happened there, too. The auditorium was used for choral singing. It even served, though rarely, as the court room of the Base. In short, it was the Base's place for group "sit down" affairs.

It was large enough to handle big functions. The main floor was over a hundred feet across at its widest point and in excess of fifty feet deep. Between this floor and the balcony, the auditorium could seat all of the Base's personnel. (Before the post-War expansion.)

7B: The Community Hall

Smaller than the auditorium, the hall still served a lot of the same needs. The biggest difference, other than size, was the less formal nature of the hall. The entire floor could be used for seating, but only if a number of folding chairs were brought in, there being no "fixed" seating. Folding tables could be added. Kitchen and latrine facilities were present too.

So while the hall could be used for all of the things the auditorium was, it could be used for a few more such as dances, wedding receptions, banquets, etc. There was at least one night of each week on which the hall was used for general socializing with card playing and other activities. The hall was there for whatever the Base personnel might want to use it for.

7C: Restaurant/Bar

Many of the Base's people could cook in their quarters. These and other people could also make use of the Base's food services/mess halls. But many people feel the occasional urge to go out and find some food, good food. Food that they do not have to cook for themselves. They want to eat it in a "nice", if not elegant, atmosphere. The Base's restaurant/bar, known as "The Club" was there to meet this desire.

It was designed to be a refined place for eating and drinking. Simply drinking at The Club was discouraged. To this end The Club had a dress code: no uniforms of any kind allowed, civilian dress only, NO COVERALLS. Nor was The Club open for business at any time but in the late afternoon and evening.

It was well furnished and tastefully accoutered. No plastic of any kind was in evidence. Wood was solid and not pressboard or veneer. Crystal replaced glass, silver was used rather than stainless. It was quite a place.

7D: Concourse/Park

Surrounding the trans core is the usual clear space providing access to the Level, but there are some differences on this Level. For one thing, two corridors leave the cylinder here, providing access to the Ops and Support Cylinders. Yet another corridor runs along the side of the auditorium as a means of getting to and from the doors on that side. All of this is concentrated on the north and east sides of the trans core.

On the south side, the usual corridor is replaced with a park. This park was "real" and the grass, trees and plants were live. Paths meandered through the park. Benches were present as in any real park. Fountains, pools and small streams wandered through the area too. The only thing lacking was animal and insect life.

Artificial lighting kept the plant life healthy; so much so that some of the more boisterous trees had to be trimmed lest they grow against the underside of Level 5. While small, it was a pleasant place.

7E: The Lounge

While The Club was intended for dining, this, the lounge, was planned for the opposite. The lounge was the local bar, or perhaps the pub. It was a place for conversation and socializing, for getting together "after work" to have a few beers. Food could be had here, even a light meal, but the menu was limited and hardly the main attraction.

It was and looked like a bar. Stools and tables were the rule, not booths. "Outside" the lounge had an annex, a "sidewalk" extension where tables and chairs allowed patrons to enjoy the park and the concourse. The illusion went so far that this "outdoor" area was appointed with lawn furniture. In all, the lounge was arranged and thought of as an informal place to relax.

7F: Arcade

The name arcade is somewhat misleading to most of us because we have come to associate it with smokey dens filled with people of dubious quality or, at best, loud establishments at the local mall packed with mall crawlers. This establishment had very little in common with the "average" arcade found in much of the U.S. For one thing, since the Base arcade never was intended to separate customers from money, there was no profit motive.

For another, it was not competing with any other establishment, of any kind, for clientele; people came here because they wanted to be here and not somewhere else. Therefore, the Base arcade was never and could never be a "hang out", it certainly wasn't a meeting place for "undesirables".

Nor was it the slapdash affair that so many arcades were. This place was not a reconditioned gas station! Oak panelling covered most of the walls, mirrors enhanced the illusion of larger spaces, lighting levels were suitable for the activity of the area (they didn't flash, were not of odd colors or weird types), and potted plants rested on carpeted floors. This was not a place designed to extract quarters from children but more of an annex to the Lounge. (Although soundproofing was so good that patrons of the Lounge could not hear or be disturbed by the goings-on in the arcade.)

The amusements available reflected the overall atmosphere of the arcade. There were, it is true, some video games and pinball machines, but only a handful. There was even a lonely "skee-ball" machine, but this was solely for effect. There were many billiard tables. Note: billiard as opposed to pool. These were not coin-operated betting tables! Most of the amusements were games of manual skill and dexterity for several players. There was a skittle table and dart boards.

The arcade was, in short, a respectable place to play games with friends, not a place to deposit the kids while Ma went shopping. Nor was it a hangout for disreputable footpads.

One of the strangest testimonies to its atmosphere was that it became a "rite of passage" among children to be considered old enough to go to the arcade with one of their parents. And it was an acknowledgement of adulthood when one could come here alone and be accepted.

7G: The Tailor Shop

The name is somewhat misleading. This was not a place you could go to have suits made. On the other hand, given the variety of functions this service was expected to fill, no other name really fit. This establishment could provide minor alterations to clothing. Dry cleaning could be done here. Embroidered name tapes for Project coveralls were produced to order here. It was in general the place to go for piece cleaning, spot removal and a plethora of other needs having to do with fabric and clothing.

7H: The Class VI Store

"Class VI" is Army terminology for a store within the PX system which sells beer, wine, and liquor. Since that is what this Base store did and since the name is so short and handy, the Base equivalent was also known as a Class VI.

This was strictly a "carry out" business; drinking on the premises or in the immediate vicinity was forbidden. Hours of operation were also limited. The Class VI was open only three days per week. This store was the only place in the Base where you could buy alcohol, in whatever form, for home consumption, private parties, etc.

7I: Fast Food & Ice Cream Parlor

Sort of a combination snack bar and a many flavored ice cream cone place, the establishment was a hit-and-run eatery. The food menu would be recognizable to any 20th century American, consisting as it did entirely of french fries, burgers, hotdogs and little else. It was typical of the fast food fare offered by chain restaurants on "the outside". The other half of the business was the ice cream side, offering many different flavors of the stuff, served in cones and cups.

Selection was limited but it was a place to get a quick bite for lunch. Walking around the park with an ice cream became a popular way to kill an idle half hour.

7J: Barber & Beauty Shop

This is where the semi-pro hair benders of the Base practiced on their fellow troglodytes. It was a place where men and women might go for a simple haircut or for more radical alterations. There was even an axe and a mirror for do-it-yourselfers.

7K: Convenience Store

The Convenience Store was the corner market of the Base. It combined the functions of a local store, candy counter, tobacco stand and drive-thru. The BX/Commissary might keep limited hours but the CS was usually open. Even when the bigger store was open at the same time, the shopper who just wanted to get a gallon of milk and go would likely go to the CS to avoid the lines at the BX. The selection at the CS was much more limited than the BX but that was only to be expected. The key word in the name was convenience and it was that. It was the closest thing the Base had to a 24 hour store.

General Notes On levels 6 and 7

We reiterate here that the two Levels should be thought of as one area. This is the only way to get the proper feel of the place.

The area was the social/off duty hub of the Base. The focal point of the area was the park, situated as it was in the center

of the "business district". The area was designed to simulate the outdoors as much as possible, an effect achieved through the creative use of lighting and materials. The air flow was controlled and directed to simulate breezes, breezes which sometimes carried subtle outdoor smells. Daytime lighting was sunny. As outside night came on, the change was reflected here by lowering the light level and eventually simulating stars. The illusion was convincing if one didn't pay too much attention to it. The feel was very close to the real thing and this was the only area of the Base where "being outside" could be experienced. (As opposed to "looking" outside as through a window, something which was simulated in many areas.)

It was a popular place to spend time but was rarely crowded as duty kept the crowds small. Most of the "businesses" kept very limited hours, even the eateries and The Lounge. After all, Base personnel had to man them and they were hardly mission essential. Putting in time staffing these businesses was one of the many forms of part time work that Base personnel performed. For this reason these establishments were never all open at once. Keeping them all manned at one time would have used up a significant number of the Base's total strength. Only on weekends and in the evenings were most of them open at all.

The roof of the area, the underside of Level 5, stood free of all of the structures in the area. This roof was formed as a shallow dome, gently curving inwards from the walls of Level 6. Equipment on the top of the auditorium and the BX projected "sky" on the inside of the dome. Only the trans core touched this roof and the lighting there was such that the core always seemed to be a free standing structure that rose into the sky.

PLAY OF THE GAME: LIFE CYLINDER, LEVELS 6 & 7, CIVIC CENTER

The Civic Center was not much touched by the hectic activities of the rest of the Base during the final days. If anything, the Civic Center was left alone as much as possible.

The final days of the Base saw this area more regularly used than had ever before been the case. People took to gathering here in the evenings, even when they were at the point of exhaustion, just to be with other people. Sadly, as the days passed, there were fewer and fewer to gather.

So all of the Civic Center is much as it was during the heyday of the Base. It is more cluttered than some of the other areas since people were using it heavily but nobody could be spared to keep it up.

The shops and services located here are intact. Their doors are locked and their windows remain unscathed; there was no panicked looting. The doors to shops and services all have ordinary locks and keys.

The "public" areas of these levels, auditorium, restaurant, etc., are all unlocked though their doors are closed.

Emergency power was not supplied to either level except for lighting. This did not extend to the elaborate lighting that made the artificial sky possible, but only to the caged blue lights used elsewhere in the Base.

Canned and bottled foods and beverages can be found in several of the establishments here. There is even a fair amount of variety but the quantities are limited. Not much was left here by the time the Base closed down.

There is one area that is in notably bad condition. This is the concourse/park area. Here all of the plant life is long since dead. All of the water courses and fountains are bare and dry. The remains of the plants are still here, and they choke a lot of the floor space. The plants, after all, did not die at once. They continued to grow and prosper for some little time; the last life in the Base. So by the time the Team gets here, there will be what amounts to a dry, dead jungle filling the south end of both of the levels. This dead growth blocks all of the paths that once led through the park and the sidewalk in front of the shops on Level 7. It also blocks the doors on the south side of the Trans Core. Some of the trees that were planted here finally made it to the bottom

of Level 5.

A lone man could move through this mess in 15 minutes or so, but he'd better not be carrying much or be in a hurry or trying to walk a straight course. Clearing the area would take 8 people not less than a week, and that assumes the use of axes, machettes and chainsaws. It would be a beastly job too. All of this stuff has been dead a long time and would start to turn to powder and dust if anyone seriously messed with it. It can be dangerous too. Vibrations toward the base of a tree trunk can cause tree tops to come crashing down with no warning. But any experienced lumber man knows that.

LIFE CYLINDER, LEVEL 8: EXERCISE & RECREATION

This Level was home to the Base's exercise and recreational facilities. These were more extensive than might be imagined, more limited than was desired. The center offered swimming, dry and wet saunas, a weight room, raquetball courts, and general gym facilities. The particulars are given below.

A. LOCKER ROOMS

There are two of these, one for males, one for females. Both are large, each having nearly 800 square feet of usable floor space. Between the two there was enough locker space for ail of the Base's permanent personnel with some space left over for expansion.

The locker rooms adjoined shower facilities (A1) and latrines (L).

B. SWIMMING POOL

Between the two locker rooms (but with access to each as well as the showers), is the swimming area. The size of the Pool is modest, only 45 feet by 30 feet at its greatest extent. Still, this is enough for a few strokes and is better than nothing.

The pool was deepest at its center and not at one or the other end. The only diving board is therefore located at the north extremity of the pool. The maximum depth of the water was only 8 feet.

Surrounding the pool is a carpeted deck (B1). The south end of the pool abutts on a largish whirlpool/jacuzzi (B2).

There was no way to hide the fact that the pool was not large, not an Olympic sized wonder, so it was not even tried. Instead, the entire pool area was appointed in such a way as to make it look cozy, inviting and relaxed. The high school gym was out, the health club was in.

Lighting, while adequate and bright, was indirect and mellow. The ceiling above the pool was lower than normal and appeared to be supported by wooden beams. The walls, instead of being tiled, looked like wood paneiling. Even the carpeting, hideous indoor-outdoor stuff, looked good and was done in bright patterns.

The finishing touch was the north and south walls. Where these met the running track and the Trans Core, the walls were made of glass, letting people see the pool from without and vice-versa.

C. RUNNING TRACK

This is a circular track which surrounds the Level. Designed expressly for running around in circles, the track is surfaced with a non-skid material for good traction and is gradually banked as one gets closer to the outer wail.

The track can be entered or left via four points in the Level, but the most commonly used were those nearest the locker rooms. Much of the inner wail of the track is transparent, allowing a change in scenery and reducing the impression of running around in a tunnel.

D. WEIGHT ROOM

What can you say about a weight room? This one is nicer than many, more like the one at a posh health club than the one down at the "Y".

E. & F. SAUNAS

Each of these areas is subdivided into two more for purposes of keeping the sexes separate. E is a "wet" sauna, similar to a steam bath but rather more extreme. (For more on saunas, see PF-02 DAMOCLES). F is a dry sauna, heat without steam.

G. GENERAL GYM AREA

The limited space of the Base kept the amount of room that could be allotted to a large sports area to a minimum. Thus this gym is small by most standards. its central feature is a wood floored volleyball court of regulation size. Suspended from the ceiling at one end of this court and arranged so that it could be retracted is a basketball hoop and backboard. This allowed half court games and practice but not "real" games.

The gym could also be used for an assortment of gymnastic events, those that did not take up much space. Parallel bars, the vaulting horse, rings, and similar events could be practiced here.

Both the north and south walls are glass.

H. EQUIPMENT ROOM

Storage space was needed to house a variety of athletic equipment when it was not being used. A place was needed to check this gear in and out as it was needed. This room serves both of these purposes.

Most of the items stored here are largish, things like gymnastic gear and mats to cover the surface of the volleyball courts for the gymnasts. But there are also things like basketballs and volleyballs, racquets and other sports items. The room has a counter in its north wail for checkouts and a door in the west wail for access. Janitorial gear was also kept here,

I. FREE EXERCISE AREA

This large room had no one purpose. The floor is covered with mats to keep it soft though these mats could be removed. The room could be used for a variety of individual activities like private exercise. Conversely, the room could be and was used for regularly scheduled group activities/classes. Chief among these was aerobics/dancing, group exercise, and martial activities of the karate/judo type.

J. BALL COURTS

Designed with racquetball in mind, these courts could also be used for modified forms of handball, squash and other court games.

NOTES

The Rec Level was not large but it was as well equipped as could be managed. Like so many other areas of the Base, it could be small because the number of people using the facility at any one time would be small. The Rec Level was not set up for team sports on any scale.

An important point to note is the atmosphere of the area. The designers tried for, and achieved, the feel of a luxury fitness club. Bare tile and the smell of sweat were anathema to this philosophy. Carpeting, indirect lighting (where appropriate) and ferns were the idea.

PLAY OF THE GAME: LIFE CYLINDER, LEVEL 8, EXERCISE AND RECREATION

Nothing on this Level was important enough either to lock up or to supply with emergency power. Only the corridors and the Trans Core have emergency power. This does not include the running track that circled the area.

No significant damage occurred in the pool area since the Base personnel had the presence of mind to drain the area as part of the Base's shutdown. In fact, the pool and associated wet areas are in good shape and would work just fine if power and water were restored.

All of the sub-areas on this Level are as described in the text. Things were not scrubbed down before the end, but there is not much clutter either.

LIFE CYLINDER: LEVEL 9, READING LIBRARY/LAUNDRY

As this Level contains two areas which bear little resemblance to one another, no general description of the Level is possible. We will go directly into specifics.

A. BASE LAUNDRY

Many of the functions/activities of Base personnel made a central, professional laundry facility a must. While hardly germane to most of the Life Cylinder, the laundry begins to make more sense when thought of in terms of the two mission oriented cylinders. A lot of work clothes there needed to be cleaned, to say nothing of other mission related cleaning jobs. But why put the laundry in the Life Cylinder? Because the hospital is in the Life Cylinder.

Nothing requires the services of a laundry like a hospital. All of the other Base's laundry requirements *combined* do not equal those of the hospital.

Understand that this laundry is an industrial strength establishment that has nothing to do with cleaning the civilian clothes of Base personnel. The laundry does coveralls and other Project stuff, even sheets, blankets and pillow cases; all issue items. For other needs, personnel were on their own.

Nor is there any point in going into much detail about what, exactly, is in this area of the Base. It is a laundry, full of equipment related to that mission.

General comments are, however, in order. The laundry had two very large doors to the west and east of the trans-core. The western door was used for incoming laundry, the eastern one is where clean laundry left. The internal setup of the laundry was based on these two doors. All of the equipment was set in an assembly line like array leading around the outer curve of the Level from the western to the eastern door. First came the washing/cleaning areas, then drying and finally folding/ironing and dispatching near the eastern door.

B. POOL SUB-LEVEL

Swimming pools tend to take up a lot of vertical room, especially when they are indoor, high-use facilities. The pool on the Rec Level above is no exception and this space is where the "floor" of the pool winds up.

Not that the space is completely filled by the pool itself; it doesn't come down that far. But a lot of the ancillary equipment for the pool is located here including: heaters, drains, pumps and related equipment, as well as supports to keep the pool from falling in.

What space is not taken up by pool machinery/gear is used by the laundry as it has many similar hydraulic requirements. Thus the area is low ceilinged, dimly lit and crowded with machinery which, when it is operating, is very noisy. People more than 4 1/2 feet tall cannot stand upright here.

B1. Control Room

Much of the laundry is automated and controls for such machinery are located near the process in question. But overall controls, those necessary for shutting down everything all at once, are located here. Most important of these controls are those that deal with machinery in the pool area, the ones for regulating water flow, heat, hot air, etc. There is a lot of power and a lot that can go wrong in any industrial strength laundry, so a central control room is good to have.

A secondary function of this room is to house some of the controls for that swimming pool, for its heat, pumps, etc. They had to be put somewhere, and this was as good a place as any and better than most.

C. LIBRARY

The technical libraries of the Project are in the Ops Cylinder. This library is a reading library. For the most part it is filled with works of literature/fiction, philosophy, religion and similar branches of study or interest. In its way it is as much of a reference source as the other two libraries. If one was in need of cultural information or history, one would have to come here to pursue

it and not to the Ops Cylinder.

Thus this library is laid out much like those in the Ops Cylinder with extensive facilities for reference and recall. Most of it was found in miniaturized form available only to specialized retrieval and was not open to the "public". This form of storage allowed for a collection nearly as extensive as the Library of Congress.

Unlike the facilities in the Ops Cylinder, this library has a very large area given over to books on shelves which are directly accessible to Base personnel. In this it was a browsing library that loaned out books to personnel for home reading.

C1. library Lobby

This is a largish, open area, well lighted and furnished with truly comfortable chairs and benches. It was the library's main casual reading area. In the center of this space are the card catalogs of the library (in computer form to save space). Sixteen people could use the filing system at one time from this space.

C2. Open Stacks

These are in the same room as the lobby but this area really constitutes a different section. Two rows of shelves, each about 15 feet long, curve away toward the north wall of the library. These shelves stretch from floor to ceiling and are simply packed with books. Around 10,000 titles can be found here. These shelves, like those in the libraries of the Ops Cylinder, are structurally load-bearing. They cannot be moved or knocked over as they are an integral part of the Level.

C3. Private Rooms

These three small rooms served as meeting or discussion areas as needed. One was a smoking lounge for tobacco using readers. All were furnished as comfortably as the lobby but each also contained a conference style table and chairs.

C4. Circulation Desk

Since this was a lending library, there had to be a place to check books in and out, or to ask questions. This is the place. The service counter served the needs of the "public" and the room behind the counter was used primarily for sorting and storing returned books until they could be reshelfed.

C5. Records

This part of the library dealt with the infrequent electronic requests made on its services. Here all of the libraries' contents and flow was recorded electronically via computer. Thus "phone in" requests were handled from here. The computer filing system was also a great boon to the facility's day-to-day operation.

C7. Closed Stacks

Open stacks were that part of the library and its books which were available to the general public for casual perusal, signing out or whatever. The closed stacks were the opposite. They were the area of the library which housed books or documents that were not on public display and not normally available for loan.

Usually in public libraries this section was small and limited to expensive reference works or old and valuable books. Here in Prime Base this area was not small, it was nearly the size of the open stacks.

There were not many bound books here, most of the information in this area was electronically stored for computer retrieval. It contained (and still does) much of the Library of Congress's inventory of books on non-technical subjects. The information was stored on disk, microfilm, microfiche and other storage media. The information was available to the Base personnel on a "by request" basis, meaning that you had to know what you wanted and could ask for it by name. The information would then be displayed on an appropriate computer screen.

PLAY OF THE GAME: LIFE CYLINDER, LEVEL 9,

The laundry on this Level is on the Emergency Power Grid. Laundry equipment and machinery can be activated from the control room (B1 on the map) simply by operating the proper controls. This is an example of the "command" function of the EPG, the power is there but it has to be turned on.

Wishful thinking on the part of some designers might have made the inclusion of a hospital in the Base seem an unnecessary extravagance. But this sort of wishful thinking was not indulged. The very nature of the Project, the kind of missions that its people would have to undertake, the very times that this Base was being built to survive all pointed to the likely need for extensive medical facilities.

Even if this were not the case, some precautions would have to be taken. Hundreds of people living together for a period of several years will generate accidents; one doesn't need actuarial tables to know that! Some of these will be serious. From burns received in a laboratory mishap to compound broken legs caused by a slip on the stairs, the Base needed a hospital.

The Base hospital was first a community clinic, its role as a combat hospital was secondary. The Base was going to have to operate as a closed community for many years and its hospital is located in the Life Cylinder as a part of the community rather than in Operations or Support where one would expect to find a hospital geared to deal with "outside" problems.

The hospital was based on the concept of "treatment in the hospital, recovery at home." This meant that patients (Base personnel initially) would spend as little time as possible in the hospital. The hospital would do only the "hard parts" after which the patient would be returned to his home and job as quickly as was practical. This was possible because of the close proximity of everything in the Base. Out patient care was not an obstacle when the making of house calls was as simple as boarding an elevator. (And Prime Base medical personnel did make house calls.) Nor were vast numbers of doctors and nurses required.

The Base medical personnel were predominately of the "practicing" species as opposed to the "researching" type. There were no specialists on the staff either, as broader experience was required. The quality of the staff was excellent but not of the best available. It was thought that the majority of medical problems that the Base would face would be of a routine kind. This did not call for the best people the Project had. Those were scattered with Field Teams where they were more likely to be needed. It may seem paradoxical that there are no brain surgeons at Prime Base but there are in the field, but only at first glance.

The exception to this rule was the handful of biological researchers on the Base staff. While technically medical people (some of them anyway), their prime duties lay in the field of research, particularly with regard to the effects of biological weapons. This small team were the best experts in their field that the Project could find. They were concentrated at Prime Base so they could work on problems affecting the Project as a whole. And, when nothing more important was brewing, they also served as hospital staff.

The descriptions of the hospital which follow are brief. Full details of all areas are not included. A full description of even a modest hospital, like this one, would require a largish book. Such a description has no place in a game module.

A. EMERGENCY AREA

The emergency area fills the functions of the Emergency Room of a regular hospital.

A1. Emergency Room

This room opens to the corridor surrounding the trans core. It is where emergency care begins, where people who need it arrive. The room serves as both a sorting area and a waiting room. In the event of multiple arrivals here, this is where decisions are made as to the severity of each case and the precedence of treatment. Cases which are not to be handled at once remain here. The area beyond the counter at the north end of the room is the staff station which was manned at all times.

A2. Treatment Rooms

Emergency cases processed through the emergency room came

to one of these three rooms for treatment. Normally, only the room to the south of the ER was used, but the other two across the corridor were available if "demand" required them. These two rooms to the east could also serve as operating rooms if necessary.

There is a small closet at the north end of the ER corridor which holds common supplies that might be needed for the ER area's work. The Emergency area was more extensive than it had to be for the handling of most Base situations. Normally the ER alone and one treatment room were all that were kept ready. The additional facilities of the area were present for surge periods that might come when the mission of the Base became more active (i.e., when the Base personnel started going outside and other personnel began to come in).

B. CRITICAL CARE CENTER

Critical care in this usage refers to surgery, post-op care, isolation, intensive care and the various support groups needed for the above. Here again the facilities are more extensive than the Base would ordinarily require.

B1. Main Access/Staff Station

Most of this area is corridor. The door leading to the trans core usually remained closed though never locked. It was the primary entrance and exit for hospital personnel to the area. The staff station is the area behind the counter south of the ER. Its primary purpose was to screen people entering the area and turn back those who had no business there. It also served as the communications point for the area.

B2. Operating Rooms

There are four of these situated against the east wall of the Level. Each was fully equipped and independent and all were linked to the emergency power system. Note that the two "extra" treatment rooms of the ER area could be used to augment these operating rooms in times of crisis.

B3. Supply Room

The supplies kept here were all associated with critical care. The emphasis was on surgical gear and other immediate items. The list went from prepared, sterile packed instruments to pressurized gases to gurneys.

B4. Gowning

A combination locker room and gowning area, the main purpose of this room was to provide a place where the hospital staff could get into those clothes peculiar to surgical operations.

B5. scrub

Next to the gowning area was the scrub room, the place where staff washed before entering surgery. The room is full of sinks and cabinets holding soap, masks and other paraphernalia.

B6. Linen Supply

Hospitals use a lot of laundry and no place does so more than critical care. This room is full of gowns, sheets, towels and other hospital linens.

B7. Sterile

The instruments and equipment used in critical care often had to be rendered sterile, this room is where that was done. Autoclaves and other, fancier gear make up its most interesting features. Sterile packaging materials are also found here.

B8. Clean Up

The critical care area could be a very messy place full of bloodied equipment. A facility was needed where these things could be cleaned, and cleaning stores kept. This is that place.

B9. Post-Op

Post-op is the diminutive term for an area where post-operative care is dispensed. People are not normally wheeled out of surgery and dumped into a hospital bed. First they spend time in a room like this one, where they can be looked after and, if complications arise, be hustled back to treatment. Under normal conditions this room could handle up to nine patients.

B10. Intensive Care Unit (ICU)

Patients needing intensive care were kept here. A great deal of specialized equipment is normally associated with ICUs and

the Prime Base facility is no exception. The unit had eleven beds arranged around the walls and the bulk of the necessary gear filled a space at the center of the room.

B11. Isolation

This room is similar in concept to the ICU but the emphasis here is on treating unknown or unusually virulent (and communicable) diseases. The interior of this area could be sealed off from the rest of the Base. It was set up to handle seven cases normally, but could accommodate double that number in emergencies. This facility was included in the hospital to handle the effects of biological weapons.

B10a & B11a. Observation Rooms

These two rooms look into their counterparts of ICU and isolation. The rooms contain monitoring equipment for the patients in those rooms.

C. FORENSICS

People die everywhere and all of the time. The designers did not think that Prime Base would be an exception. Therefore this area was included in the Base.

C1. Autopsy

This is a room where the causes of death could be determined. It is much like an operating room.

C2. Supply

Forensic medicine needs supplies too. This is where they were kept.

C3. Morgue

One of the peculiarities of Prime Base was the singular lack of cemeteries. It was hoped that such would not be needed too much during the time the Base was sealed. After that, holes could be dug outside to handle the problem. In the meantime, there was the morgue. This one holds up to 27 customers in tiers of 3 against the walls.

It is worth noting that the door in the corridor leading from C3 to Forensics was one of the few doors kept locked as a matter of course.

D. WARD HOSPITAL

The ward area of the hospital is a slight misnomer; there were no wards. Yet this is the traditional name for this area in a hospital. It is the area where casual patients of the hospital are kept, either before surgery or other treatment or during recovery from the same.

D1. Staff Station

Like the one in critical care, this one is here in part to control the flow of people. The secondary purpose of this one was to serve as a mini-admin center for the ward. It was the traditional nurses' station.

D2. Break Area

This was the closest thing the hospital had to a staff lounge. Nothing more extensive was deemed necessary given the closeness of the hospital to everything else in the Base.

D3. Janitor's Closet

D4. Ward Supply

This supply room was geared for the needs of the ward area and contained appropriate stocks.

D5. Infant Care

Over a period of time as long as Prime Base was expected to be sealed, the birth of children could be reasonably expected. This double room was where most post-natal care was administered. It was similar to rooms found in conventional hospitals and had two glass walls and doors which allowed viewing of the occupants. The outer of the two rooms was an observation and handling area for the new parents. The inner room was where the infants were actually kept and was designed to accommodate up to 12 children under normal conditions.

D6. Ward Rooms

There are seven ward rooms. Each had its own latrine and each was designed to accommodate four patients (though double that

number could have been handled in emergencies). This gave the hospital a capacity of 28 patients under normal circumstances or, for short periods, a capacity of 56. As mentioned in the introduction to this Level, patients were kept in the hospital for as short a time as possible.

D7. Patient Recreation/Lounge

This was a comfortably furnished room where patients could relax away from their sick beds. It was stocked with books and games as well as a big screen version of the Base's internal video system where movies or "regular programming" could be shown.

D8. Linen Storage

This is where the linens and such like used for the ward area were stored.

D9. Information Counter

The information counter was a place where visitors could come to have their questions answered. Like the other staff stations, this one also served to control traffic flow.

E. ADMINISTRATION/GENERAL PRACTICE

This tier of the hospital served to house the administrative branch of the hospital and casual visits by patients for minor medical problems. As such it housed offices, labs and the facilities generally associated with a clinic.

E1. Reception/Waiting Room

This was just like the ones in any conventional hospital.

E2. Staff Station

This desk was where patients checked in and the routine of processing them through the hospital began. Note that it is the "other end" of the same area in Emergency (section A). The staff divided their time between the two and there was someone on duty at this desk 24 hours a day. The main switchboard of the hospital is also located here.

E3. Records

The medical files of all Base personnel were present here (as in the records section in the Ops Cylinder). Project personnel who were transients at the Base had records copied and kept here as part of their in-processing. New personnel had new records begun and kept here. These records are stored both electronically and on paper.

E4. Examination Rooms

The two examination rooms were typical of the breed and were similar to those maintained by any GP. They had tables, cabinets filled with cotton balls, tongue depressors and rubber gloves. Eye charts hung on the walls.

E5. Administration

The hospital admin area is typical of all hospital's admin areas. It is where the paperwork gets done. Not that the Base hospital generated much but still, there needed to be a place where schedules were made, files kept on medical stores, duty rosters posted, and all other matters of normal routine taken care of. It was little more than a large office filled with computers, desks, filing cabinets and telephones.

E6. Hospital Director's Office

This was as in E5, only smaller.

E7. Conference Room

The central features of this room were the large table in its center and the book shelves lining the walls. Here group meetings were held. The shelves contained a limited but practical medical library for quick reference. The main medical library, as complete as could be done, was part of the technical library in the Ops Cylinder which was only a phone call or a short trip away.

E8. Pharmacy

The Base pharmacy stocked a great variety of drugs and other medical compounds. Some compounding was done here but most of that went on in the laboratories of the Support Cylinder. The items kept here were limited in quantity if not in number, due to the limited space available. Larger stores were located in the Support Cylinder. Still, this was where Base personnel came to have their prescriptions filled.

E9. Ophthalmology

This was the Base's eye clinic. Specialized examinations were performed here along with other routine services connected with vision. This was also the pick-up point for glasses and contact lenses produced by the labs in Support.

E10. Dental Clinic

Prime Base had limited need for such so this facility was small. Nevertheless, while it looked like a normal dentist's office, this clinic could handle all routine dental chores up to and including oral surgery and the production of dentures.

E11. Kitchen

Most of the hospital's meal needs were handled by Food Services with trays being sent down from the first Level. But for patients requiring special diets, a small hospital kitchen was a must. This kitchen served that need and no other. It did not cook for the staff nor serve the dining room (E16).

E12. Blood Bank

Only a limited supply of whole blood and plasma was stored here; enough to meet the immediate needs of the hospital. A larger store was kept in Support.

E13. Electrocardiogram (EKG)

The electrocardiogram room housed more than just EKG type equipment. All of the hospital's patient oriented electronic gear was kept (and as much as possible used) here. All of the gear was advanced and very reliable.

E14. Radiology

Since prolonged or repeated exposure to radiation can be harmful, the equipment here was in an area separate from all others. The emphasis here was still on patient care so there is nothing more exotic than X-ray machinery, CAT scan equipment and the like.

E15. Dining Room

The dining room also served as a visitor's lounge as there was hardly ever a large crowd of people eating here. Normally even hospital personnel could leave the place for meals, but for those who had to stay close (for whatever reasons), there was the dining room. The food served here came from Food Service above or was "brown bagged" in by the staff.

Additional Notes On The Hospital

Staff stations performed all of the functions that nursing stations do in a conventional hospital and a few more. The most important pat-t of these other jobs was the switching center for the local phone system.

Every area (with the exception of latrines, closets, and the like) had its own phone. Many of these were arranged so as not to ring or make noise. Instead a flashing light was used to indicate an incoming call.

PLAY OF THE GAME: LIFE CYLINDER, LEVEL 10, THE HOSPITAL

The hospital, unlike most of the other areas in the Life Cylinder shows a lot of the debris of the activity of the final days of Prime Base. The hospital was, after all, where the last battle was fought against the plague that overwhelmed the Base.

All of the hospital was served by the emergency power grid. Some of it, the corridors and the Trans Core, were on the automatic system where light was supplied. But all of the rest of the facility was on either the Conditional or Command hook ups. Hospitals are emergency facilities in anybody's book.

Few of the doors in the hospital are locked. More might have been and would have been, if the hospital had been operating normally. As it was, many areas were left open because there was too little time to fiddle around with locks.

The descriptions that follow are divided by area in the same manner as the text regarding the hospital. They are designed to be used with those descriptions and with the map as necessary.

A. The Emergency Area

Nothing in the emergency area is locked up. All of the rooms in it are equipped with the heat sensitive switches that will turn light and power on automatically seconds after a person enters the room. Override switches in this area will work, and convert the areas they serve into Command served EPG areas.

B. Critical Care Center

All of the Critical Care Center is already operating under the Command system. None of the lights or power will be on when the team enters because everything was switched off before the end. None of the doors or supply lockers are locked.

Everything in Critical Care shows signs of frantic activity: there are gurneys in the corridors, empty shelves, full laundry hampers, evidence of all manner of medical equipment having been used without proper regard for maintenance or clean up. Supply areas are obviously depleted, both linen and medical. The gowning, scrub, sterile and clean up areas all show massive use, where some are too empty of gear (gowning and scrub) and others are too full of equipment waiting for attention (sterile and clean up).

Both B10 and B11, ICU and Isolation, are still occupied. Some Base personnel contracted the plague and volunteered to "ride it out" in the hope that the medical types, with infected people to work on and study, might find a cure. Those people, some of them, are still here. They should all be in isolation, but there wasn't enough room. The observation rooms that look in on both areas contain a couple of the medical staffers: people who did not leave the patients who were depending on them.

C. Forensics

150+ years after the event, this area of the hospital is still a scene out of nightmare. Simply stated, there was no way in which this small facility could handle the demand placed on it. The morgue is, of course, full to overflowing. So also are the autopsy facilities. Most of the victims who are in this area are early victims of the plague. After the early stages, when "demand" picked up, this small area could not deal with the volume. Work continued to go on here as medical types tried to find answers. The overflow of this area went to Support (see that section for details).

Mercifully, someone thought to lock up this area before they pulled out. The Team will not have to suffer the view without breaking the lock. This area, unlike any other in the Base or the hospital, is still plainly labelled with *Forensics* in large letters on the door. Below this sign, some wit managed to scrawl: *Abandon all hope ye who...* with a marker of some sort.

D. The Ward Hospital

The wards of the hospital and their associated areas are not as obviously involved in the struggle with the plague, save in one area. This is the infant care section. The very young, and there were a few when the bio entered the Base, succumbed to the effects of the plague more quickly than did the adults. None of the bodies remain, but there is every sign of feverish activity.

For the rest, the wards of the hospital are empty of patients. There is sign that linen and other supplies from the wards were moved elsewhere without ceremony (to C3 as it happens), but the ward area itself seems to be untouched by the activity that made so much of the rest of the Base a shambles toward the end.

The plague was not quick to kill, but it was fast enough that there was no point in putting victims in the wards; once the plague was recognized for what it was. There had been victims in the wards, but these were moved when they expired and they were not replaced.

E. Administration and General Practice

This area of the hospital shows heavy use but not in all sections. Those areas that show the most activity are Records, Administration and the Director's Office, and the library section of the Conference

Room. These places were worked heavily in support of the efforts to find a cure.

All of the rooms in E are on the Command version of the EPG. None of the rooms are locked,

General Notes on Play Of The Game and the Hospital

The hospital should, if nothing else has, give the players the idea that something of a medical nature went badly wrong in the Base. There may be human remains in sections of the hospital other than those we've mentioned, that's up to the PD.

Closely associated with the efforts of the hospital were those going on in the Labs of Support. The bio war facility there was working closely with the hospital. There might be some documentation, notebooks or something hinting at this.

In the library section of the conference room, there is a complete record of the plague and the medical teams' efforts to combat it. It details the history of it, its speed of effect, what was tried on each individual who contracted it and the lab results, speculations and anything else the staff felt might be useful for people trying to fight it to know. This record is in a simple blue notebook on one of the shelves of the library with a typed label reading Plague on the cover.

LIFE CYLINDER: LEVELS 11,12 AND 13, SECONDARY RESIDENTIAL

These Levels will be treated as a group because they are identical with some of the residential Levels found further up in the Cylinder. Level 11 is the same as Level 3, 12 is the same as 2 and 13 corresponds to Level 1 including all food service facilities.

These three residential Levels were dormant and uninhabited. The food service center of Level 13 was not used. These Levels were intended to meet the expansion in personnel that was anticipated when the Base was "opened up" after the War.

Residential Capacity Of The Base

Two broad classes of Base personnel were recognized: actives - adults with jobs essential to the mission of the Base, and dependents - children of Base personnel. The First Level (and the 13th if and when it was activated) was devoted solely to mission or active personnel. This Level could therefore accomodate 98 actives, 12 living in singles and 86 doubled up in 43 units of double rooms.

Levels 2, 3 and 4 were designated as family housing. It was assumed that dependents would be present here. Families with dependents would be assigned two or three bedroom apartments. The optimal plan called for one dependent per bedroom, but the units were designed to accomodate two comfortably. (And of course, the planners had no control over how large families would be. There were units with more than the "maximum" number of people living in them, others with fewer than the "optimal" number.)

Level 2 had 122-bedroom and 15 3-bedroom units. This allowed for 24 actives and 12-24 dependents in the 2-bedroom units, 30 actives and 30-60 dependents in the 3-bedroom units. The capacity of the floor was thus 54 actives and 42-84 dependents.

Level 3 had 23 3-bedroom units. This worked out to 46 actives and 46-92 dependents on the Level.

Level 4 had 19 2-bedroom units and 7 1-bedroom units. The 7 single bedroom units were intended for married couples without children, yielding 14 actives. The 19 2-bedroom units allowed for 38 actives and 19-38 dependents.

Figures for the dormant Levels (11-13) can be surmised from the numbers of the corresponding Levels above.

Base Personnel Capacity

From the numbers given above it is possible to arrive at a figure for the total number of personnel the Base was intended to accomodate. The four residential Levels actually in use had space for 250 active and between 107 (optimal) and 214 (maximum)

dependents. The grand total for the four Levels comes out to either 357 (optimal) or 464 (maximum).

The three dormant Levels were nearly as large. There was room there for 198 actives and between 88 (optimal) and 176 (maximum) dependents for a total of 286 to 374 personnel of both classes.

Total Base capacity works out to 448 actives, and between 195 to 390 dependents. The maximum capacity of both classes is thus 838.

In point of fact, the lower or dormant residential Levels were never used. The Base entered the War with 247 active and 160 dependents. There were 407 people living in Prime Base when the War began.

PLAY OF THE GAME: LIFE CYLINDER, LEVELS 11,12 AND 13

Since these Levels of the Base were never used, they are, even now, in pristine condition. None of the doors on any of these Levels is locked. There are no personal possessions in any of the residences, no bodies in any of the areas. Nor is there any food or anything else useful to the Team. This is also true for the Food Service section of Level 13.

The EPG delivered power only to the Trans Core and the Corridors on these Levels and not to the Food Service Section. Everything in the Food Service Section is brand new and has never been used (other than for brief tests just after installation).

Once power, water and the like are restored, this might be an ideal place for the Team to set up housekeeping. It gets around some of the psychological problems of "ghosts." If the Phoenix Team is found and activated, they will certainly remove to Level 13 of Life until they leave the Base.



SUPPORT CYLINDER: GENERAL

The third in the triad of cylinders which made up the bulk of Prime Base, the Support Cylinder, is the complement to Operations and Life. Where the Life Cylinder was the community and the center for human services, and the Ops Cylinder the mission operations center, Support is the housekeeping and stores unit that makes the other two possible. While not at all glamorous, Support is as essential to the Base as any other part.

Most of the functions of support fall into one of two categories. The first of these is Services. Support houses functions which keep the rest of the Base in operation or which directly aid in the missions of the other areas. This is the utility center of the Base. Heat, light, power, air, water, waste and sewage treatment and disposal, all begin and end here. Farming, laboratories, workshops, even a motorpool for internal Base vehicles are located here.

The second category of Support is Stores: stocks and supplies. Much of the cylinder is given over to what amounts to warehouse space.

But in both categories the focus of operations was on providing for the needs of the rest of the Base and hence the name of the cylinder: Support. The cylinder supported the activities of the rest of the Base.

It is important to keep this in mind. The facilities found in Support are mostly Base oriented and not directed towards the Project as a whole. Some areas do have dual missions, but where this is the case, the support of the Base takes precedence over the other, Project related functions.

This is equally true of the supplies kept here. The overwhelming majority were intended for the use/consumption of the Base. Very little will be found that was intended for broader Project applications.

Also worthy of note is the non-standard nature of the Transportation Core (or trans core) found in the Support Cylinder. The stairs, freight elevator and passenger elevators on the west side of the core are all present but the passenger elevators on the east side of the core are missing. In their place is a ramp some 15+ feet wide making the trans core of the Support Cylinder wider than that in either of the other cylinders.

The ramp replaces the elevators for the sake of utility within the cylinder. A lot in the way of supplies would be routinely moved around within Support; far too much to be handled by elevators. Ramps allowed for the movement of loads on wheels between Levels.

The ramps were set one above the other, one per Level. To go down to the Level below one went to the north end of the Trans Core and took the ramp there down. To go up a level, one went to the south end and took the ramp up. On Level 1 it was only possible to go down. On Level 13 it was only possible to go up.

Descriptions of the Support Cylinder will not be as detailed as those for the other cylinders. Most of Support is composed of supply and housekeeping facilities which do not need much explanation.

SUPPORT CYLINDER, LEVEL 1: FARMING

The personnel of Prime Base had to eat. While it was theoretically possible to store enough food to feed the Base for the duration of the "closed" period of its mission, this would have called for

a much larger base just to house the stores. Growing a certain amount of the Base's food seemed the better choice.

Growing food had other beneficial effects. Air purification becomes much less a problem when there is a healthy plant cycle to aid the process. Waste matter from plants, leaves, roots, stalks or whatever parts of the plant are not used, often have uses in other areas. If nothing else, they can be mulched and used again as fertilizer. There are also crops which can be grown for purposes other than consumption as food. Medicinal plants are an example of this.

For all of these reasons, a farm was included in the design of the Base. It was an unconventional farm being wholly below ground level and totally without natural light. As a result there were not too many things which could be grown on it. However, it enjoyed some advantages over a conventional farm: for example, in growing seasons. Prime Base's farm never closed *down* for the winter, was not effected by drought or other natural calamities. It could (and did) operate year round and it produced 4 or 5 crops a year.

What could not be grown by the farm was supplied from stores. Still, a surprising variety of crops could be grown by the farm, thus limiting what had to be stored.

Farming was conducted on both Levels 1 and 2 of the Support Cylinder. While divided between two levels, farm operations on both were known collectively as "the Farm".

A. THE FARM

Prime Base's farm practiced soilless agriculture, more popularly known as hydroponics. In hydroponics plants are not grown in the ground or in earth at all. Instead, crops are raised floating in a nutrient solution (mostly water) in table tanks. Table tanks are long, broad, waist high tables having a tank in them in place of the tabletop. The tank holds the nutrient medium the plants are grown in.

The growing areas of the farm held hundreds of tank tables arranged in rows across the floor. Each tank table generally held only one type of crop but with so many tables many crops could be grown at once.

Above the rows of tables were arrayed banks of special lights. These lights simulated the sunlight which was essential for the maturation of the plants. The intensity of the lighting could be tuned for the greatest benefit to the crops being grown below it.

A1. Farm Administration

This is an office area for the administration of the farm. Records were kept here, not only of what the farm produced, but of how much it used, what percentage of the crops were disposed of as planned, the status of seed and other, farm related, supply inventories; i.e., all of the records needed by any well run farm.

This was also where the planning of future farm operations took place. Generally this took the form of what crops would be needed and in what amounts, and which tables would then be devoted to the crops chosen.

Admin also coordinated the delivery of produce to places like Food Services and the Commissary.

All in all it was a very busy office.

A2. Farm Stores

The farm did not need a lot in the way of bulk supplies kept on hand. Most of what it needed could be hauled up from other areas of Support in fairly short time. What was kept in this area

were "ready" stores: things which were needed routinely or might be needed in a hurry.

The stocks kept in A2 were mostly tools, chemicals and seeds. The tools and equipment needed by this kind of farm are minimal but nevertheless essential. Chemicals were primarily nutrients, mostly nitrogen concentrates. Seeds were minimal as most hydroponics farming is carried out with plant cuttings, not seeds.

A3. Farm Stores

This smaller room held other ready stores, in this case lighting replacements. Both lights and complete fixtures were kept here so that any malfunction in lighting (and consequent interruption in the growing cycle) could be remedied with minimal delay.

A4. Cleaning, Sterilization and Maintenance

The farm had to be kept clean and supplies and equipment for doing so were kept here. More importantly, the tanks in which the crops were grown needed to be cleaned periodically, sometimes sterilized and occasionally repaired. This is where all of these things were done. Practically all of the farm's tools, equipment, fixtures and other gear was maintained here.

PLAY OF THE GAME:

Level One in Support was the upper story of the Base's farm. The text concerning the Grand Deception has already devoted some time to the attention paid to concealing the Trans Core and the ramp located here, but we encourage the PD to refer to the map of this Level now and note for himself how uncomplicated this task was. Here, as on Level 13 of this Cylinder, there is only "one" ramp to consider, and this was already enclosed on three sides before the deception went into effect. Constructing a false wall to close off the fourth side did not strain the resources of the Base.

The ramp may well go undetected by the players unless the PD employs one or more of the suggestions noted in the Grand Deception for making discovery easier. There is, after all, only one section of wall that will reveal the ramp and, as a percentage of the total area comprising the wall of the Trans Core, this section is not very large.

Otherwise, the evidence of this Level is much like that of the other two; there is every indication of a rapid departure that put more emphasis on speed than anything else. Doors are not locked and debris is common.

The air plant might interest some players, those who have been asking: "Where is the machinery to support this environment?" The air plant answers that question, but only if it is not looked over too carefully or by people who know something about what's necessary to actually provide for the needs of a complex like the Base. However, to the casual observer, this facility might be mistaken for more than it is.

The farm is a mess. The last crop has rotted in place. It seems that no effort was made to harvest or even close down operations before the Base was "abandoned". There are still farm supplies in some of the storage areas, but it is obvious that these are depleted stocks: none of the racks are full.

It does not seem as though much was taken from this level for the "exodus" from the Base, but then, other than sacks of turnips, the casual observer will be able to think of little that should be missing from here.

SUPPORT CYLINDER, LEVEL 2: FARM, DISTILLERY/BREWERY

The farm on this Level is identical in function with the farm on Level 1 above although the layout and details differ. Also present here is a modest livestock area and a brewing/distilling complex.

A. THE FARM

The actual farming area is smaller than the farm on the Level above but the same procedures and equipment are used. This Level produced more in the way of grain products than did the Level above due primarily to the proximity of the distillation/brewing center.

A1. Farm Stores

This area corresponds to areas A2 and A3 on Level 1. The same things were stored here as were stored there.

A2. Cleaning, Sterilization and Maintenance

This was just like A4 on Level 1 above.

A3. Livestock

Prime Base did not have room for herds of animals. While meat was never in short supply to Base personnel, it was not as available as it was to people on the "outside". Most of Prime Base's meat was preserved, either canned or frozen. Very little of it was fresh.

But some was, though this was a by-product rather than a pursued goal. Some farm animals were kept at the Base for purposes other than meat production. These animals were kept here. They consisted of a small number of milk cows (a dozen or so) kept here for the dairy products they could provide.

There were also a larger number of chickens. Like the cattle, the chickens were not kept for meat, instead they were kept for their eggs. Unlike the cattle, since chickens reproduce and mature more quickly, they sometimes appeared on the tables of Prime Base.

A3 is an area devoted to the care, feeding and use of these animals. Feed was stored here (produced by the farm), as well as means of cleaning. A3 was kept meticulously clean at all times. (But no effort was enough to keep the area from having a musky odor.)

B. DISTILLATION AND BREWING CENTER

Distillation and brewing are generally thought of solely in connection with the production of alcoholic beverages. In reality, both processes have other applications. This center served several purposes.

B1. Distillery/Brewery

This room contained all of the apparatus needed for distillation and brewing. There were two distillation setups. One of these was used exclusively for processes whose end product might become part of the Base's food chain (such as the manufacture of spirits or distilled water). The other was used for chemical distillations of other kinds such as the production of medicinal alcohol, etc.

The brewing apparatus was not so versatile. While parts of it were instrumental in the pasteurization of the Base's milk, mostly it just made beer and ale.

The alcoholic products of the center are of some interest because of their variety. The distillery was able to produce ersatz versions of gin, bourbon, whiskey and something that was almost as good as single malt scotch. Brandy, because of the scarcity of grapes, was out of the question. The brewery turned out beers and ales at all levels of lethality. Everything from "light" beers to stouts and bocks were produced.

The quality of these products was superb. The operation of this complex was not some backwoods, moon shining enterprise built to make a quick buck. The people who made this stuff took time and care to blend skill with art and consequently delivered some very fine potables indeed.

B2. Aging

This room had more to do with the drinkables produced next door than it did with the other things made there though some of those came to rest here too. Most alcoholic beverages benefit from a period of just sitting around. This room was devoted to giving those beverages that opportunity.

Incongruous as it might seem in the steel and concrete of Prime Base, this room was filled mostly with wood, Casks, kegs and barrels, all made of wood, line the walls and cover much of the floor. All were filled with some potable or other. (Chemicals and other, non-drinkable spawn of the distillery/brewery were invariably kept in metal, glass or plastic containers and their contents were clearly marked.) The lighting here was also kept low so as not to cause eye strain on the denizens...

B3. Ready Stores

When products of the distillery/brewery were deemed ready for use, they were kept here whether drinkable or not,

SUPPORT CYLINDER, LEVEL 3: LABORATORIES AND RESEARCH

All of the activities of this Level concern themselves with research, testing and analysis. While there are a couple of examples of limited production facilities on this level, production or other "hands on" work is more properly the province of the shops and related centers on Level 4.

It is useful to think of the two levels (3 & 4) as being two halves of a whole. It was often the case that theory was worked out on Level 3 while implementation came from work done on Level 4. The best analogy might be this: plans and blueprints were conceived on Level 3, actual building was conducted on Level 4.

Most of what the labs do is directly related to the activities of the Base as a whole. There are/were some areas of effort that were more concerned with the outside world and the mission of the Project, but these were less numerous.

Level 3 is divided into three areas, each of which was devoted to a specific field of research. The three areas are Biology (Bio), Chemistry (Chem), and Physics. Bio and Chem were the same size, Physics was the size of the other two put together.

A. BIOLOGY

The Bio labs of the Base pursued three areas of investigation. The largest of these was medical and served the needs of the Base hospital primarily and other concerns secondarily. The other two areas were of almost equal size. These were Bio War Research and Agricultural Research and Testing.

A1. Admin

This room is an office and serves the administrative needs of the bio section. Its main function was to serve as the phone/commo switching area for the section, but it also housed records and operated as a clearing house and organizational center for the bio section.

A2. Hospital Support labs

A majority of the medical tests required by the Base hospital were conducted here rather than at the hospital itself. This area is divided into many smaller, specialized facilities, all dedicated to supporting the needs of the hospital. These smaller areas are not noted on the map as they are not structural; the walls and partitions are moveable and were moved as needed/desired.

Most of what was done here is routine testing and analysis. Blood tests, urinalysis, and related procedures could be conducted here more efficiently than in the hospital.

The labs could also handle "crash priority" samples from outside of the Base, but in the event, this only came up one time. The lab was not designed to make a business of that sort of problem.

A3. Bio Research and Testing

This is a pure research area devoted to expanding the horizons of medical knowledge. It was from Morrow facilities of this nature (though not this one specifically) that items like the Project's universal antidote originally came. Personnel working here concentrated on similar, basic health hazards, cancer research, the isolation and identification of viruses, etc.

A4. Botanical Support

As the labs in A2 above supported the hospital, these labs support the agricultural areas of the Base, farming in particular. Research and testing was directly related to problems that the Base's farms were having, or to improvements in farming techniques. The work generally broke down into two broad areas: eradication of botanical diseases and blights, and development of more efficient plants, hybrids and/or agricultural techniques.

This area had rows of tanks with special lights, seed and plant storage racks, and refrigerators for keeping samples.

A5. Botanical Research and Testing

The people who worked in this area were few, but more were envisioned when the Base was "opened". The purpose of this facility was to assess the damage that the War had done to botanical life and to correct the damage.

This was, of course, patently impossible but the facility was to make as much of a dent in the problem as possible. With this

in mind, the facility was as much a center of plans and projections as it was of research and testing. A great deal of the emphasis of this section was on forestry.

A6. Stores

Bulk stores for the activities of the Bio Center were kept in other areas, but a certain amount of ready stores and equipment were kept here. This room provided for the needs of all of the sub-areas of the Bio Center.

A7. Bio Warfare Testing and Research

Understand from the outset that it was never the purpose of this facility to develop or produce biological weapons! The mission of this sub-area was to identify, isolate and find means of nullifying bio weapons and their effects.

Like the Botanical R&T sub-area (A5 above), this facility was expected to be most active only after the Base opened. As it was, there was always some activity here, for much was known even before the War of what kind of horrors were lurking in bio arsenals. Personnel of this area were engaged in devising means to counter known agents, and doing what they could to isolate and identify new ones.

It was always planned that specimens, either confirmed or suspected, might have to be brought here. While these would arrive only in small amounts and in sealed containers, accidents were possible and greatly feared. This leads to some novel security arrangements for this sub-area.

Note on the map the two smallish rooms leading into the area. Both of these had armored doors. The two rooms were in fact airlocks. In the normal course of events these doors always remained open, but in the event of an accident, or even the suspicion of an accident, these doors closed automatically (they were slaved to an elaborate and sensitive detection/alarm system). Once closed by an alarm they could only be opened manually from the outside of each, or electronically (including an override) from the admin room. Each of these airlock type rooms had a phone on its wall so that people accidentally trapped within could let others know where they were, scream for help, etc.

The small room just beyond the airlocks but within the sub-area was a remote monitoring and control center. The doors could be closed but not opened from here. All of the other doors in this area could be closed and opened from here. A wealth of video and other monitoring equipment allowed watch standers in this room to keep tabs on events in the rest of the sub-area.

The two long rooms beyond the monitoring post were both labs where the actual work of the area was done.

The last, small room beyond the latrines was a specimen storage area. Bio's being the kind of nightmare they are, it was rarely possible to keep a petri dish of the hazard for tests since most bio's only thrive when in contact with a host. Thus the storage area was fitted out to hold racks of small cages, all isolated from one another. The door to the storage area could be opened by anyone with the electronic code. The door to the storage area could be closed by anyone but it could only be opened by electronic command from the monitoring station. (it wouldn't do for a lab rat with virulent anthrax to get loose in the Base!)

In point of fact, these elaborate precautions were never necessary. False alarms which sealed off this sub-area were common, due to intentionally high sensitivity of the automatic monitoring equipment. A bio weapon did wipe out the personnel of the Base, but that was not the fault of this unit or its researchers.

B. CHEMICAL RESEARCH

The Chem complex, like the Bio area, had three sub-facilities. The first was chemical analysis, production and stores; the second, chemical assaying; the third, chemical warfare research. It's worth pointing out that the Chem area is very nearly the mirror image of the Bio area in terms of layout.

B1. Admin

This room filled exactly the same functions as its counterpart in Bio: it just did them for Chem.

B2. Chemical Analysis

This was both a pure and applied research center for analyzing chemical composition. The purpose of this sub-area was, on the applied level, to answer questions about what something was made of. If somebody brought something in and asked "What's this stuff?" the people here were supposed to be able to find and answer.

The speculative side of this sub-area's mission was to provide answers to questions like: "We need some stuff to do X. What will it have to be?" Nothing was actually made in production quantities here, but a lot of raw materials passed through the lab.

B3. Chemical Production

When chemical compounds needed to be produced, or experimented with in any quantity, this is the place where the deed was done. The mission here was wholly applied, hands-on type work. If the boys over in analysis dreamt up a new, more powerful explosive compound and production was to be undertaken, it would be done here.

B4. Chemical Assaying

This is really a specialized version of chemical analysis. The facility here was primarily interested in two things: traditional assaying of mineral samples for metallic or other content, and analysis of any sample for radioactivity or changes wrought by radiation, blast, etc. This sub-area was all but dormant during the operation of the Base but would have become a hotbed of activity once the active phase of the Base began.

Specialized equipment including isotope counters, mass spectrometers and the like were kept here but were available to other sections as needed.

B5. Stores

This storage area is much like the one in Bio, save that the contents of this one were related to chemical work rather than biological.

B6. Chemical Warfare Research

This area and its personnel were in no way concerned with the creation of chemical weapons, only in their counteraction. In this the center was just like the Bio war center, the mission was to identify, isolate and get rid of the hazard.

The center was laid out exactly as the Bio center was, so not as much will be said in description. What follows is a brief rundown on differences between the two sub-areas.

First, the Chem war center was never used. If it had, though, the airtight doors to it would have been kept sealed at all times during which operations were taking place. Personnel here would necessarily have worked in complete sterile suits when dealing with unknown compounds of a suspicious nature. Nor would there be large numbers of cages for holding infected specimens. The only lab animals needed here were ones that would be the subject of tests determining lethality. There might be a steady stream of these, but no need for long term holding or observation facilities.

General Notes On Areas A and B

Not much has been said about the equipment found in either of these two areas. This is because most of it is common to the two and much of it is still in boxes.

As far as common items go, there is a wealth of small laboratory and electronic equipment. Examples include, but are not limited to, microscopes of varying power (including electron microscopes for each area), autoclaves, high intensity lights, ultraviolet gear, telephones and links to the main computer, microcomputers, printers, centrifuges, balances, glassware, lab stands, etc., etc. Both the Chem and Bio areas had refrigerators to store samples in as well as ovens for heating samples.

And, like most other areas of the Base, neither of the two areas saw much in the way of constant activity due to the shortage of personnel in the Base. Some people were working here for much of their time, but these people were few, all knew one another and had a real hard time getting in one another's way. The less than a dozen people who were primary workers in each area did not specialize much. When the fellow working on problem

X in Chem Analysis needed to check something out in the way of production or testing, he'd trot over to Chem Production himself and do what was necessary on his own or with assistance. There was no jealousy of area and people did what was needed to get the job done.

C. PHYSICS RESEARCH

As mentioned above, the Physics area is twice as large as either the Bio or Chem areas and it covers a lot of different kinds of research. As with the Bio and Chem areas, the purpose of the Physics area is to support the operations of Prime Base.

The sub-areas include a Radiation Lab, Laser/Energy Research, Ballistics, Seismology, Electronics and Optics. Each of these areas were basically large, open spaces where either workbenches or large test equipment could be set up according to the needs of the moment.

C1. Admin

As in the other areas on this level, the Physics area had an Admin office to serve as a telephone/information switching center and to keep the necessary records and act as the organizational center for the section.

C2. Radiation Lab

The Radiation Lab creates and handles the various isotopes used in a variety of other areas including Bio, Chem and Energy research. It has the facilities to create, store and handle materials which vary from mildly radioactive to highly lethal.

In addition, such routine tests as Carbon-14 dating, radioactive trace analysis, water and air pollution caused by radioactive sources and fallout are all done here. More speculative research involving nuclear dampers and countermeasures was also pursued in the slim hope of finding something which would help overcome the effects of large doses of radiation on the environment.

The single most important piece of equipment in this sub-area is the cyclotron which is used for both particle research and the creation of isotopes. This one is quite small, having a diameter of 3 meters.

This lab was always under strict security to avoid unpleasant accidents. Since most of the work done involved low energy levels and sealed containers there was little risk of contamination of other areas, but the Director of Prime Base still insisted on extreme care in the handling of all radioactive materials.

All workers in the lab were required to wear radioactive protection suits for any work involving isotopes which were more than casually radioactive. In addition, each worker wore a dosimeter to detect radiation exposure. If anyone showed anything close to a dangerous level of exposure, they were immediately relieved of duty and forbidden to enter the Radiation Lab.

As a final precaution, the Lab could be sealed off in emergencies. As with the Bio and Chem areas, there were sensors to automatically do so and controls to both close and open the Lab in the Admin section.

C3. Laser/Energy Research

This sub-area and the Electronics sub-area were the two largest separate areas on this Level. In the case of Laser/Energy research, the size of the equipment and the importance of the work were responsible for this.

There were a variety of uses the Project made of lasers. These ranged from communications links and fusion research to military uses of laser weapons and medical uses where fine surgery was required.

Energy research predictably revolved around fusion power but there were other areas of research including geothermal power, solar power, and power storage. As such this sub-area often looked something like Dr. Frankenstein's lab with pieces of high-tech fusion gizmos side-by-side with windmills, panels of lights and receptors, steam boilers and temperature sensitive plastics, ceramics and other odd materials. When laser experiments were underway, the whole area would be lit with monochromatic light for the duration of the experiment.

The precautions taken here were somewhat less stringent than

in the Radiation Lab. The biggest concern was the use of lasers and laser light which could blind or harm someone who stumbled into it. The laser testing area was a long corridor down the left-hand wall upon entering the room. Normal procedure was to lock the door to the sub-area during laser experiments in order to prevent someone from accidentally being blinded upon entering the room. With the exception of fusion research, none of the energy research was likely to be too dangerous. Normal lab precautions were all that was necessary.

Since a fusion reaction to produce power is a much more controlled process than fusion explosions or fission reactions, there was no danger of runaway reactions. However, due to the high energies involved, the rest of the sub-area would cease operation during fusion experiments. During these periods, only those people directly involved in the work would be present and, as with the laser experiments, the door would be locked to prevent unwanted intrusions.

Note that this lab was not involved in dealing with problems with Project power packs. Such technical problems were dealt with in the engineering section on the level below. The only time such a problem would be directed to this sub-area was when it was something out of the ordinary and was beyond a normal engineer's ability to cope. However, as with the rest of the Base, there was much coming and going between areas and many of the people who worked in fusion research also worked in the engineering section below so it would take something really unexpected to make it out of engineering.

c. Ballistics

This sub-area covered two different areas: weapons ballistics and aerospace ballistics.

The weapons ballistics sub-area was used primarily in testing and evaluating weapons. It had the usual high speed cameras, carefully controlled "shooting ranges" and microscopes to evaluate the performance of different weapons and rounds.

The aerospace ballistics sub-area was more involved. It dealt with the problem of putting a satellite or other space vehicle up into orbit and keeping it there. Most of its work was theoretical and involved a lot of computer time. However, some testing of the materials used to build such craft went on here away from the shooting range.

As with other dangerous experiments, this sub-area is closed to outsiders during weapons' tests.

C5. seismology

This sub-area has the readouts from the seismic sensors placed on the bedrock at the lowest level. These readouts give information about any and all disturbances of the earth's crust including (but not limited to), earthquakes, nuclear explosions, and the passage of vehicles near to the Base.

Tremors are drawn on paper on rotating drums with carefully marked time signals to determine when a tremor appeared. A roll of paper was used every 24 hours after which the roll was removed and stored in a rack in the subarea and a new roll was put in place. In addition, the information was fed directly into a computer and stored electronically for computer analysis and display.

There are no particular security measures for this sub-area.

C6. Electronics

This sub-area was where the experimental electronics research went on which developed a number of the Project's and Prime Base's electronic gizmos. In particular, the Base's computer network was developed and tested here for use when the Base was opened and information came pouring in.

The work done here also supported several of the other research labs. Anytime someone needed a design for a sensor, tester, electronic linkup to the Base computer or a microcomputer, they would come to this sub-area. As a result there was a lot of traffic between the electronics lab and the other labs on this floor.

The sub-area has a number of workbenches, rows of parts' bins holding everything from resistors and capacitors to complex integrated circuits and a small library of reference books (about

twenty or thirty books). There are spools of different types and weights of wire (some of which were never unpacked) along with crates containing wire-wrap machines, printed circuit board design and layout tools, and everything you would need to design and build prototypes of your own semiconductor parts. Note that production of finished designs was not done here. Anything which was needed in any kind of quantity was produced on the level below.

There were no particular security precautions in this sub-area.

C7. Optics

This sub-area was responsible for any and all work in optics. They could and did work on everything from electron microscopes to telescopes for tracking satellites. They also had tools for working with fiber optics used in high-speed communications. The "wiring" of the Optical Computer took place here.

The sub-area has equipment for precision grinding of lenses along with equipment to test the quality of a lens. There is also equipment for pouring glass to particular forms. It is no exaggeration to say that in a pinch they could create all of the optics needed for the Project as well as producing a set of fine crystal wine glasses given time.

Because of the limits on space in the Base and the difficulties in setting up large scale production facilities, all optical production took place here. However it was not expected that production needs would ever be too great. The sub-area was never expected to, say, produce replacement optics for all of the missile launchers in the Project. It was expected to be able to produce optics for satellite tracking stations if and when it became necessary.

There are limited security arrangements to prevent someone walking in when molten glass was being worked. These are limited to a lock on the door and a sign saying "KEEP OUT!"

Notes On Level 3

Just as the Morrow Project could not do everything necessary, the labs on this level could not replace the lost resources of the pre-War scientific community. However, an attempt was made to make the expertise and abilities of the researchers as broad and wide-ranging as feasible and to provide them with the most useful and complete labs possible given the limited space within the Base.

Few if any of the experts in Prime Base were the best in their fields. But they were more capable in several fields than a typical "specialist" was. It was not unusual to see one of the biologists working in the radiation lab along side the "experts" or an electronics technician cutting a specimen in the bio lab. Most of the people in Prime Base were multi-talented in this manner.

Likewise, though the labs could not do everything, they constituted a workshop for the scientific jack-of-all-trades. And while their main purpose was to support Prime Base in whatever manner necessary, they also preserved equipment which might be impossible to find after the War.

150 years after the War, the labs and shops of Prime Base are even more valuable. But like most of the rest of the Base, they will only be useful after they become operational again. This will take some time and the 150 years of decay the equipment has suffered will not make things easier. Most of the equipment will simply fail to work. Some of it will be actively dangerous. Players who wander around pushing buttons to "see what happens" will be in for some rude surprises.

Play-testing has shown that players, used to the carefully stored equipment they had when they woke up, will expect all of the goodies in Prime Base to function perfectly. There were no nitrogen storage atmospheres here, equipment was not stored in grease or cosmoline, and the integrity of the Base itself has been breached. Rats have filtered in and chewed on cables, mold has grown on anything and everything, rust has formed on many surfaces and dust lies several inches deep in places. Under these conditions, it is not surprising that the equipment in the labs does not work as planned. What is surprising is that it is in as good condition as it is.

Probably the most valuable use for the equipment in the labs is as prototypes for building new versions of the same things. Things like the cyclotron, some of the laser equipment and seismic instruments are probably the only examples of these pieces of equipment still in existence. Of course the equipment alone is of little use without the knowledge needed to understand what it is doing and how it is doing it. Such information exists in the Base library, but with the scramble of the records caused by the Final Deception, it will be some time before the labs are back at a full functioning level.

SUPPORT CYLINDER LEVEL 4: SHOPS AND ENGINEERING

This level is taken up with the machinery and equipment necessary to build or repair whatever was needed to keep the Base operating or to build what the scientists on the floor above came up with. In addition, the Base heliport takes up the southeast quarter of this level.

A. Shops

These shops have the equipment necessary to build, from scratch, anything of a reasonable size. There is not enough room to build anything as large or complex as a jet aircraft, but a bicycle or a haywagon would be no problem and they could build such things as heavy-duty winches, cranes, or possibly a tractor.

The shops are here to keep Prime Base running. They could do everything from drawing wire to creating replacement parts for the plumbing. But they could and did also build whatever the research labs on the level above or the engineering labs on this level needed.

A1. Admin

This office was used to keep track of requests to the shops along with keeping track of supplies, people and other resources needed in the shops.

The door facing out towards the elevator was a split door which usually had the top half open so that someone coming down from another level could place a request with the person on duty in the office. Requests could also be made over the telephone or the Base computer system, but some things needed a signature before the office would accept them.

A2. Woodworking Shop

This shop had the equipment used in woodworking and a certain amount of storage for wood. Large pieces of wood or seldom used woods were kept in the storage levels below.

The tools available in this shop included a variety of power tools such as a lathe, table saw, router, etc., but hand tools were also available. If a member of the Base personnel had been cleared by the shop supervisor, he or she could come to the woodshop when it was not in use and use the tools for recreational purposes.

Sawdust and wood scraps often were given to the materials sub-area where they could be used to make pressboard or other things.

A3. Machine Shop

This sub-area was primarily a metal shop. There were metal lathes, band saws, metal bending machines and such like along with a variety of heavy duty wrenches, drills, tap and die sets, etc., etc. There is also a welding area where both gas and heli-arc welding takes place.

As in the woodworking sub-area, there was room for a variety of kinds and sizes of stock but anything too large or unusual would have to come up from the supply levels below.

A4. Forge Room

This is an electrical forge capable of forging several different kinds of metals. It can be used to forge bronze, brass and iron at different settings. However, to change from one metal to another takes at least two days preparation time as a variety of parts and guides have to be changed.

The forge area can be closed off from the rest of the shop during a pour by way of a sliding door. While a pour is taking place, access to the room is strictly controlled and safety precautions are enforced.

This forge is not large enough to cast tank turrets in. However, anything up to and including a tractor-sized combustion engine block is possible. Obviously it is not an assembly-line style drop-forge, it is used for doing specialized, one-off type casts,

A5. Parts Cage

This sub-area is a caged in part of the shop with two doors with open windows in them. A variety of nuts, bolts, screw, hinges, small pieces of pipe, wire, small electric motors, wire nuts, and so on are kept here. When the shops were operating, the area was staffed by someone responsible for looking after the stock.

The two windows open out onto the Machine Shop and the Mechanical and Maintenance area so that either of the two areas can get what they need from the parts cage.

A6. Hoist

Running the length of the ceiling from the the Forge Room to the Materials and Electronics area from east to west is a rail for a 20 ton hoist. This meets at two points (in the Machine Shop and the Materials and Electronics area) with north-south lines. The hoist (and anything on it), can be moved from one track to another with little trouble.

This allows heavy objects to be moved from the Forge Room, to the Machine Shop, Mechanical and Maintenance, Materials and Electronics, Production/Assembly areas and even out to the trans core. Note that these objects can only be moved **directly** under the track.

B. Engineering and Production Areas

The purpose of these sub-areas is to support Prime Base. They do this by providing the technical support to keep the Base operational. They also create practical, usable designs which they build for the researchers in the labs above.

B1. Mechanical Engineering and Maintenance

This sub-area designs and builds mechanical parts for the research lab and also does the routine (and extraordinary) maintenance for the Base. The maintenance covered includes all plumbing, heat and lighting, and lightweight construction projects.

Most of this sub-area is taken up with open space where people can work on whatever it is they're working on. Along the northern wall of this sub-area is a workbench fix-it table where drafting is done, minor repairs are made and things like light bulbs are repaired and put back into service.

B2. Materials and Electronics Engineering

This sub-area houses two separate engineering groups. The materials group, who are responsible for creating, to spec, a wild variety of substances and the electronics group who designed and wired up whatever was needed.

The materials group generally used the northern half of the sub-area. They could make anything from plywood and plastics to ceramics and even semiconductors. They produced whatever materials were needed if what was needed was not in stock. They also produced some of the odd materials needed by the research scientists on the level above.

The electronics engineers were responsible for creating and maintaining the wide variety of electronics used in the Base as well as building whatever electronic controls and gizmos that were thought up in the labs on Level 3.

Because the materials engineers used a lot of worn out scrap pieces, the electronics folks called them "The Rag-Bag Boys". The materials folks retaliated by calling the electronics engineers "Sparkers".

B3. Production/Assembly Area

This sub-area was left empty of all equipment (though it did have a hoist rail running along its ceiling). Its purpose was to provide a space where equipment could be produced and assembled.

Whenever extra space was needed for the assembly of a piece of equipment, this area was used. This provided both an overflow area and a place where a number of similar pieces of equipment could be built by technicians. There are several power strips along

the walls and there are a number of tables, benches and electrical power strips available in the supply levels below which will fit nicely into this room. Thus the room could be rearranged according to the needs of the moment and if necessary, the partition between this sub-area and the Materials and Electronics sub-area could be removed.

B4. Hydro/Aerodynamics Engineering

This sub-area was where design and development of water going craft and flying craft took place. The facilities are available both to design and build models and to test them in the wind tunnel and the boat tank.

B7. Fusion Engineering

This area is used to design and produce devices connected with fusion. There is equipment here to produce, fix or retrofit the Morrow Project fusion packs. There are also facilities for designing, and producing whatever the theoretical types upstairs came up with.

This group is responsible for the repair and maintenance of the fusion source of the power reactor at Prime Base and any subsidiary power units including those used in Base vehicles and aircraft.

As in the Laser/Energy Lab on the level above, the area is sealable and has radiation detection circuit to prevent leakage.

B8. Admin

Because of the large number of problems the fusion and Laser/Energy engineering sections were expected to have to cope with, a separate admin area was provided for them. This also had the advantage of screening people entering the area since these kinds of technology can be dangerous to wander into unannounced.

B9. Laser/Energy Engineering

This area is where the engineers design and build laser and power devices (excepting fusion devices built in B8).

As far as the Base is concerned, they look after all laser technology used at the Base including surgical, communication and weapons lasers. They also handle the mundane problems involved in power transferral after electricity has been produced in the fusion reactors.

Beyond this they are responsible for producing working systems based on the ideas produced in the Laser/Energy Lab on the floor above. As with the other engineering areas on this level, when "high" levels of production are required, they must design a method which will allow assembly of large numbers of units. Note that in no instance was it expected that the Base would produce anything in quantities larger than a few hundred.

Notes On Level 4

While it was not possible for the shops and engineers of Prime Base to be able to build everything that might be needed, it was hoped that they would be able to deal with most situations. However, it is worth mentioning again that these shops were never intended to provide support for the whole country or even the whole of The Morrow Project. They are strictly limited in their resources and their space. As mentioned several times, you could not build a single jet airplane here let alone a production line for F-15s.

As with Level 3, mention of the microcomputers, telephones, pens, pencils and mundane tools has largely been omitted. Each of the sub-areas has these in abundance.

PLAY OF THE GAME: SUPPORT CYLINDER, LEVELS 3 AND 4

As interrelated as all of the departments on each of these levels are, all are included in this single POG section, Where special mentions need to be made they will be, identified by the area or map reference as needed.

Both levels were tied into the EPG in minimal fashion the emergency lighting, etc., is operational. Ordinarily these levels would have been hooked into the "command" option of the EPG, as any or all of them might have been instrumental in correcting a situation that had deprived the rest of the Base of power. But the personnel who made the final EPG arrangements

decided to omit these levels from the grid. The emergency that had struck (and would last 150 years), was not of a kind that could be handled from here.

Few of the doors on either level are locked. Doors that are locked have been noted as such in the text. Of minor note are the armored "air lock" doors in the bio, chem, and radiation areas. These are all locked and inoperable; they are all power dependant, much too massive to budge by muscle when locked, and will not work again until the main power grid is restored. Also sealed is the Specimen Room door in bio. While not armored or unusually heavy, it is still locked and slaved to the MPG. (Not that this matters. There's nothing alive on the other side of it, animal or viral.)

A few more words need to be said about the bio-war research lab. While a bio wiped out the Base, it was not the fault of this establishment or its personnel. People here were supposed to work on samples brought to them. The lab was not set up for, and was incapable of, detecting agents entering the Base during the course of normal operations.

The plague was established in the Base before anyone knew it: after which it was too late to do anything about it. As the first victims fell ill (all exhibiting different symptoms), nobody suspected a bio. It was only after most of the people in the Base were "coming down with something" that the possibility of a bio was looked into. This was done not because of the symptoms but because of the suddenness and magnitude of the infection.

Between the medical people and the bio-war staff (among whom there was a lot of overlap), a fair amount of progress was made. It was established that the plague was being caused by a bio agent and the operation of the bio was identified as a ruthless assault on the immune system of the host. Things did not progress farther before everybody was dead.

The bio labs still have about a half dozen of their staff present; people who died trying to gather enough information to enable a cure. Records were gathered about the bio and are complete - as far as they go. These are still present in bio admin's computer. No cure is recommended or offered but there are complete records of cures and treatments that were tried, and that failed. Of some direct value is a procedure that the staff did come up with that identified the presence of the "bug".

With this lab, these records, some time and a really good biologist, progress toward a cure or a vaccine is possible. But only progress. For any real chance of success you'd need all of the above and one more thing: a sample of the agent. The difficulties and dangers of any such effort do not need much comment. There is, after all, every chance that if the researchers do not find a cure quickly, they will not find one at all: they'll be dead. Remember though that there is (or was) a vaccine and that the Krell had it.

The remainder of these Levels is much as described in the text. The only changes are those that came from last minute alterations for the deception (name/label eradications, etc.) and those wrought by 150 years of neglect.

By the time the Team arrives the labs and shops will be even more valuable than they were originally: they may be the last of their kind on the planet. This will not help the Team at once; none of the stuff here is working. Even working, it takes somebody that knows what things are for and what to do with them to get the most out of the stuff. The Team may not realize what they have here.

When the main power grid is reestablished a lot of the equipment in these labs and shops can become actively dangerous. Players who wander around "pushing buttons to see what happens" may be in for some rude surprises. Some equipment will simply fail to work. In some other items a part or two may not work any more, but power is still going in, other parts are working, and so something will happen and something will break. Still other items will work perfectly. This will be unfortunate if the item in question is a prototype laser and a Team member is unknowingly in its line of fire.

Play testing has shown that most players are used to the condition they found their own, bolt hole supplied equipment in; and expect

the gear in Prime Base to be similarly preserved. It is not. There has been no nitrogen atmosphere here, equipment was not packed away in cosmolene.

Here is a subtle point but an important one: The equipment in the labs and shops, indeed, everything in Prime Base, may or may not be immediately useful to the Team. Whether it is or not does not matter in the long run, either way (though some Team members, short sighted and bleeding, may not agree). All of this pre-War equipment is most valuable for the following quality: all of it may now be irreplaceable as a pattern. Each item is an example that can be copied to make more of the same things.

This is the paramount value of all of the equipment in Prime Base.

SUPPORT CYLINDER, LEVEL 5: PRINTING

Aside from this, it was realized by the Project planners (sometimes known as "Planner's Nuts") that the Morrow Project would have urgent need of printed materials from the day it began active operations. Printing presses and rudimentary layout facilities were a basic part of every manned Morrow Base. Most of this effort was geared toward pedestrian efforts like the mass production of handbills and public notices. Some of it was intended to be capable of producing books and other serious work. The facilities located here were of the later sort.

A1. Press Room

This rather large room contained a variety of printing presses: everything from hand bill cranks to newspaper printers to four color presses. Interspersed with the presses was other equipment for binding, cropping, drilling, etc. Even photo copying machines were present. Among this clutter there was still a fair amount of empty space: places where completed work could be left to dry, or where skids of paper could be kept pending use. This is a very cluttered area. It was frequently a very noisy one too, when it was in use.

A2. Layout Area

Printing is only a later step in producing a document for publication. Prior to printing, layout is essential. Layout consists of typesetting, graphic production, and the planning of a document in detail as well as in general. Before any publication goes to the presses for mass production, a prototype must first be constructed by hand. That is what layout is all about.

This area is therefore filled with all of the tools and equipment necessary to that process. These are not terribly impressive. For the most part they consist of drafting equipment, drawing boards, light tables, and a lot of small items like pens, brushes, and erasers. Slightly more convincing are the computer typesetting facilities; but only slightly. To people unfamiliar with what goes into producing a published document, the area would make no sense at all.

A3. Printing Stores

The operations conducted in A1 and A2 needed a fair amount of material to support them: this is where that material was kept. The room is a specialized warehouse devoted to providing for the needs of Prime Base's printing operations. Most of what it contains is paper; dozens of different kinds of paper. Also present are inks, spare parts, office supplies and cleaning equipment.

B1 and B2 General Support/Stores

Both of these rooms are warehouses for the Base's General Support/Stores (GSS) system. The GSS system is explained later under its own heading.

The southeast corner of Level Five is occupied by the Base heliport. The heliport is described in its own section of the module.

PLAY OF THE GAME: SUPPORT CYLINDER, LEVEL 5

The printing operations of level 5 and the warehouses were neither of them vital to the Mission of the Base. EPG arrangements for this level are limited to the usual emergency lighting system.

The doors to the three areas associated with printing operations are not locked. The doors to B1, B2 and the heliport (H4 & H1) are locked. See the sections concerning the heliport for details.

The above considerations effectively limit the Play of the Game section for this level to the printing areas. There is not much to see or do, not much that is exciting. The machinery in the Press room is impressive but inoperable due to lack of power. A professional pressman would be necessary to operate a lot of the equipment here anyway. Layout is a little more comprehensible to the casual observer but might easily be mistaken for a drafting shop. The printing stores area looks like what it is: a gargantuan office supply facility.

None of these areas was much used. Printing and dissemination of documents were not going to be necessary until after the war during the active period of the Base's mission. The only use these areas saw was from printing up the Base's internal newspaper. This rag was only published at wildly erratic intervals and was never very long. It resembled a handbill more than a newspaper and carried more gossip, rumor, slander and sarcasm than news.

Thus all of the equipment in the printing complex is used but in good condition. The area has a "lived in" feel to it. The area is messy. Printing operations are always messy.

Player Teams may disregard this area as being of no use and no importance. This might be true; for the short term and as regards their own needs. But over the long span of time, this facility is as vital as any other in the Base, perhaps more important than most. If people are going to read again, if there are going to be books again, this printing complex, or others like it, are going to be necessary. Without them or some other means of mass producing publications, the post holocaust world will remain largely illiterate for lack of anything to read!

This area has everything necessary for the production of actual bound books; save workers who know how to make it all happen. Production of manuals and other, similar jobs, are still less trouble to produce. Like other areas of the Base, this may be the last facility of its type in the world.

Remember though, that if this facility is eventually used for mass printings, the supplies stored for its use will be expended quickly. This might not have been a problem 150 years ago: more paper could be found, or made. But in the world of the Team there are not likely to be any paper makers, and certainly no paper mills.

SUPPORT CYLINDER: LEVELS 4 AND 5, HELIPORT

The Heliport fills the south east quarter of levels 4 & 5. All areas that are part of the heliport are designated with the letter "H", regardless of which level they are on. The functioning of the heliport had nothing to do with the other operations on these two levels and so is being treated as though it were a "level" all its own.

A "heliport" is an airfield designed to be used by helicopters. Generally, heliport designates an airfield that can only be used by helicopters. This is certainly the case with the Prime Base facility.

The Base heliport is a little over two "levels" tall; about seven meters from floor to ceiling at its highest point. The linear dimensions of the facility can be seen on the map. Note that much of the heliport on level 4 forms a balcony that overhangs the flight operations floor below.

Helicopters that used this facility entered and exited via the large doors located at the south east corner of the levels. These doors faced a natural rock cave that emptied through the ridge into White Rock Canyon, above Slumgullion Creek. More will be said about this cave/tunnel later on.

Only a limited number of aircraft could use this heliport and these had to be small in size. Arrangements were made for only three aircraft.

The purpose of the heliport, and its small complement of flying machines, was to give the Base a limited air-recon and air-transport capability without recourse to the heavy lift assets that existed

elsewhere. The choppers that were kept here were intended for short notice employment for limited missions. These were only supposed to be employed after the active phase of the Base's mission had begun. They were also supposed to be used as sparingly as possible, since flying directly to and from the Base might compromise the Base's location. After "normal" air operations had been established at the airfield to be constructed north of the Base, this facility was to be de-emphasized and used only during emergencies or for other special purpose missions.

H1. Flight Operations Floor

This is a large, open area. It served as both a landing place and a parking lot for the helicopters, and as a garage for repairs, too. The circled "X" on the floor near the doors was the landing mark for incoming helicopters. The other "X's" near the walls were designated parking areas. There was space here for only three helicopters.

The doors that lead to the Trans Core are larger than usual and of a folding design to accommodate the odd shape of the door way. These doors are also unusual in that they form an absolutely airtight seal when closed.

Note that there are two stair ways in the area. Both lead to the operations deck above.

H2. Heliport Doors

At the south east edge of the heliport are the flight doors: the means for letting the helicopters in and out of the Base. There are two doors; each is over three meters across and over five meters tall. Between them they cover an opening some seven by five meters in size. These doors are big. They are also armored, very thick (almost a meter), and unthinkably heavy. They move in tracks on the floor and, when open, slide into recesses in the walls to either side of the doors (see map).

H3. Machinery Room

This room encloses the very powerful machinery, hydraulic winches operating on electric power, that opened and closed the doors. This machinery is essential to the operation of the doors. No provision was made for "manual" controls as this would have been pointless. Under the conditions of Prime Base, getting people to move the doors by hand was monstrously impractical.

H4. Heliport Stores

Not everything that the heliport might need could be kept here but most of it could. This was a storage area devoted to spare parts, maintenance tools and equipment, and supplies. It was not a shop area; work that had to be done on the "birds" was generally done outside of this room. Weapons and ammunition were never kept here.

Heliport Upper level

H5. Flight Operations floor: Overhead

In spite of the fancy name, all that this area constitutes is open space above the flight operations floor. While empty, it is absolutely essential. Rotary wing aircraft: helicopters, need a lot of headroom! The ceiling of the area bears mention because of two features. The first of these is a truly impressive array of lights. When operated in the proper mode, these could make the entire interior of the heliport as bright as noon in the desert outside. The second is a moderately complex hoist for aiding in heavy repairs on the floor below. During flight operations, this hoist was kept well back and over one of the two decks of the area.

H6. CBR Monitors

"CBR", as mentioned many times, stands for Chemical, Biological and Radiological. This room is a control point for monitoring those kinds of contamination. This is of obvious importance given the near-by doors that give access to the outside world.

An array of contamination sensors was placed in the tunnel to the canyon beyond, in White Rock Canyon, and in the heliport itself. Any one of these sensors detecting dangerous or even suspicious evidence of contamination sounded an alarm and caused the doors to the heliport, all of them, to close. These

sensors were not part of the Base's overall protective array and operated independently of that system. The idea was to seal-off the heliport - instantly - if contamination of the rest of the Base was possible.

The equipment located in H6 is not of a sensory nature itself, nor is it directly concerned with turning the system on and off. Rather, this is the point through which all of the linkages pass and the location of specialized sensing and detection gear that would come into play if the alarms were triggered.

H7. Operations Deck

This is an open space; it is not closed in, it is not a room. A railing separates any person on this deck from a fall to the floor below. This deck had no specific purpose; it served as a means of getting around on this level. It was occasionally used for work or short term storage of one kind or another. It was "spare space". Note that one of the stairways from the operations floor below terminates here.

H8. Flight Operations Center

This is the control room of the heliport. It is arranged around a sloping glass wall that fronts on H5 below. The view of the heliport from here is very good.

A long control console faces the window. There are positions here for a number of operators. From the control console, all of the operations of the heliport could be controlled, with the exception of the actual flying of the "birds". The doors of the heliport were routinely opened and closed from here, CBR read-outs from H6 can be found here, and quite a bit in the way of radio relay equipment is located here too, (This was necessary for commo with helicopters that were out of the Base, or coming and going. The radios themselves were not located here. All external commo was controlled from the commo center in Operations, but linkages allowed the heliport to talk with its aircraft as though they had radios of their own.) There are also positions at this console for weather readouts, wind speed indicators, and other environmental information. There are no positions for radar and other traditional flight controllers.

To put things in a nutshell, the area is one of obvious "high tech" but it bears only a partial resemblance to "normal" flight control facilities. This dissimilarity is entirely due to the unique conditions of the Base.

Only one door leads from this room to the Trans Core, and only two doors lead from this room to the rest of the heliport. All of these doors have airtight seals.

H9. Maintenance Deck

This deck is much like its counterpart on the north side of the heliport. It too is open to the rest of the heliport and has stairs that lead to it. But this deck is larger and had a distinct purpose in the scheme of things. This area was intended to be used during maintenance of the helicopters. When subassemblies of the choppers had to be moved and worked on, this was *one* of the areas that the work was done in. This tended to keep the Flight Operations Floor clear, which was the whole idea.

Notes on the Prime Base Heliport

This is a modest facility intended to handle limited flight operations. It was and is sufficient for that purpose. It is not a full blown airport and cannot be used as one. This facility is not up to maintaining long term flight operations; it's too small and too poorly equipped. But within these limits it's a fine piece of design.

Play of the Game: Heliport

The Prime Base heliport provides the Team with some unique opportunities and dangers: rather more of the latter than the former. Since the heliport potentially gives access to the outside world, PD's are encouraged to read what follows with more than casual attention.

The heliport is not on the EPG. It might have been, but the people shutting down the Base saw no need to include it. The

power available here is limited to that provided by the usual emergency lighting system.

The doors which lead into the heliport are electronically locked. There are only three such doors, each of them facing the Trans Core. These are the doors from the Trans Core to H1, H4, and H8. The doors to H1 and H8 are of interest because they are airtight, as are several in the heliport area. This was an environmental necessity for two reasons. In the first place, helicopter flight operations in the limited space of the heliport could not help but kick up a lot of dust and dirt. The airtight doors kept the whirlwind out of the rest of the Base. The second reason was more sinister: the airtight doors reduced the hazard to the rest of the Base from any CBR agent which might enter the heliport, monitoring system or no.

There are still two OH-6 Cayuse helicopters in the heliport (there had been three, but one was lost in the raid on Pahute Place). These are small helicopters (see the New Equipment portion of the module for specifications), but they still take up a lot of room on the flight operations floor. Each is 9.24 meters long, rotor to tail: that's a tad more than four of the map "squares" long. One is parked on the north "X" of the floor of H1, the other is on the southwest "X". The third, empty "X" implies that something is missing from the area.

Neither of these helicopters is fit to fly. Fusion powered they may be, but they have been sitting here for 150 years without any attention. Complete overhauls by qualified mechanics are a must for safe operation. (Oh, the power is still there, but if an engine does manage to fire up something will fail. It may be as simple as a blown fuse. It may be something spectacular like a thrown rotor. In the later case, it would not be wise to be anywhere near by...)

The helicopters aside, the most interesting part of the heliport is H8: Flight Operations Control. None of the equipment is working; there's no power, and won't be until the MPG is back on line. But all of the switches, knobs and buttons are labelled and are therefore guaranteed to spark a world of speculation. None are more likely to do so than the controls for opening the hangar doors.

Said doors are huge and massive. With the main power grid out, they cannot be opened. Nor can they be forced open. The possibility exists that they might be blown open, but this is terribly unlikely. About the most that the Team will likely be able to accomplish is to blow a hole in a door. (And this had best be arranged through some remote process, else people are going to be killed.) The Team may not know it, but they don't want to do that.

The CBR sensors of the heliport are passive in the same way that the electronic locks of the Base are passive. The sensors are still on. If the doors are opened, or a hole is made to the outside in any way, the alarm will sound and the heliport will be sealed off from the rest of the Base. It is, after all, radioactive outside in the valley. Someone would then have to override, by manual controls, the sealed doors to the area, and this can only be done from the Power Center lower down in Support. In the mean time, there is the tunnel outside of those doors to consider.

The tunnel was there before the Base was built; although until the Base was built it was only a cave. Caves abound in the canyon lands of America's west. As caves go, this one was common place. Its measurements averaged 20 meters in width and about ten meters in height.

The outer face of the heliport doors were built to resemble the rock found in the rest of the cave. It has been so long since the heliport doors were opened that there is now no way at all to distinguish these doors from the rock just by looking at them: no visible cracks or such like.

The mouth of the cave opens on the near vertical walls of White Rock Canyon above Slumgullion Creek. The sides of the canyon here are quite sheer; there is no easy means of climbing the rock to reach, or to leave, the cave. Mountaineering gear is needed for this pitch. Nor is the mouth of the cave all that visible from

down below. Between the tall vegetation on the valley floor and the ever present mists and clouds of the valley, the cave is all but impossible to see from the ground. It's very unlikely that any Team will be entering the Base by this means.

The inside of the cave is no joy either. Mammals returning to the valley have sought out shelter in many places; bats have found it here. For more than fifty years now this cave has been the home of a colony of bats. This is a large and thriving colony, populous and healthy. Some of the bats who live in this cave are also unusually large. The rich diet accounts for this in part. Also a consideration is the effects of exposure to a high level of background radiation on many, many bat generations.

These bats are unlikely to attack people, even people in their cave. The things that live on the floor of the cave are another matter. What those things are, and what they normally live on there, below the bats, need not be gone into. Suffice it to say that Team members do not want to walk through this cave for any reason; whether they know it or not. Opening the heliport doors would give the bats, parasites and scavengers access to the inside of the Base.

Flight operations may someday be resumed from here but it will not be a good idea until the climate in the valley changes and a brigade of exterminators has moved through the cave and the tunnel. Even when the Base was normally operational and there were no exotic perils in the world outside, piloting through this very small tunnel was more a matter of artistry than skill. Now, with the bats, the clouds and the high humidity, passage of the tunnel is almost impossible. Pilots with less than a 90% skill level should not even try it: PDs are advised to require piloting skill rolls for every 5 meters travelled within the tunnel or at the cave mouth/heliport doors. A blown roll means a crashed chopper and there's no place where pilots, passengers or crew can be "thrown clear".

SUPPORT CYLINDER, LEVEL 6: PHOENIX AND GENERAL SUPPORT/STORES

This level is divided into two areas. The Phoenix complex takes up the western half of the level, CSS fills the eastern half. Some PD's may wish to delete the Phoenix establishment from the Base; if that is the case, treat the entire level as though it were GSS warehousing.

A. Phoenix Complex

Who and what the Phoenix Team is will be explained in the section immediately following this one. For now it is enough to know that the Phoenix is the elite, top secret trouble shooting force of the Project. The Team is located here, sleeping in freeze tubes. In the course of "normal" operations, if the Base had functioned according to plan, and if the Phoenix Team had been activated, this would also have been the area in which the Team lived and worked.

A1. Phoenix Access Corridor

This is a hallway which begins and ends at the Trans Core but traces its route through the heart of the Phoenix complex; it's the means for getting from place to place within that area.

A2. Phoenix Access Control

This amounts to a guard room, not unlike Posts One and Two elsewhere in the Base. The Primary purpose of this room was to limit access to the rest of the complex. During normal operations, one or more Phoenix members would be posted here to see to it that only their own people or authorized guests entered the area. This room would also have served as the "orderly room" of the complex, a sort of small scale, informal admin area.

A3. Day Room

The Day Room is a large, multi purpose area. Its main function is to serve as a private rest and relaxation area for the Team. To that end it is equipped with a television, comfortable chairs and couches, low tables, and some limited amusement devices:

a pool table and a ping-pong table. There are even a few vending machines against the wall, but these are empty.

The other purposes of this room relate to duty activities. It could be used as a classroom or briefing room when all of the men had to get together. When the furnishings were cleared out of the way the open space that was left could be used for most anything. The point is that it was big enough to get everybody together in.

A4. Supply Room

This is a storage area for equipment that the Phoenix might need, and need badly enough that it was inconvenient to keep it elsewhere. This includes everything from a store of clean sheets to janitorial gear.

latrines (unnumbered)

The two rooms denoted on the map have different purposes. The one is for washing, shaving, etc. It contains a gang shower, sinks, mirrors, etc. The other is a complete latrine,

A5. living Quarters

Note that there are two of these rooms. Both are identical. Each can accommodate up to 25 men. These quarters are pleasant but Spartan. There is nothing in these rooms but that which was necessary, and this was limited to a bunk, a foot locker and a wall locker for each man.

A6. Freeze Tube Chamber

It is crowded in this room - standing room only - because most of the floor space is taken up by 47 freeze tubes. All of these tubes are functioning and each contains an occupant. These are the 47 members of the Phoenix Team,

B. General Support/Stores

The east end of the level is given over to the GSS system. There are four warehouses.

PLAY OF THE GAME: SUPPORT CYLINDER, LEVEL 6

The Phoenix complex was a limited access area at all times. In fact, there were many people in the Base - a majority - that did not even know that Phoenix existed and that half of Level 6 was devoted to them.

Level 6 does, after all, look much like any of the levels partially or totally devoted to stores. Its door arrangements are a little odd, but that's the case in several other areas too. There's nothing to arouse comment about level 6; that was true for the inhabitants of the Base, and true for the player Team.

Emergency power for Level 6 is a mixed bag. Only the usual arrangements were made for the Trans Core and the GSS areas. All of the Phoenix complex is on the "command" variant of the EPG and of course the freeze tubes of the Phoenix Team are all powered. (Note that should the Team manage to ruin the EPG, or should it fail for any other reason, emergency freeze tube operations would go immediately into effect and the Team would be activated automatically.)

Locks and doors are also variable. All GSS Doors are typical of their kind. The doors which lead into the AI corridor from the Trans Core are armored and locked. Only the north door, the one by A2, can be operated from the outside, and this requires both a key and a combination. The south door of AI is blank; featureless from the Trans Core side. This door can be pushed open quite easily from the corridor side, it's a one-way locking door. None of the doors within the Phoenix complex are locked or even equipped with locks.

The guard room, A2, has an armored window that fronts on the Trans Core. From the outside it looks like any of the inventory control points typical of the CSS. Inside the room are controls that will lock the door to the complex against any intruder; whether they have the key and the combination or not. The door will then serve only the people inside of the complex already.

Everything within the Phoenix complex is in like-new condition. This is as it should be, for nothing in the area was ever used. It has been lying dormant since the Base was built.

This is obvious to any inspection. The barrack rooms have mattresses on the bunks but no bed clothes. There is nothing in any of the lockers, not even empty hangers. The pool table in the day room, as well as much of the furniture, is still wrapped in the plastic it was shipped in. All of the shelves in the supply room are full and there are no "empty spots" among them. There is nothing in all of the rest of the Base like this.

Then there are the freeze tubes and their occupants. It is readily apparent that there are people in the tubes and that the system is still functioning. The tubes themselves are locked in the usual manner. They, and the personal equipment lockers that form a part of them, cannot be opened without activating the sleepers inside. Note the use of the term sleepers. All of these freeze tubes are "hooked in parallel"; activating any one will activate all of them, all at once. (The Phoenix people were a Team. They had an understanding with the Project: they would not be activated and used in piecemeal fashion. They might die, they were willing to die if the situation called for it, but they demanded and received the guarantee that they would all face whatever was coming as a unit.)

There are things about the area which are not readily apparent. The all-or-nothing activation criteria is such a datum. Who and what Phoenix is constitutes yet another. Remember: there is nothing, nothing at all, which identifies anyone or anything in this area to an observer. Nor is there pertinent data anywhere else in the Base. The only way the Team is going to find out what this is all about is by waking the Phoenix people up...

That, of course, can be accomplished in the usual way. The activation process for these freeze tubes is like any other. It's just that activating one activates them all.

Who the Phoenix Team are and notions about how to go about running them are located in the text devoted to the Phoenix Team. We strongly urge the PD to read that section carefully and consider it at some length. You may want to come back to this area and just forget about including Phoenix in your game. Remember that you can always turn this entire level into a part of the GSS system.

THE PHOENIX TEAM

What follows is a description of the little known Morrow Project Phoenix Team. There is only one in the entire Project and it is located here in Prime Base; the reasons for which will become obvious as you read on.

The Phoenix Team is not an integral part of this module or of Prime Base. It and the freezer complex the Team is sleeping in can be omitted from the game; the whole Level can be treated as just another warehouse. Your players need never know of the Team.

Project Directors are encouraged to keep that in mind and read what follows thoroughly before keeping the Phoenix Team in the game or the campaign. Once they are loose in your game it will be hard to stop them. But they also have many uses. ...

The Phoenix Team is composed of 47 men and they are located here on the 6th Level of the Support Cylinder. There are not many of them because the requirements for becoming a Phoenix member were arduous and inflexible. Waivers were not granted to anyone for any reason.

The prospective Phoenix member had to be:

1. Between 25 and 50 years of age.
2. A veteran of an elite combat formation (US. Special Forces, SEALs, Marine Force Recon, U.K. SAS, French Foreign Legion's 2nd REP, German GSC-9, etc.)
3. A veteran of not less than 30 days (cumulative) of combat.
4. Unmarried and having no close familial or personal ties.
5. Mastery of some form of unarmed combat.
6. Fluency in English and at least one other language.

Not many people could meet these conditions. Fewer still could meet the training and temperamental challenges that followed. For

the prospective Phoenix Teamer also had to meet all of the normal requirements of the Project. He had to bring with him other skills useful to the effort, be willing to commit himself to the *Project*, and complete its training. After all of this, there were still two final hurdles to clear. Phoenix members had to pass the most searching psychological test/profile ever devised and endure one more year of intensive training.

These last two obstacles were the most important and, of the two the psych profile was the more vital. The Phoenix candidate had to have complete mental and emotional stability combined with a finely honed sense of morality, duty and self-reliance.

The extra year of training was devoted to making each member of the Phoenix establishment expert in all areas of Morrow Project standard equipment with an emphasis on weapons and tactics. Personnel also received training in one or more of the following: piloting fixed or rotary wing aircraft, the HAAM suit, heavy weapons/nuclear munitions, and other similar topics.

When the process was complete the result was a uniquely capable individual, lethal in all forms of combat and dedicated to the Project. Only a group of such men could perform the mission that the Project planners had in mind for them.

That mission was to serve as the ultimate trouble shooting force for the Project. All of the Phoenix Team's members were killers. they were chosen for this, then trained to peak efficiency. These men are assassins, willing and able to kill in cold blood, without warning, compunction or remorse. In the end, this was their job. The last phase of their training (and some had already completed individual training years before, been frozen, and then were thawed out for this) was devoted to letting them work as a unit. After that they were the finest strike force of their size in the world. Now, 150+ years after the War, there is nothing on the planet like them.

They were included in the Project because some of the more pessimistic planners, Mr. Morrow himself among them, were of the opinion that such a group might be indispensable to the Project's survival. This was the only outfit in the Project that was 100% combat oriented and had no other *mission*. MARS teams, while good, were not in the same class as the Phoenix operatives: nobody was. Phoenix was designed to meet and defeat whatever it might encounter in the post-war world, by itself or leading MARS units.

There were specific situations the planners had in mind. What if a vest-pocket empire sprang up, armed with nukes, and its minions began snatching Morrow personnel for hostages while using their equipment to grab more territory? How was such a situation to be handled? How could the empire be dealt with while keeping the Morrow hostages alive? The Phoenix Team was the answer. its members could assassinate key leaders while others created diversions and a raid liberated the hostages: all at the same time. There was no other force in the Project that could do this.

The Phoenix Team was trained to handle any low intensity, highly violent situation that came up. Counter-terrorism, guerilla warfare, conter-guerilla operations, training of cadres, counter-insurgency; all of the nasty little situations that demand expert attention. The Phoenix was not supposed to be a "stand up" fighting unit in a war. It was not designed to go head-to-head with an armored division and win; it couldn't if it did. But left to its own devices, it could beat that armored division. After quiet infiltration and reconnaissance, the key leaders of that division would die, stocks of ammo, fuel and other essentials would be destroyed and the Phoenix would fade away. All that would be left when they had passed would be useless equipment, leaderless men and a lot of fear. The armored division would have ceased to exist.

The chief mark of a man on the Phoenix team is that there is no mark. All of them are masters of being inconspicuous. They do not stand out in a crowd. They can move quietly through any kind of society leaving no ripples in passing. There is no flash, no glitter, no headlines in the news, only a mission accomplished and a corpse or two.

This was what was needed for the most serious kind of mission for which the Team was trained. This mission was never spoken of outside of the Team and its cadre, and only half a dozen or so other people in the Project even knew of it. That mission was the internal policing of the Project and the possible necessity of killing *Project* members.

All Project personnel were psychologically screened. Each was supposed to be incapable of turning on the Project and setting himself up as a warlord. But mistakes do happen and this risk was too great to take. If it did happen, what could be done about it? Should another Team be ordered to fire on the renegades? If such orders were given, would they be obeyed? What was the possibility of starting a civil war within the Project by such actions?

Here again the Phoenix Team was the answer. The Phoenix was to go in and look over a questionable situation and, if the facts warranted it, take appropriate action. Getting rid of renegade, village burning teams was what Phoenix was all about.

To this end, Phoenix was organized loosely as a platoon. All of its members were the epitome of professionalism and in that kind of crew ranks and regalia do not count for a whole lot. Phoenix has a commander and other leaders but these were not appointed, they were chosen by the Team during and after their group training. No other system would have made sense, or have worked.

It was never intended that Phoenix work as a group all in one place. This might be necessary from time to time, but this would be very rare. Ten man groups and smaller were thought to be about right for regional forces while the basic, operational detachments would be composed of two or three men.

The equipment of the Team was light and surprisingly limited. Not for Phoenix were tanks or MARS One vehicles (And a two or three man Phoenix detachment could knock out one of those cumbersome MARS behemoths without working up a sweat.) They could *use* such things, they just preferred not to. The Phoenix temperment ran toward lighter, faster vehicles like the XR-311 and the FAV, or even a Commando series armored car if the situation called for it.

This affinity for light, versatile equipment extended especially to weapons. Phoenix members were allowed to select their personal weapons without regard to whether or not they were Morrow standard issue. There is thus a fair amount of variation among the Team members' loads and no two are identical.

There is a similarity in philosophy between them though. Most consist of three weapons: something for "far away" such as a rifle or perhaps a light machine gun; something for "close up" such as a pistol, submachine gun or shotgun; and something for "personal" such as a knife, a bit of wire, etc. A few grenades or other items might round out the load, but it is a rare Phoenix member that weighs in with more than 30 pounds of hardware.

There are also very few "exotic" items. Most of the equipment of Phoenix is characterized by being ugly, rugged, versatile and as light as possible. The only time a Phoenix member would be found with a machine gun, rifle, Ingram SMG, HAFLA, HP-35 and a dozen grenades is if he was dead and somebody tried to bury him under all of that junk. The Phoenix attitude is this; if you can't carry it all, comfortably, and cover a hundred miles on foot in four days, you must not need it. Exceptions are made to this as circumstances require, but such exceptions prove the rule.

The planners of the Project realized that having the Phoenix Team was a double-edged sword. While they were the ultimate weapon of the Project, they were also, potentially, the greatest threat to the Project. Any one of these men could, if he was so inclined, set himself up as a pipsqueak dictator in post-war America and make it stick. A group of them could undermine the entire Project.

The psychological testing the individuals were subjected to was the most careful, advanced and rigorous ever performed. Its sole

purpose was to weed out any questionable candidate. If there was even the slightest doubt or suspicion, the man was dropped from the program.

It took twenty years to find and train the men who now make up the Phoenix Team. There were never many candidates who met all of the pre-conditions for membership, fewer still that could qualify through the Project's training and screening. But all of those who could, and did, are here.

All of these men are completely incorruptible and dedicated to the Project and its ideals. They cannot be subverted, they will not change their minds; that was one of the many things the psych-testing was designed to insure. Other members of the Project might "crack"; these men never will.

The group training of the Team was conducted during the final stages of the completion of Prime Base. When it was over, the men were moved to the Base and given the Grand Tour. Thus Phoenix knows where everything is in the Base and all of the rudiments of running it. There are no dummies in the Team; what they don't know, they can learn fast.

After this and a final briefing by the Base Director, Phoenix was frozen. They have been dormant in Prime Base ever since.

One last point needs to be made about Phoenix. It was the hope of the Project planners, and the fervent hope of every team member, that they would never be deployed operationally. Phoenix was only to be activated for operations as a last resort, when something came up that it looked like only they could handle. Otherwise the plan was to let the Phoenix Team sleep until the country was well on the road to recovery. They would then be activated and decommissioned; the men would go out, find or build homes and lives, forget about the Project and never use their unique skills. The authority to raise Phoenix was vested in the Base Director and he was under the strictest orders not to deploy the Team unless it was absolutely necessary.

Phoenix men do not want to go out and kill people, and especially not Project members. That may be their job, they are certainly capable of it and they will do it, but no man among them delights in killing. They are all hoping to be woken up and "put out to pasture". But if that is not to be, they will carry out their mission and that of the Project efficiently and with precision.

PLAY OF THE GAME: THE PHOENIX TEAM

The only way that the Phoenix Team can get loose in the game is if the PD allows it. This module is written so that the Phoenix will only become active if the players find the Phoenix Team and activate them themselves. We have included no "trick" gizmos to waken them automatically and we advise the PD to consider carefully before including any of his own. Nor have we planted any clues anywhere that might lead the players to the Team. The same cautions to the PD apply here, too.

Phoenix was not raised by the Base Director during the Base's troubles for a couple of reasons. In the first place, it didn't look like they'd be necessary. Right up until the time that the Base launched its raid to free its people it seemed like the Base could handle the situation. After the raid and the detonation in the Valley there was no longer any need. (Had the Base actually been invaded the Director might well have called upon Phoenix to help out.)

And then, once the bio was loose in the Base, the Director certainly wasn't going to raise the Team. Without a cure for the plague, he'd only be condemning them to death, too. Nor was any wizard, delayed action device for waking the Team employed. One could have been made, but without knowing how the bio worked or how long it remained active, the risk to the Team was again too great.

Besides, the sleeping Phoenix Team was the Base's "hole card". If the Base was taken over by hostiles and they, for whatever reason, activated the sleepers themselves, there was every reason to expect the Team to take the Base back and set things to rights in fairly short order!

So it will be the players who have to activate the Phoenix Team.

The Phoenix is activated like any other Team; they're all in standard freeze tubes. There is, of course, nothing in the Phoenix sector of the Base that would give the players' Team any clue as to who or what the Phoenix are.

When they wake up the Phoenix will know right away that something is monumentally wrong. They will be seeing the scruffy player-characters and not the Base personnel. As soon as the sleepers get their bodies working again, they'll start asking a lot of questions.

What the Team will see is 47 men getting out of freeze tubes. The men vary in age but all appear to be in top physical condition. All of them are wearing light grey coveralls (as opposed to Prime Base orange) with the Project patch on one sleeve but an unknown patch on the other. All of the men have very short hair.

No time will be wasted by Phoenix. The Team Commander will be expecting a report from the player Team right away. If playtesting is any indication, the players will go into shock about now. They're probably filthy, evil smelling, poorly equipped, gaunt to the point of starvation, lost and hopelessly confused.

They probably did not expect to find a team frozen anywhere in the Base, but having found one, they probably are not ready for that Team's "take charge" attitude and professional activity from the moment of activation. Faced with the Phoenix leader's demand for a report, no playtest team ever managed to deliver anything like a coherent description of what was going on in Prime Base, what had happened to it, what the Team was doing in it, or even who the Team was.

This bemusement works both ways of course. What the Phoenix Team probably sees is a low grade of savage. They may be wearing Project clothing, but otherwise they look like a group of down and out Cro-Magnon men. This is the last thing that any of the Phoenix men expected.

Under the circumstances, the Phoenix leader will display tolerance beyond all reason in answering idiot questions from the Team. It will not take him long at all to figure out that everything has gone completely to hell. The Project is defunct and the Base is falling into ruin around his ears.

Under these conditions there is no doubt of what the Phoenix will do: they will take charge. First they will get the Base running again. Then they will restart the Project. (If Phoenix men admitted defeat, they wouldn't be Phoenix.)

Phoenix will not be able to do this overnight. Getting the Base cleaned up and working will take them several weeks at a minimum. They know where things are for the most part, the only aspects of the Base that will catch them by surprise is all of the moving around that was done for the purpose of the Deception; they won't know where things were put until they find them.

But the Phoenix Team will know where all of the offices and command centers are, especially the Base Director's. They'll be checking these for messages. This should yield them keys and combinations, locations and explanations, in fairly short order.

Power and essential services should (assuming the player Team has not damaged anything vital previously) be restored in a matter of hours after Phoenix is activated. Water will take longer because pipes will burst as readily for Phoenix as they will for the Team. But the Phoenix men will not make idiot mistakes in dealing with the situation. Water flow for most of the Base ought to be possible within a day or two.

In the short term, Phoenix personnel know where to go for supplies, especially for food and water. (And for that matter, beer and whiskey. Highly disciplined as they are, they will not be drinking on duty. They are likely to consider themselves on duty until the Base is straightened out.)

In two or three weeks the Base ought to be able to support its mission again. There will still be work to do in it, but then you don't correct 150 year's worth of neglect all at once.

Relations between the players and Phoenix ought to be interesting. The Phoenix CO will initially detail a few of his men to take care of the player Team if they look like they need it. (And they probably will.) these men will make it their business to get the players' Team fed, washed and comfortable. All Phoenix men have excellent first aid skills (75% or higher), many are paramedics and a few are unofficial doctors or surgeons. (Unofficial means that they don't have the degrees and the diplomas, but they do have the skill.) Medical help for characters that need it should pose no problems. Phoenix medical specialists made it a point to know where tools were kept in the Base. They know where the Med Units and Bio Comps were stored and can arrange to have these tapped in the EPG.

Every effort will be made to give the players some rest. They won't be bothered to work until they are up to it. The most onerous duty that will be expected of them, when they are up to it, will be the presentation of an exhaustive briefing of everything they know about the status of the Project and the outside world.

But before and after that the players will be spending a lot of time with the CO and other members of his Team. Question and answer sessions are the purpose. The Phoenix leader will want to know everything that the players know.

In exchange he'll be answering their questions, though he probably won't know the answers to a lot of them; such as, what happened to the Base. If asked about what in the world Phoenix is, any of the members will respond, truthfully, that it is Project's Top Secret, elite military Team. Nobody is going to say that it is also their job to shoot the players should it become necessary. But on all other topics the Phoenix will answer the players directly and honestly. Why not? They have nothing to hide. (Rude personal questions will probably be ignored.)

Directness and honesty will characterize all of Phoenix's interactions with the Team. Phoenix men don't talk much, and never just to hear the sound of their own voices. They may seem abrupt or even curt, but this is a reflection of their no nonsense attitude. They are not arrogant. They will not be looking down on the player Team (unless the players do something to merit it), even though the players may think they are. Phoenix men will see the Team as comrades; so much so that they will not think to mention it. The sad fact is that the Phoenix Team will probably be putting a whole lot more trust and friendship into their dealings with the Team than the players will be affording them.

What exactly the Phoenix Team will be doing depends a lot on the conditions of your game. First priority goes to getting the Base back together and the Project after that. The Phoenix might consider reconning around on the outside, but only in connection with the former two jobs.

But, if the players were pursued to Prime Base, the Phoenix Team, based on what the Team has to say, might put together a raid or an ambush. If the players had to leave anybody behind because of wounds or for whatever reasons, the Phoenix leader will detach a team to go find and rescue them without hesitation. If the players were operating out of a base (like TN-7), the Phoenix will try to get into radio contact with them.

The long term activities of the Phoenix are straight forward. they will man and command Prime Base until they can find someone to take over both jobs. There being no higher authority present, they will be combing the records of the Base in search of a Field Base Commander or other leader to take charge of the mess at HQ.

This will not stop other operations such as getting in touch with as many active teams as possible and letting them know what is going on. They may even activate some more teams, but they'll keep such activity to a minimum.

It's like this: the Phoenix Team will run Prime Base because there is no one else to do it. (And they'll probably do a pretty good job, too, but that's beside the point.) But the Phoenix Team

knows that this is not their job, that they are not qualified to do it, and that there are not enough of them to do it properly. Furthermore they don't want the job. They will make every reasonable effort to get themselves relieved. (Whether or not they manage this is up to the PD.) If they can't do that, well, just run the Base and the Project; but they won't like it and they'd rather not do it.

Nobody in Phoenix is power hungry (remember those psych tests?). All they want is to turn power over to proper Morrow authority and, after that, to see to it that Morrow turns that power over to the people of a rebuilt civilization. (Guess who was supposed to insure that no Morrow "leader" or functionary would be allowed to continue to hold power after the people were again able to wield it themselves? In the end, Phoenix was the ultimate in-Project guarantee that the Project itself would not turn into a pipsqueak empire.) But the Phoenix will not hand the reins over to incompetents.

More will be said about the possible long term projects of the Phoenix Team in the Designer's Notes. For now the PD should just keep this in mind: The Phoenix Team is utterly devoted to the Project and its ultimate, idealistic goals. The men in it are unique and completely incorruptible. All of them are killers but none of them takes pride in the fact or enjoys killing. They are, each and every one, professionals who know their own worth. They are the best there is and they know it. They do not have to strive or to prove it to themselves or anybody else; and they don't. They talk softly, smile a lot, and look forward to the day when they can get an honest job.

Final Advice to the Project Director

The Phoenix Team is the most potent tool we have ever included in the Morrow World. Used properly, it can be of great help to the PD. But inclusion of Phoenix in your game and campaign can limit things: it *should* limit some things. It will tend to take control of some things away from the PD and the players. This is not necessarily bad, but it is a limitation. Indusion of Phoenix in your game or campaign will certainly change things.

Cavalier usage of Phoenix must be avoided: they are too powerful. Even seemingly simple things are deceptively dangerous. As we have written them up the Phoenix Team takes no interest in anything outside of the Project and its goals and is not amenable to sideshows that might or might not further that interest. "Our" Phoenix Team would for instance, never consent to establishing a "warrior school" with themselves as cadre for Morrow personnel. (They might, if the situation called for it, raise and train a civilian guerilla brigade, but that is another matter entirely.)

We recommend that PDs keep professional contact between their players and the Phoenix Team as limited as possible, and where such interaction is unavoidable, make the interaction as short as practical. Finally: never, never, NEVER let your players run a Phoenix member! Nobody should be allowed to roll up and play a Phoenix teamer! (The gamemaster ought to have something that only he can use anyway.)

We stated at the start of this section that the PD should be wary of including Phoenix at all, and we reiterate that now. In the face of that caution and the remarks just made, you might be wondering why we've included the Phoenix at all.

The answer is that they are so useful. Dangerous as they are to the game, there is a lot that can be done with them. The first of their uses, and their least, is as a "Deus ex Machina". That is why they were included in this publication. (Phoenix has been floating around TimeLine for five and more years now but we've always been too terrified to include them in anything.) In Prime Base the players are going to be taxed harder (if the PD is doing his job) than in any other module we have released. It is *more* than likely that, by the time the Team penetrates Prime Base and is in a position to locate the Phoenix Team, they will literally be at death's door. The Phoenix Team is included in Prime Base so the PD will have a way to save his players if he wants to. Phoenix cannot raise the dead, but they can do just about anything else.

There are other reasons for introducing Phoenix now. Most of these are long term, but they benefit the PD. the Phoenix Team offers the PD a way of taking Prime Base away from his players and forcing them back out into the cold, cruel post-holocaust world. Do you want to run a game where all your players do is sit around in Prime Base and order other people around? With the Phoenix Team in control, the players will have minimal input in overall Morrow operations.

That leads us to the next reason for including Phoenix. With that bunch running Prime Base, and the PD controlling them, Continental operations - and problems - are the order of the day. Control of Phoenix and Prime Base puts the control of the entire Morrow Project in the hands of the PD. Prime Base and the Morrow Project are now being run by non-player characters controlled by the PD.

We at TimeLine plan to use this most-desirable-of-all-possible situations in upcoming Morrow modules. For more on this, see the Designer's Notes.

There is one other immediate use the PD can make of the Phoenix Team. If you have a renegade Morrow Team, the kind that burns villages and eats babies, the Phoenix Team is the remedy. Two or three of these men should be able to take out any team without warning or the chance to do anything about it.

Just remember that the Phoenix Team was the best kept secret of the Project. No field team member, no matter what his rank, has ever heard of them. Thus there can be no rumor of the Phoenix establishment unless you, the PD, get it started.

SUPPORT CYLINDER, LEVEL 7: MOTOR POOL

Prime Base required a number of special purpose vehicles for its own, internal use. This was especially true of the Support Cylinder where large stocks of stores were kept. Such stores had to be moved, quickly and efficiently and this called for vehicles and other machinery. Forklifts, cargo dollies (powered and non-powered) and other load moving equipment was essential.

The rest of the Base needed these things too, along with cargo moving trollies (like those used at airports for moving baggage to aircraft) for moving loads between cylinders. Veritable "trains" of these vehicles and trailers were used by the Base.

Having all of these contrivances necessitated a place to keep them, a centrally located one by preference. It also called for a place where the machinery could be maintained and repaired. Such vehicular storage and repair facilities are commonly called motor pools.

Note that this facility has nothing to do with equipment designed for use externally. This shop was intended for dealing only with internal vehicles and machinery. As a result, there is little equipment for repairing or rebuilding internal combustion engines since all of the Project vehicles had electric engines.

A1. The Motor Pool Floor

Most of the area of Level 7 is taken up by this area. It is large and flat, a place to park vehicles when they were not in use. That part of it closest to the tools and parts areas was often used as a "garage", i.e., a place to work on vehicles. (Separate, enclosed garage space would have been redundant in the closed space of the Base.)

A2. Motor Pool Office

The office took care of a variety of functions. First, it was the dispatch point for the Base's internal trans systems. Vehicle use was planned and allocated from here. (If somebody needed a fork lift and operator, this is where they called.) It was also an inventory control point, in this case for spare parts and other stores required by the motor pool. Next, it was the records and status center for the vehicles and machinery it controlled, keeping tabs on the number of operational vehicles the Base had, the status of those undergoing repair, etc. Most importantly, the office was where the motor pool coffee maker was kept.

A3. Stores

This largish room is full of shelves, crates and all of the usual impedimenta of warehouse type places. It is where ready stores were kept for the motor pool. These were all of the parts that might be routinely needed by the mechanics and other pool personnel.

A4. Tools and Equipment

The tools and equipment area was not a closed off room but an open space. It had shelving where appropriate but was mostly just roomy. Here the tools and equipment of the motor pool were kept, and often used. The area had work tables, vehicle bays, test and diagnostic gear, everything the motor pool needed to do its job of keeping the machinery/vehicles going.

PLAY OF THE GAME: SUPPORT CYLINDER, LEVEL 7

There was not much to the motor pool in the text; there won't be much here. There is no power to speak of. The great bay that surrounds the Trans Core was once lit - dimly - by emergency lighting. That was this level's sole connection with the EPG. There are not many doors on this level but of these, none are locked.

Not that the level is empty! All of the "rolling stock" of the Base was gathered here before the end. There are still hand carts about, gurneys and laundry carts, but all of the large items, all of the powered moving equipment, was concentrated here, along with associated items like trailers. The floor of the level around the Trans Core is fairly crowded with the stuff.

None of the trolleys, tractors, fork lifts, etc., is running or operational. None of this equipment was fusion powered. Why should it be? It was just there for moving things around in the Base so there was no need to complicate things. All of this equipment was electrically powered and all of the equipment had formidable batteries for storage and running. When the charge got too low, the vehicles were plugged in to the Base's power lines and revitalized. With power in the Base being effectively unlimited, this was the most sensible way to handle things.

But 150 years without maintenance and without a charge has left a mess of the motor pool. The batteries, all of them requiring liquid cores, are now dry and useless. None of these vehicles is going anywhere without complete overhauls and charging: unless somebody wants to push one.

SUPPORT CYLINDER, LEVEL 8: ARSENAL

All of Level 8 is taken up by the Base arsenal and related items. There is more here than just those weapons/systems that might be required to arm Base personnel. If that was all that was kept here, a quarter the space or less would be all that was needed. But since the Base also served as a (small) regional supply center, a great deal of the arms and ammunition normally associated with such a point was also stored here. In fact, the small arms stores of Prime Base were the largest stock held by the Project in any one place.

A1. Arsenal Office & Control Point

The arsenal office was the nerve center of the arsenal. In the first place, access to the rest of the arsenal was controlled from this point. The office could only be entered after having passed two armored security doors, one for the room and one on the corridor (2) leading to the trans core, both of which had different combinations. When manned, personnel inside the office could monitor activity in the hall surrounding the trans core through the thick, armored windows of the office. All of the other doors in the arsenal (except for those connected with latrines) were controlled from here. There was no other way to open those doors (short of blasting or other violence). All of the other doors were powered, armored and opened and closed electronically from this office.

Inventory of all of the items kept in the arsenal was also found here. Complete records, paper and electronic, were maintained here and were updated religiously.

Perhaps most important was the map kept here telling where all of those items listed in the inventory might be found. How crucial this is will be made apparent later on.

It is worth pointing out that the office, and the entire arsenal, were not normally manned. There was no need to maintain a watch here, not under normal conditions. Nor did Base personnel routinely go about armed. When, or if, somebody needed something from the arsenal, the proper people were notified, the office was opened and business was taken care of.

Nor were there any provisions for people in the office to fire on the corridor beyond. There is no defensive apparatus as there is at Post One on Level 1 of the Ops Cylinder. It was felt that such precautions were unnecessary. In the unlikely event that a small group of intruders entered the Base and sought the arsenal, there was nothing about this level that suggested anything radically different from any of the levels of stores also found in this cylinder. There were certainly no signs and arrows saying: "Guns: This Way!" Anything larger than a small group of intruders was not likely to escape the attention of Base personnel who could then have been reasonably expected to beat the intruders to the arsenal to check out their own guns.

A2. Arsenal Entry/Corridor

Utterly unremarkable, this was just a hallway for getting around.

A3. Base Armory

The armory was a repair and maintenance facility for small arms. There is an abundance of work tables, tools, spare parts and specialized devices all pertaining to the gunsmith's art. Part of the area is a highly specialized machine shop with tools and equipment designed solely for use in the field.

The armory was capable of complete rebuilds of any Project standard weaponry up to an 81 mm mortar. Even HAAM Suit repairs and overhauls could be performed here. A small, automated reloading facility was also present, capable of handling all standard Project calibres from 9mm to 20mm. At the largest size (20mm), the set up could turn out 1000 reloads per hour. The reloading system can only handle one size of ammo at a time.

A4. Base Arms Room

About 30 feet long and 15 feet wide, this largish room was where the Base kept its ready stores of small arms, ammunition and related items. All of this equipment was kept in racks, ready for use with the minimum delay. The door leading to the trans core corridor was for the entry and exit of Base personnel coming to receive weapons. An armorer or other functionary would be present to issue weapons and ammo.

The Base arms room was present mostly as a precaution. It could arm people in a hurry in the event of a general attack or fighting within the Base itself. Under normal conditions, this room was used only by the MARS personnel who served as guards at Post One on Level 1 of Ops.

A list of the arms found here follows at the end of the description of this level.

A5. Arms Bay

There are 6 of these bays in the arsenal, each quite large. Each is separated from its neighbor by a thick, structural wall. The doors into the bays can be opened and closed only from the arsenal off ice.

The interior of each bay is simply stuffed with weapons, ammo, magazines and other, related, items. These stores were not laid out conveniently on racks and tables, there was no room for that. Instead, all of the gear rests in packing/shipping crates and the like. And while each crate is individually marked, there were one hell of a lot of them.

Furthermore, they were piled one atop the other. There is no way to tell, simply by looking, what might lie at the center of any given pile. The first impression a visitor might have is a vast island of crates in the center of each bay, stretching to the wall of the level, with a narrow walkway around one or two sides of the pile.

Finding any particular item in this area is a matter of extreme luck if the searcher has no help. The only help that matters is the inventory map of the area, mentioned in the description of the Arsenal Office. For while all of the piles look like a random jumble, each is carefully put together to allow for the best possible use of space and optimum weight distribution. (With no consideration given anything else; like keeping bullets or magazines near weapons that can use them.) With the map, anything can be located quickly and accurately; though getting to something can often take a while. Without the map, it is strictly a matter of luck.

Also, all of the items in the bays were packed for long term storage. This meant that the guns were packed in cosmolene, wrapped in yards of protective material, etc. In short, nothing is in condition to be pulled out and used. Even hand grenades were packed away in pieces with the body and filler in one place and fuses in another.

Arsenal & Arms Room Inventory

We don't know why, but we've found through experience while playtesting this module, that everybody wants to know all the details about all of the guns and bullets. That being the case, we are providing a reasonably complete listing of the contents of the arsenal. P.D.s are encouraged, as always, to modify this list to meet the needs of their own game. We do want to interject a note of advice: when in doubt over any item on this list or any mayhem producing device not mentioned here, be conservative! Omit where possible, keep numbers limited where not! It has been our experience that a hungry team is a careful, cautious thinking team; the kind that is the most fun to run!

Arms Room Inventory

Being the issue point for the Base's war gear, the arms room held more than just guns and bullets. The weaponry and ammo stored here was all of a type. Items were chosen with fighting inside of the Base in mind. This is also true of the accessories, grenade types, etc.

Weapons	Quantity
HP-35	100
M10 Ing.	100
M23 Stn.	100
M21	10
Mk23	10
M10A	100
Atchis.	25
HK-69A1	50
Laser Mk 2	10
Laser Mk 3	2
Ammunition	Quantity (in rds.)
9mm ball	10,000
5.56mm ball	10,000
7.62mm ball	1,000
12 Ga. 00	10,000
40mm	
M381 HE	100
M651 CS	200
M576 E2 MP	100
Stun Bag	200
Hand Grenades	Quantity
M26A1 Frag.	100
AN-M8 Smoke	100
M6 CN/DM	100
M7A3	200

Mk3A2	100
Mk1 Illum.	100

Accessories	Quantity
KCB-70	250
M17A-1	500
AN/PRC-68	250
AN/TVS-5	100
M98-23	20
AN/PAS-27	100

Also present in the arms room are 250 sets of the Morrow Project equipment belt and gear with all of the usual accoutrements of CBR kit, Med kit, canteens, etc. The ammo stored here is already loaded in magazines, belts or whatever is appropriate; though loaded weapons are not kept here. Everything is arranged so as to be grabbed in a hurry.

ARSENAL INVENTORY

Weapon	Quantity
HP-35	1000
M27.357	500
M29 .44 Mag.	500
M10	1000
Uzi	1000
M23	1000
M22	1000
M21	100
Mk23	500
M207	100
M60	100
MAG 58	100
M10A	500
Atchisson	250
M79	250
M203	500
HK-69A1	100
HAFLA	1000
M72A2	1000
Armbrust	1000
Stinger	500
Laser Mk-2	250
Laser Mk-3	100
HAAM Suits	25

Ammunition	Quantity (in rds.)
9mm	1,000,000
.357	1,000,000
.44	100,000
5.56mm	3,000,000
7.62mm	1,000,000
40mm	
HE	1,000,000
HEDP	500,000
CS	1,000,000
MP	500,000
Flares	1,000,000
Star Shell	3,000,000
Stun Bag	1,000,000

Hand Grenades	Quantity
M26A1 Frag.	100,000
M34 WP	10,000
AN-M8 Smoke	100,000
CN-DM Gas	5,000
M7A3 CS Gas	100,000
M9A1 BZ Gas	1,000
AN-M14 Thermite	10,000
Mk3A2 Explosive	10,000
Mk1 Illum.	50,000

Note that there are other munitions and related items stored outside of the cylinders of the Base. An inventory of these is found in the appropriate section,

PLAY OF THE GAME: SUPPORT CYLINDER, LEVEL 8

Most of the arsenal is just warehousing and does not need more comment than what was provided in the text, so refer back to that text though; finding things in the arsenal, then getting to them, can be a real chore.

This is particularly true since all of the doors to the warehousing sections are both armored and power operated. The arsenal, under the conditions the dying Base was facing, was not viewed as an essential system. Its only link to the EPG was of the most basic kind: emergency lighting of the Tans Core area, etc. Until the main power grid is restored the heavy doors will not be moving.

The situation is little better as regards the other doors; they're locked too. Getting into any of the areas of the arsenal is going to be challenging without power and without the necessary combinations. And of course, this is no place to get free with explosives, assuming the Team has any.

But then, the Team won't necessarily know that. As noted in the text, there are no external indications that this is the arsenal. The set up here, for all practical purposes, looks just like any other of the warehousing levels of the GSS. Players are likely to discover the unique nature of this area only after they enter it, or somehow learn of its contents.

General Support/Stores (GSS)

Prime Base needed a lot in the way of supplies. True, the Base could, and did, provide for many of its own needs, yet there were many areas and functions that required stores and supplies of a nature that the Base was unable to produce. Such things had to be brought into the Base and stowed before the War began, and often as not, before the Base became operational. Practically all such stores came to rest in the Support Cylinder of the Base and were the province of the CSS.

GSS, or General Support/Stores, was the anagram identifying the bulk supply and inventory system of the Base. In practice, GSS meant any or all of a variety of things. Bulk supplies kept in the Base, the inventory system that kept track of supply levels, the warehousing sections of the Base where such things were stored; all of these were a part of "GSS".

Also present in the GSS system were items/products created in the Base, like excesses of grain or other food products, the output of the distillation facility, etc. In short, if the Base had it and it was stored away for future use, it became part of the GSS system.

GSS had no headquarters as such nor did it have a departmental director; there was no need for either. The Base accounting system provided such command and control as the GSS needed. In the every day life of the Base, GSS meant the warehouses and the supplies in them that supported the activities of the Base.

The bulk supplies of the Base were kept in areas referred to as warehouses. This did not mean storage buildings located outside of the Base. All of the warehouses were within the Base and usually located in the Support Cylinder. Several levels of Support were devoted entirely to the warehouses of the GSS. In other areas, sections of levels were occupied by the storage facilities of the GSS.

The warehouses were all of a kind in purpose, though sizes, shapes and special equipment varied. Each warehouse was a very large room with a locking door. Things were shelved or stacked within the warehouse. No warehouse was the size of an entire level of the Base; structural requirements precluded open areas of that size. Load-bearing walls separated the individual warehouses.

On levels totally devoted to the GSS there was always a smaller room present too; an inventory control point. This amounted to a small office where computer and paper records of what was stored on that level were kept. When things were removed from or added to the inventory of the warehouses on that level, the changes were recorded here. Usually the doors to the warehouses of the level affected could only be opened from the inventory control point.

The CSS system applied to the following areas within the Support Cylinder: 2 warehouses on Level 5, the east half of Level 6, and all of Levels 9, 10, 11 and 12. This provided a great deal of storage space.

Maps of levels 9, 10 and 11 are not provided in this module because those levels are identical in layout to Level 12; for which there is a map. Level 12 is the largest CSS level due to the shape of the cylinders. Level 12 is important in another way in that it is the refrigeration center of the GSS; the warehouses of Level 12 are all refrigerated ones.

GSSPOG

The warehouses of the GSS were filled with supplies for the use of the Base through the War and after. More was stored than was strictly necessary on the "more is better" principle. The subsequent activities of the Base and its personnel depleted these stores but in no way consumed them all; especially as the active period of the Base did not turn out to last as long as had been planned. So while a lot of the supplies have been used, a lot still remain.

The quantity of stores remaining in the Base and the GSS system certainly goes beyond anything the Team might ever require for its personal use, though there will surely be items that are in short supply that the Team will wish they had more of.

The stores of the GSS represent a treasure of incalculable value; it's probably the largest single collection of pre-War manufactured and consumer goods on Earth. But if play-testing is any indicator, the Team is not likely to realize this. We have found that most players take a very narrow and short term view, and so are not impressed by crates of light bulbs and bolts of calico cloth. (They will be, later when they don't have them and need them, but that's later.)

Note that the supplies kept by the GSS were intended for the internal consumption of the Base; not for outside use. These stores were Base stores and had nothing to do with the mission of rebuilding. There is no equipment or other gear in the GSS inventory common to Morrow "mission" supplies. There are such stores, but they are not located within the Cylinders of the Base.

Exactly what stores and in what amounts they are present we leave to the PD to decide. This is necessary if the PD is going to arrange stores to suit the needs of his game (or possibly to prevent some desperately needed items from creeping in...). There are, however, some guidelines we can and will provide.

The stores in the GSS can be broken down into three broad areas: Base supplies, food stuffs and luxury goods. These are broad areas indeed and should be thought of as groupings of convenience. There is some amount of overlap between the areas.

Base Supplies refers to those things stored for the use of Base personnel and equipment in the course of mission operations. These things would be used as needed, issued or expended. Items under this heading include, but are not limited to: work and duty coveralls, assorted lubricants, light bulbs, "field issue" rations for emergency in-Base use, spare power tools and attachments, hand tools, hardware (nuts, bolts, nails, etc.), pens and pencils, photocopying chemicals, fabric in bolts, copper wire, spare switches, pots, pans and other kitchen gear, spare clocks. This is obviously only a partial list of the many, many things that the Base needed to stock to keep things running. The PD should add items as he sees fit, but there is no need to try and list everything. A good way to run this system consists of never volunteering an inventory: require your players to think of and ask for what they want, or think they need. Then, if the item(s) is reasonable, include it.

Also bear in mind the difference between permanent and expendable or perishable goods. Items kept in stores tend to be of the later type, intended to replace things that were worn out, used up, or broken. The Base certainly stocks loads of drill bits; but it stocks very few floor-mounted drill presses. There are many spare parts for the engines of the motor pool trolleys; but very few complete replacement engines.

Food stuffs are next on the inventory list and is self-explanatory to some degree. The Base produced much of what it needed but could not produce it all (no room for apple trees, etc.). Much of what was produced wound up in stores too, at least for a while.

Most of the food that comes under this heading is of the bulk sort, stored in large lots and containers and destined for use in the food services of the Base. This list does not run to individual sized servings in cans, bottles or what have you.

These stores certainly include: wheat, corn meal, rice, flour, sugar, salt, spices, barley, yeast, malt, coffee, tea, and many other "raw ingredients". Large cans or drums of other foods like fruits, vegetables, meats and fish are also present.

Level 12 of Support is wholly devoted to refrigerated storage, from just chilled to frozen solid. Not all of the stores were food stuffs, but most were. These stores included: frozen beef, pork, poultry, mutton and fish, frozen fruits and vegetables of an "exotic" cast, whole milk, and no few other items. Non food items were far fewer but included things like whole blood, camera film, certain drugs, etc.

Luxury stores is a misleading name but a good one for describing the items that fell under that heading. In general, all of the items in this category were consumer goods that would be bought by Base personnel through the Base's PX/Commissary system. This class of stores is the smallest of the three but is without a doubt the most varied. It transcends its own class by virtue of the fact that almost anything can be found in it, food, material, you name it. The emphasis in most areas was on stocking brand names of supplies; particular varieties of things that were produced by reputable manufacturers and enjoyed wide popularity. A partial inventory includes: jeans and other civilian clothing, brand name liquor, soft drinks and beers, specialty foods, coffees and other delicacies, tobacco products, perfumes, jewelry (especially engagement and wedding sets), watches, and any other manner of trinket or vanity that might reasonably come to mind.

These are the kinds of things that once filled the warehouses of the Base. The warehouses are not full at the time the game will be taking place, but there is still a vast array of goods available to the Team that finds them.

It's up to the PD to decide the exact contents of the GSS system, but a suggestion for how to go about doing that has already been made. Try not to include everything; there ought to be things that the Base is out of, or never stocked in the first place. The room available to the GSS was ample but still limited, there was no way to include everything that might be wanted. Keep the contents of the warehouses reasonable in both type and quantity,

It may not be glamorous but there will be a lot more toilet paper on the shelves than there will be tubes of moustache wax. And when in doubt about amounts, the rule is: more of the simple stuff. There is more toothpaste than caviar, more "issue" boots than running shoes, more spools of thread than diamond rings.

One more thing needs to be said in this section, and that is that some of these levels, those used only for warehousing, might have some other use.

We have tried to include everything in this Base that would reasonably be here; but we might have missed something. Conversely, (and in our opinion more likely) the PDs who will use this module may have some preconceived notions of what ought to be in Prime Base that we have not provided for. Their players may have been told that they would find X or Y in the Base but it's not in this module.

The PD is encouraged to think of the warehousing areas of the GSS as "blank sheets of paper" if he wants to. These are the areas that can be used for those things that the PD wants to include and that we did not, Warehousing, after all, can always be put somewhere else, perhaps out with the mission stores in the annex of the Base. One might think of it as a way for the PD to design his own little chunk of the Base.

SUPPORT CYLINDER, LEVEL 13; POWER AND LIGHT

This, the bottommost level of Support, is in many ways the true "heart" of the Base. Since Prime Base is a wholly artificial environment it cannot support a population unless the facilities located here are operational. Air circulation, water and power, all originate here. Heating and cooling, lights and air-conditioning, power to run the elevators, to open the heaviest doors, to charge the batteries of the vehicles in the motor pool, all of these things and many more can only be done if this part of the Base is functioning. And, of course, none of the mission centers of the Base can function without this Level's support.

The importance of this Level, or at least the services headquartered here, has been stressed repeatedly in other parts of this module. Still, it cannot be too often repeated: the Base will not work until matters are straightened out here.

A. Emergency Power/Fusion Facility

The area devoted to fusion research/emergency power fills nearly half of the Level. During normal operations, the fusion plant was used primarily for research into improved means of accomplishing and utilizing fusion power. It was only the secondary purpose of the area to utilize the fusion bottle to ensure emergency power to the Base.

The fusion plant was ideal for this second purpose though. Its size and power potential were more than adequate to meet the relatively modest power needs of the Base for limited periods of time.

The majority of the area occupied or concerned with the fusion plant is very heavily shielded/armored. This was not made necessary by the operation of the bottle (which was utterly safe) but was a precaution taken against the chances of accidents or malfunctions during the course of experimentation, and with an eye to the long term storage of fissionable materials. Thus many of the walls in the area are composed of native rock two meters thick, faced with lead sheathing on their "interior" sides. Airlock style doors are found here and there too.

A1. Fusion Bottle

The fusion bottle, the "reactor" of the Base, is located in the center of this rather large room. It does not take up all that much space, hardly six meters on a side. And most of that space is not the bottle itself but the support equipment needed to maintain the reaction and to convert output to power. Much of the rest of the room is just empty. There is some equipment here, but most of it is related to research and experimentation: not to the functioning of the fusion plant.

The bottle was constructed on site. The parts were brought in and assembled by technicians where the plant now stands. This fusion bottle was the largest ever constructed by the Project, though not the most powerful. The design is unique and very flexible. This was not done to provide the Base with a source of emergency power. If that were all that had been desired, a much smaller facility would have filled the need. This plant was built as it is to facilitate research. The Project Planners did not want fusion research to stop just because of the War.

A2. Direct Control

This area is actually an extension of the larger room which houses the fusion bottle, but it is shielded from that room by a thick wall. Located here are the monitors and controls which directly affect the operation of the fusion bottle; hence the name of the area.

These controls take the form of consoles, most of which are located against the north wall of the area. There is a lot of instrumentation here. "Controls" is a misleading term with regard to the fusion plant. Most of the instrumentation is related only to monitoring (that is: observing) what is going on within the plant (to keep people from having to stick their heads around the wall and look). Relatively few of the controls are devoted to the actual operation of the fusion bottle; only a few hundred or so on three consoles. But these items actually do affect the rate of operation, the output of power, the temperature within the bottle, and all other physical aspects of the plant's operation. There are also what amount to on and off switches for the entire facility.

Note that these are the only controls for the fusion plant. This area is the only point from which the operation of the plant can be manipulated.

A3. Heavy Equipment

Located here is some of the heavy machinery which was necessary for the operation of the fusion plant. Some of this is fixed such as those devices needed for the operation of some of the heavier doors in the area. But most of the equipment is lighter and more mobile, primarily test apparatus, trolleys and forklifts for moving things around. The result is that most of the room is empty of equipment and acts as an intermediate point on the road between A1 and A4.

It is worthy of note that some of the equipment in this room (especially forklifts and other handling gear) is armored against the effects of radiation. None of this equipment ever actually needed such protection, but it was provided "just in case".

A4. Fuel Supplies

Thick walls with lead sheathing surround this area. The interior of the area is broken up into reasonably small rooms, each of which is separated from its neighbors by more walls and shielding, as well as a thick door. These small rooms (which look a lot like the cells of a dungeon), were used to store radioactive fuel; usually U-235.

Some of this was intended for the fusion bottle of the Base but most of it was not. A little of it was earmarked for recharging Morrow fusion plants, of whatever size, as this became necessary. The majority of the fuel located here was intended for external use in the post-War world especially in the realm of getting pre-War nuclear power plants operational again.

This is the largest stock of Project radioactives in existence. Other, regional stores exist, but all of those are smaller. Refined nuclear fuel has applications aside from those concerned with the production of power, so it was thought most prudent to concentrate most of the Project's stores for security reasons.

A5. Reactor Access

To approach any of the areas described above it was first necessary to pass through this room. This is not a security checkpoint, nor even an access control point. This room is primarily a "suiting up" point; it is lined with shelves and racks containing protective clothing.

There is a wide range of protective gear available, from light, lab coat styles to lead-lined drawers. Such protection was not

necessary for casual interaction with the fusion plant but was often desirable during experimentation or over the course of long term activities in the storage area.

A6. Emergency Power Grid Control

This long room is the control point for the EPG. When the main grid inadvertently shut down, relays here were engaged and the EPG came on line. Or, when it was necessary to turn off the main system for a time, operators here could order the system to accept the load without noticeable interruption of service. And of course, as Prime Base prepared for the end, this is where the final EPG operations were set in motion.

The room is lined with control and monitoring panels. These either show the status of EPG operations/systems, or affect their functioning. This is where the controls are located which determine whether or not a given area, or given room, is to be included on the EPG, and if so, in what manner.

There are circuits for each area of the Base, but these are not obvious nor easily accessible nor need they be. The switching of the EPG was routinely handled through a small but specialized computer located here. Orders were punched into it, and it did the rest. Nothing so crude as physically throwing switches was ordinarily needed.

Thus most of the controls located in this room, the ones intended for human operators to mess with, have little to do with affecting the operation of the EPG within the rest of the Base. They are instead concerned with the relationship between the EPG and the fusion plant.

B. Base Power Plant

The fusion facility was not the primary power source for the Base. Fusion power was used extensively throughout the Project: but not where other, cheaper sources of power were available or more useful. Where fusion was needed to do the job, it was used but when other options were available these were used instead. Fusion, after all, requires expensive equipment which takes time to produce, is complex and requires specialized personnel to maintain and repair. Simpler sources of power were used by the Project wherever feasible.

This is the case in Prime Base. Prime Base was sited in an area where volcanic activity was present and it would have been nearly criminal not to make use of all of that free thermal power.

The Base power plant does two things: it monitors and controls the flow of power to the Base, and it produces and distributes that power, usually in the form of electricity. Note that this area has nothing in common with the fusion facility other than some circuitry!

B1. Main Power Grid (MPG) Control

MPG control serves exactly the same purpose as the EPG control it just does it for the main power grid. The area used is larger because the MPG facility has some controls and functions that the EPG does not have, and because the MPG was, after all, more extensive than the emergency network. Of prime interest are some of the MPG controls that are not replicated in the EPG. The majority of these have to do with operating equipment in B2, and more will be said about them there.

B2. Main Power Grid "Floor"

All of the real business of the MPG was carried on here: the generation and distribution of power. Hence there is a lot of machinery and specialized equipment filling the area almost to capacity.

In order for the following description of the area to make sense, it is first necessary for a description of how this area generated power to be given.

Operation of the MPG

The main power grid worked on the principal of thermal conversion which is a fancy way to say that heat was converted to energy of a different form. Prime Base was sited in an area of volcanic activity, which meant that there was raw heat to burn, so to speak. The hot springs that litter the area are the most obvious manifestation of this, and it was the hot springs that were used

by the "heat tap". These hot springs flowed beneath the rock of the surrounding area and only reached the surface after a long journey. When they reached the open they were still boiling hot, while they were travelling through the rock they were hotter still, effectively steam packed so densely that it resembled flowing water! This heat came from the water's proximity, somewhere along its course, to molten rock also confined beneath the earth.

This very hot water has a tendency to make what it touches hot, too, and that is the basis for thermal conversion. The main power grid of the Base is dependent upon the course of hot water flowing through the rock nearby. A large probe is extended from the MPG Floor into the rushing water, causing the probe to grow hot. The other end of the probe terminates at a sealed boiler; a tank of water. The heated probe heats the water in the tank and eventually the water boils, producing steam.

Since the boiler is sealed, this steam is under pressure. When the pressure is great enough, it is released to flow across the blades of a turbine. The shaft of the turbine is connected, by diverse means and through appropriate gear ratios, to large generators. When these are spun (and they are), electricity - power - is produced, and the Base has light and a means to pop its popcorn.

The sealed boiler system allows for the eventual condensation of the steam and its return, as water, to the boiler, where it can begin its journey again. The amount of heat applied to the boiler is regulated by controlling how much of the probe is exposed to the hot water (already much hotter than that in the boiler) outside. Pressure and its regulation does the rest, and up to four generators can be slaved to the system simultaneously. (Two generators supplied more power than the Base ever needed under normal conditions.)

Which brings us back to B2, the MPG floor. All of this equipment is located there; probe and extension/retraction machinery, boiler and water circulation system, turbine and generators. Also present is all of the ancillary equipment necessary to make all of the rest function.

It is a large space but crowded. The probe and its hydraulics occupy most of the east end of the room. The main part of the boiler system is located next to that, toward the middle of the room, but by its nature the water system has a number of lines that wind around a good deal. Turbine and generators are located in the west end of the room, along with their gearing systems and related machinery.

Topping all of that off are the lines that lead to and from this area, all of which are large. Water lines feed the boiler system when necessary (since some water is lost through operation for a variety of reasons). A heavy power conduit comes from the fusion plant. (Because all power distribution is located here, a line was run from the fusion plant to this area for the sake of simplicity.) Then there are the considerable connections to the Base's air circulation system, necessary to keep this area habitable, as under normal operations the area grows oppressively hot. Finally, there are all of the lines that leave this area, taking power to the rest of the Base.

It is not a place comfortable nor intended for prolonged presence by humans. It is a place of heat, noise, and the workings of utterly vital machinery. "Hands-on" controls exist here, but they are intended for use only when remotes will not serve. All normal control was exercised through equipment located in B1. It was intended that men occupy this area only when trouble arose or to perform routine maintenance.

C. Water

Prime Base was not only an artificial environment but a closed one, and nowhere was this more apparent, or more important, than in the circulation of water and air. A fair amount regarding water has been said in another section relating to plumbing, this section devotes itself to the actual handling of the water that the Base used.

Water in greater and lesser amounts flowed practically everywhere in the Base. Even those levels that required no water

for the missions they supported still usually had water present; most often because of latrines. All of the water that flowed to the Base, and all that left it, passed through this area on its journey. This was the source of the Base's water and often as not, its last stop in the Base on its way out. More important than that, though, was the fact that water often passed through here repeatedly, recycled for the use of the Base.

By local standards water was plentiful in the valley the Base was situated in. It was theoretically possible for the Base to run water through its environs only one time: in, make use of it, and out. But the contingencies forced on the planners through considerations of contamination (in whatever form) caused a more elaborate, and closed system to be adopted. The Base had to have a system that used as little outside water as possible. That in turn demanded the creation of a closed system; one that used the same water over and over again.

Therefore the waterworks of Prime Base has several capabilities. It can bring water in from the outside, it can vent water to the outside, it can cleanse waste water, and it can circulate water within the Base.

C1. Water Control

This room is the command center for the water system of the Base. Its most important function is that of monitoring the water circulation within the Base: noting what is going on where and identifying any problems that arise. Most of the room and the control consoles in it do just that, and only that. The rest of the instrumentation in the room has to do with the actual operation of the water plant. All normal control of the water system could be exercised from this area.

C2. Water Floor

The actual machinery and other equipment that made the water system of the Base function is located here. There are several sorts of equipment each with specific functions.

First among these is the system for bringing water into the Base. This section consists of little more than valves and monitoring equipment. Pumps were not necessary as the water coming in was generally hot and pressurized from the hot springs in the vicinity. Open a valve and the water comes in!

Monitoring, and filtration, is another matter. There was always the possibility that incoming water might be contaminated, especially once the War was under way. The monitoring system identified contaminated water before it entered the Base and, if it detected contaminations, triggered overrides that prevented actual entry. Filtration at some level was always in effect and also largely automatic. Solid material of any size was filtered out of the Base's supply automatically. Other filters for specialized purposes could be installed and engaged as needed.

Reservoirs formed another component of the water system. These were nothing more than large tanks that held water reserves for the Base. When needed, the water was pumped from the tanks to where it was required.

Pumping apparatus forms a large part of the equipment of the area. Two huge systems are present, one active and one a reserve for use when the primary system was down for whatever reason. Every direction in the rest of the Base is up from this level, and water does not flow uphill. Pumps or some complex form of pressure tank were needed to provide water for the Base. Pumps are simpler, so they were used. The two systems are identical to each other and have dual capability: they can pump in either direction. The first use is obvious: to pump water up into the Base. The second use was to pump water out of the Base, under pressure, as necessary.

Water collection and treatment took care of the water coming out of the Base and back to this Level. Most waste water, no matter what it has been used for, is still largely pure; a fact that municipal water plants have known and made use of for many years. Solid waste and other unacceptable additives usually make up only a very small portion of water that is thrown away. This section of the water plant is designed to separate waste from water, test the water that remains, purify it and return the clean water to the reservoirs of the Base.

The means used to do this were diverse and included items like settling tanks and the use of the boiler system in B2 for the application of extreme heat, as well as chemical additives, filtration processes, and the direct venting of some lots of water that were too troublesome to deal with. (Much of the solid waste that was yielded up from these operations was used in other areas of the Base, most often in the agricultural projects.)

The last of the functions that went on the floor was the venting of water to the outside. No special area was set aside for this and the "out" lines of the area were the only special equipment for it. Water that was to be vented was identified in the treatment area and sent out via the pumps. Raw waste was never vented, no matter its form. Everything that left the Base was sent through the most rigorous cleaning the Base could provide.

All of this equipment makes the area as cluttered and crowded as the power plant next door. The equipment and the mission are different, but the level of automation and the unsuitability of the area to humans is the same.

D. Air

The air circulation center of the Base is very similar to the water system, in terms of its needs and operations. The equipment and controls located here perform much the same job as do those in Water, but the equipment is different in form, as are most of the physical aspects of the air system. The idea is to circulate, monitor and purify air, which handles a lot differently than water...

The facility located on Level 13 is not the only part of the air plant. Another part is located on Level 1 of Support. Both parts are needed for the system to function as designed. Aside from these main areas, there are vents, shafts, and duct lines throughout the Base that are part of the system. There are not as many of these as one might at first think. The main means of moving air around in the Base is the most obvious one: all those corridors. The corridors of the Base constitute the main air-routes of the Base.

The Base air system was designed to keep the air in the Base fresh and constantly circulating. To do this, air, like water, began and ended its cycling in Support. The farms on Levels One and Two of Support were instrumental in this system. The plants on these levels went a long way toward taking the CO₂ out of the air and putting oxygen back in. This kind of fresh air was routed to Level 13 where it was monitored and tinkered with as necessary. From there the clean air was literally blown out into the corridors that led to Life and Ops, as well as the Trans core of support.

This blowing of air was a constant process that continued 24 hours a day. This served to keep the air moving at all times, and the direction of that movement was generally upward through the cylinders. The air found its way back to support via the air plant on Level 1 of Support. Here ducted fans blew in the opposite direction, dragging air into the area and out of the plant again to the farm. From the farm the air went back to the air plant and down to Level 13 and the journey began again.

Air could be brought into the Base from the outside through a complex system of monitors and filters, but this was rarely necessary. Air is easier to clean and hang onto than is water. Provision was also made to vent air from the Base but this was a much more difficult operation than getting rid of bad water.

D1. Air Control

This smallish room is the control center for the air plant. It is duplicated in the facility on Level 1 of Support. These control rooms can afford to be small since they do not contain the same plethora of monitoring and control equipment as do most of the other command centers. There are two prime reasons for this. First, most of the monitoring of air is automated. Should something go wrong with purity or circulation, alarm would be given and the location noted for human operators, who would then take appropriate action. Second, there really isn't that much to go wrong with the system; it's not as though "air pipes" are likely to burst!

So most of the controls in the room deal only with operating the systems on the air floor (D2) and controlling the rate at which air flows through the Base, etc. A large control center was not needed for this.

D2. Air Floor

While crowded, the air floor is not as oppressive as the operational areas of power and water. There are only two main classes of equipment; scrubbers (filters of one kind or another) and the fans that move the air. Of the two the fans are by far the most interesting. These range in size but most of them are quite large; larger than a man. All of them are equipped with screening to keep foreign objects (like Team members) out of the blades. The largest are set in the walls of the room that front on the corridors to Ops and Life, and these positions in the walls are recessed to point the fans toward those cylinders. These fans, if run altogether and at full power, could create quite a wind storm in the connecting tunnels. This never occurred during operations since the fans were never run at full power nor all at once.

PLAY OF THE GAME: SUPPORT CYLINDER, LEVEL 13

The importance of this level to the Team and to the reestablishment of Prime Base cannot be over stressed. Without the circulation of air and water, without power to make that possible and to provide for the needs of equipment in the rest of the Base, the mission of Prime Base cannot only not be resumed, it will be impossible for the Base to support life for any span of time.

Air and water will not become available until power is restored. Power, in the form of the main power grid, cannot be reestablished without using, and then turning off, the emergency power grid. Getting things running again therefore depends on first dealing with the EPG and the fusion plant of the Base.

Emergency power on this Level is confined to the Trans Core and the fusion plant. "Command" emergency power is available to the control centers of the other areas but not power to operate those facilities. These were switched off as the Base died, there being no need for them and every reason to conserve power and prevent unnecessary wear on those facilities. None of the doors on this Level are locked.

The various areas of the Level will be considered here in the same sequence as was used in the text regarding this Level. The most attention will be paid to the two power systems, fusion and thermal conversion, because they are central to making the others run.

The Fusion Plant

To get the main power grid going again will require manipulation of the fusion plant which has its own problems.

Team members will enter the fusion plant only through A5 or A6, these being the only rooms of the plant that have doors to the Trans Core or any other area of Level 13. A6 is obviously a control facility of some sort, even though most of it is dormant (there being comparatively few systems slaved to the EPG). A5 is more ominous in its tone; all of that protective equipment and clothing cannot be mistaken as to purpose, and the Team will have no way of knowing that the gear was not normally necessary..

The doors from A5 leading to A2 and A3 are electronically opened and closed but not locked. They will open if commanded to do so, but each, due to what lies beyond them, is equipped with an "information display": a small screen that presents warnings or other pertinent data. When the doors are keyed, either of them, those screens will become active and display a warning that hazardous levels of radiation exist on the far side of the doors. This is not "killer level" but it is certainly unhealthy for unprotected people or for long exposure.

And this is nothing but the truth. A2 and A3 are "hot". A2 is contaminated due to its proximity to the fusion bottle, A3 derives its peril via the doors which lead from it to A1 and A4.

Morrow fusion technology is/was as foolproof as the Project's engineering expertise could make it which was very good. Prime Base's fusion bottle is/was state of the art even for Morrow technology. But this facility was not designed to run non-stop for 150 years! And it certainly wasn't supposed to operate without maintenance. The fact that it is still operating at all is a tribute to its designers and construction. Had it been operating at more than the minimum level it has been, it would not have lasted.

The fusion bottle, and thus the entire fusion plant, is in a bad way. It desperately needs to be shut down and repaired its fuel is very nearly exhausted. The entire bottle, due to its constant operation and the failure of several subsystems, is now "hot" and will remain so. There are leaks in the shielding and this has made some areas of the room rather "warmer" than others.

In fact, the fusion plant is on the verge of failure. If even one more fail-safe craps out, the whole facility will shut down automatically. Increasing the load will only hasten the demise of the system.

Just when the reactor will fail is up to the PD. We recommend that the PD not dump the bottle unless and until the Team makes it clear that they are going to continue to rely on the fusion plant. Remember too that shutting down this system without bringing up the MPG closes down everything in the Base. Nothing will work. Under those conditions it is highly dubious that the Team (or what's left of it by now) will ever make it out of the Base. So it behooves the PD to consider carefully before making this move.

Radiation in A3 is highest near its doors to A1 and A4. The equipment in A3 is as functional as any other in the Base: not terribly. The same conditions have applied here, and so it had neither maintenance nor use for far too long. The radiation warning for the door to A4 is emphatic and graphic. Personnel trying to open that door will be warned that the radiation level on the far side is lethal to unprotected humans and not all that safe for those who are protected.

The situation in A4 is simple: the fuel stored here has been here too long. It was never supposed to remain here but to go out to places where it would be used. Instead, it has sat in one place for 150 years and that passage of time has been more than ample to irradiate the chamber and render it hostile to human life.

For those PD's who've forgotten their basic Morrow parameters or are unfamiliar with the nature of radiation, we point out that there is no cure for this situation. One does not "wash off" radiation (which is not the same as fallout) nor does one "chemically combine" it to render it inert. There is no way at all to make it go away. It will, over the course of centuries, eventually dissipate on its own; but that's hardly going to help the folks in this game. (And by the way, unless the contaminants are removed, the radiation will not only not dissipate, it will continue to get worse for the foreseeable future.)

The Team ought to know all this. They can certainly find it out by querying the control consoles in A6. The situation will only get worse until the fusion plant is turned off and fundamental parts of it are replaced, and those parts and the fuel stored in A4 are moved somewhere else. Smart money is on taking the lot out of the Base and dumping it in another hole in the ground somewhere far, far away. Note that moving the stuff is not terribly dangerous: going in after it is.

All of which is probably going to perplex the Team mightily! They are likely going to be in a panic trying to figure out what the Base is going to run on if they throw the switch on the fusion plant.

Our playtesting has shown that most but not all Teams have gotten used to the notion that Morrow equipment and facilities run on nuclear power. They do not expect or look for other sources of power. The existence of the main power grid which does not rely on fusion never occurs to them. (In play-testing the few that found it stumbled on it accidentally.)

Yet the information is there if they will just look. The control facilities in A6 make constant reference to the MPG with an inference that makes it obvious that the two systems are separate and independent. Making the proper inquiries of the controls will cause them to reveal the location of same with directions for its reactivation. It's up to the PD to decide whether or not the Team asks the right questions (or deserves) to switch things over to the main grid.

Main Power Grid

The MPG can only be engaged with some difficulty. Controls

in both A6 and B1 must be set in compatible order (instructions for this are provided, but will the Team look for them?), Power from the fusion plant will be needed to begin operation of the MPG (it takes power to move the probe out) and to begin initial operations. But when this is done, systems in B1 will provide further direction for operation and control of the main grid.

These instructions need to be followed. The main grid does not exist in a vacuum and, while it must be activated before other things can be, other systems need to be brought up in short order; or the main grid will not function. (It will in fact break.) This includes things like getting some water into the boiler system, which can only be done after the water system has some power and brings water in from the outside. That will need to be accomplished through power provided by the fusion plant... It also includes things like deriving some cooling from the air circulation system, which means bringing the power on the air plant up.

The PD will see that everything gets very convoluted. It can be done, but it will not be easy. Success requires that the instructions be found, and that those instructions be followed to the letter.

We can't include those instructions for the PD: we have no idea what you'll have to work with by this time, how many members the Team will still have functioning. We can only recommend that the PD make the conditions for success as difficult as reasonable while still leaving a good chance for success if everything is done correctly. Getting everything right ought to be a strain, but if they do get it right, then things ought to happen for them.

The same comments apply for bringing everything else on this Level back into action (and a special section has been provided regarding the unique and piquant difficulties surrounding the water system). Personnel need to enter all of the areas on this Level to get everything working again, and they need to have at least some rudimentary understanding of what all of the equipment down here does.

Such understanding can only come from two sources; pre-Morrow experience or from "reading the instructions". Pre-Morrow experience is up to the PD. It means that there might be some chance that a Team member or two has the necessary background to recognize what some or all of this equipment is for. This would only be likely if the PC had a pre-Morrow job with the municipal water works or some such. Such training cannot have come from the Project itself!

Without experience or direction from controls, no team member is likely to make sense of all of the odd equipment located on this Level. It might be reasoned out, but only after comparatively long study. The Team might have the supplies for that but it certainly does not have the air. The atmosphere in the Base is suitable for a few days of exploration but not for months of it; and nothing less will permit an understanding of this Level without help.

The PD might also want to see to it that, once shut off, the fusion plant will not turn back on again. This is only reasonable. With all of the support systems down, with fail-safes blown, and considering the truly sad shape the reactor is in, automatic overrides would reasonably prevent the restarting of the system. A merciful PD might also warn his players of this, via controls, before the system is dumped.

But very little of this matters if the Team does not figure out that there is another source of power than the fusion plant. Once again we'll make the following points: 1. The fusion plant is about to fail due to age, decrepitude and lack of fuel. 2. Loading more systems on to it (which can be done) will only hasten the crash. 3. If the main grid is not reestablished before this happens, it will not be possible for the Team to activate the main grid at all. 4. With no power at all, the Base is uninhabitable for any period longer than a few days.

The last thing that needs to be said in this section regards conversion from emergency power to "normal" power; or the main grid. This can be effected from rooms A6 and B1. The controls for the EPG are located in A6; systems can be added to and deleted

from the EPG from there if the operator knows how. (Instructions exist in the system but must be asked for or found.) Similarly, the operational mode of the EPG can also be changed from here. The trick is that no complete listing of the Base's systems is to be found in this area. It is assumed that operators here already know enough about the Base to activate or delete systems.

The lists that Team members might need exist in B1 which is also the control center for the main power grid. Computer directions for full activation are present here but, again, must be asked for or found,

The good news is this: If the main grid is activated, the emergency system automatically shuts down and all Base systems begin to operate normally again. (But a Team can go crazy looking for the "controls" that will do this...)

ANNEX

The three Cylinders of Prime Base, along with the personnel entry area were what Base personnel generally meant when they spoke of "The Base". The Cylinders were all that was necessary for the Base to survive the War and the period immediately following, and up to a point they were all that was necessary for the Base to exercise control over the Project.

But for the Base to take a more active role, for it to have a direct impact on the post-War world, more was needed. For the Base to perform the work that even a single Recon Team might do, the Base needed facilities for "outside" work.

These facilities existed. They were located outside of the Base proper and were known collectively to Base personnel as "The Annex".

The Annex consisted of several areas. The largest single section was simply more warehousing: storage for mission equipment that would be used outside of the Base. But with this also went a need for alternate entrances and exits to get that material in and out. Decontamination facilities were also needed.

All of this also had to be concealed but accessible to the Base and reasonably safe from damage, so it too was placed underground. A tunnel was needed to connect all of this to the Base proper.

Annex Tunnel

The Annex Tunnel joins all of the peripheral areas of Prime Base together, both to one another and to Prime Base itself. The Tunnel is a bit of a marvel. For one thing, it is long. It begins at the northern end of Level 7 of Ops and finally terminates at the far end of the ridge under which Prime Base is hidden. At the point where the tunnel begins it lies deep within the rock, about 72.665 meters beneath the surface (that's more than 238 feet underground). It gradually rises from that depth until, at the far end the tunnel, it is only about 3 meters below the surface.

The route the Tunnel follows is direct but not straight; the shape of the ridge precludes that. The Tunnel heads due north for about 100 meters after leaving Ops but then turns slightly northeast (by about 3°) and continues for about two kilometers. Then the tunnel turns again to a still more northeasterly heading (this time about 50°) and continues in that direction until it ends. Thus the tunnel, while usually straight in its path, has two bends.

The far end of the Tunnel is located northeast of the Base proper at a flat spot between the ridge and the surrounding canyon walls. Flat is, of course, a relative term. Very little flat ground exists in this part of the world. This area lies a little over four kilometers from the Base in a straight line. The Tunnel is longer than that because it does not travel in a straight line.

The inside of the Tunnel is no more unpleasant than tunnels usually are. This is not a bare rock affair with rough hewn walls and moisture seeping through. The Tunnel was originally cut through the rock with lasers, then sealed and finally lined. The end product was no worse than a sub-street bypass.

It is 4.6 meters wide throughout its length. Floor to ceiling height is 2.5 meters but the floor of the Tunnel rests above the base of the Tunnel. The base lies a half meter lower than the floor. The space between the two allows for power lines and other cables.

When in regular use the Tunnel was well lit by panels on three sides: both walls and the roof. Emergency lighting was also provided. Security cameras were mounted on the walls at regular intervals and these relayed scenes back to the monitors in the Base, particularly at Post Two. Emergency drainage and like matters were also provided for but these details have little bearing on the game.

Play of the Game: Annex Tunnel

This long, cylindrical hole in the ground was not included on the EPG. So, while it has lights, they are not on. The security cameras are dormant for the same reason: no power. Other than that, there is not much to say about this tunnel in terms of the game.

There are, however, some opportunities here for the PD. Obstructing this tunnel will have small impact on the immediate game but greater consequences later on. This is the only way to travel from the Base to the peripheral areas (and all that they contain) without going outside. So the PD might want to interfere with free passage in the Tunnel. There are essentially two ways to do this: by installing doors and by proclaiming cave-ins.

Doors can be put in anywhere and can be armored and powered if the PD thinks that this is necessary. Needed machinery can be recessed into walls, locks can be whatever the PD thinks apropos. But there should not be too many doors or it becomes hard to account for them. Automated defenses would also be hard to explain. What possible purpose (other than casual slaughter of player-teams) could they serve?

Cave-ins have advantages and drawbacks. One drawback is that they cannot reasonably be placed near the Base proper: too deep in the rock. But out toward the other end of the Tunnel there might be all sorts of breaks in the line, and that could leave the Team guessing for some time where the tunnel goes. Cave-ins also allow wildlife to get into the tunnel and, in this valley, probably to nest there too. This can cause anxiety if the door to the tunnel down on Level 7 of Ops is opened and left open, (It is unlikely that anything would be living that far "down the hole". What for? It is far from any food source. But things might wander, or be chased, down that way. . .)

The PD is hereby officially cautioned against having Godzilla lurking on the far side of the tunnel door, licking his lips and waiting for the Team to open it. This is, to put it mildly, not reasonable.

Annex Exposure Modules

The Base has two of these modules and they are located near one another. Mechanically and operationally, in design and function, they are virtually identical. The only significant difference between the two is the instrument package that each serves: one carries electronic transmission and reception gear and the other sports meteorological equipment. Since each is the mirror image of the other, only one will be described in detail.

The Exposure Module (or EM) is a small complex independent of the rest of the Base save for power requirements. It is reached from the Annex Tunnel by way of a locked door set in the side of the Tunnel. Once past the door, a new tunnel, only two meters wide, leads to the module itself. This side tunnel ascends at a steep angle. The right half of the tunnel is floored with stairs, the left has a track apparatus for moving equipment or other loads. This tunnel ends when it reaches the watchroom of the EM.

The watchroom is small. It is a control facility for manual operation of the EM, should that be necessary or desirable. There is a control console and chair, an independent computer (serving the EM only) and several accessways for maintenance and

inspections. Each of the latter are reached via small doors set in the walls of the room.

These accessways lead to different places within the module. One opens on the chamber where the machinery that runs the module is located. Another fronts on the equipment shaft and, when the instrument elevator is "down", gives access to it.

At this point some explanation of what an "exposure module" is would seem to be in order.

Prime Base had several types of equipment that absolutely had to have parts of themselves located outside the Base, otherwise they wouldn't function. One example is the Base's water system. But not all of the equipment that needed access to the outside world needed it all the time. Some of it could be moved in and out of the Base.

Thus were born the "exposure modules": systems which hold pods of equipment and expose them to the outside when necessary and then bring them back in. Prime Base has two of these systems, one devoted to electronic communications and reception and the other to weather information collection,

The equipment that each EM was built to serve rests on an elevator. The elevator goes up and down to expose the equipment or retract it. Heavy doors (camouflaged to resemble rock) cover the "business end" of the elevator shaft when the pod is retracted.

Practically all of the machinery located in the EM facilities is devoted to control of the elevator and the shaft doors; very little of it has anything to do with the equipment carried by the elevators.

Operationally, the EMs were intended to function automatically, without any personnel present at the modules. They were controlled from the Ops Cylinder of the Base and were visited only for purposes of inspection and maintenance.

Both EMs are located along the Annex Tunnel about 3 kilometers from the Cylinders. The electronic transmission and reception EM is sited on the north side of the tunnel and reaches the surface near the summit of the 5,177 foot promontory. The weather EM is on the south side of the tunnel and comes up near the top of the 5,138 foot peak.

Play of the Game: Exposure Modules

These two facilities can become quite important to the game. The electronic commo package of the north EM consists of little more than antennas, but these antennas are absolutely vital to any serious use of the Base's commo facilities. These antennas were placed on the EM so that they would not always be exposed (and so vulnerable and detectable). They were raised only when they were needed and spent all of the rest of the time sealed up below the surface.

One of the reasons that these modules were located so (comparatively) far from the Base was fear of detection. If the Base was ever located by its commo emission, the locator would be targeting the antenna package and not the Base itself. (Something which PDs with RDF equipped teams might want to keep in mind.)

If the Team takes the Base and wants to do any serious communicating outside, the north EM must be raised. (Equipment in the Commo Center of the Base will, if the Team tries to use anything without the EM being up, display a message on the computer screen to the effect that "commo is not possible until the antenna package is enabled". If the Team figures out how to "enable" the package - which can be done from the Commo Center - the screen will inform them that there is no power to enable the module.) The EM cannot function until the main power grid is back on line, as neither of the two EMs were placed on the EPG.

It is worthy of note that a fair amount of the lines and circuitry that fill the space below the floor in the Annex Tunnel are there to serve the needs of the EMs. The data collected, or transmitted is carried to and from the modules by these cables as is the power to operate the EMs. A disaster which closed the Annex Tunnel and cut these lines could have terrible side effects on the rest of the Base and its operations.

If power is restored to the EMs they will be operational (unless the PD decides otherwise) as they were built with long periods

of inactivity implicit in their designs. Some of the equipment carried by the elevators may need replacement, especially those on the weather platform.

In the EM dedicated to commo there is a small chamber that the other EM lacks. This room is occupied by a manual lifting apparatus and several sections of metal cylinders which were obviously intended for connecting to form a unit. The "cylinders" are a radio mast and the "lifter" is provided for pushing the mast up to the surface and beyond (where a channel through the rock has already been prepared, but is now filled.) No provision exists for lowering the mast.

The Base had three of these and one was intended to be up at all times, the other two being spares. This mast allowed for some limited transmission but, more importantly, provided for constant radio reception. The first mast is the means by which Prime Base has been sending its random activation codes. These calls leave at wildly random intervals, so it should not be possible for a Team, or anyone else, to home-in on the Base via those signals. But, if they do, the standing radio mast will be the destination they arrive at.

The mast is not obvious from any distance. When the Base was built the EMs were sited so that they would come up through rock near the summit of their respective promontories. Their elevator doors were camouflaged to resemble natural rock and were built to "fold-in" to the shafts. The mast might have been seen then, but now, after the climatic change in the area, nearby vegetation hides the mast from view at any distance. (The mast is tall, about 9 meters tall, but so are the surrounding trees that now grow on the ridge.) Still, from close at hand the antenna might be noticed because it is absolutely straight and has no branches. It is over a foot thick at the point where it leaves the ground.

Mission Complex

As noted in the introduction to this annex section, the largest part of the Annex was used for warehousing mission supplies. This part of the Annex is concentrated at the far end of the Annex Tunnel, about 4.5 kilometers from the main part of the Base. All of the facilities of this area and the stores kept here were intended for outside use in support of the overall mission of the Morrow Project.

In its way the Mission Complex resembled an independent base, but the resemblance is misleading. The complex had many things which a base requires and it had some things that the rest of Prime Base did not, but it lacked many things too. For instance, there were no quarters present, no living arrangements at all. There were no commo facilities worthy of the name, no independent source of power, in short, none of the things that would be essential for long term operations and occupation.

The Mission Complex was intended to lie dormant until the Base entered the active phase of its existence, when it would be needed. It was the repository of all of the material and equipment that Prime Base would immediately need to begin outside operations, both in rebuilding and in supporting the rest of the Project. There were stores of equipment here that existed nowhere else in the Project inventory.

To accomplish all that was expected of it, the Mission Complex needed a lot of independence built into its design.

The Complex is quite large; it completely covers several acres. Most of this area is taken up by warehouses (referred to as bays) and tunnels. There is only one level throughout the area. The volume of space used is so large that many rock pillars are needed to hold up the immense weight of the roof.

No map is provided of this area; all it would depict is warehousing and tunnels. If the PD wants a map, or desires to add still more to this area, he can let his creative energies run free.

For the sake of clarity, the mission complex is described by area and function in the following sections.

Vehicle Bay/Motor Pool

Central to all of the other bays in the Mission Complex is this

one, its first function is to serve as the storage area for the Base's external vehicles but its other functions are myriad.

First things first. All of the Base's external vehicles were stored here. This included "normal" MPVs and other, less common equipment. The MPVs aside, the place was festooned with forklifts' trolleys, trailers, and other vehicles for moving things about within the complex and for limited distances outside. Vehicles for use *exclusively* outside of the Base included the MPVs, the FACEME engineering systems, and a load of trucks:

Vehicle	Quantity
MARS-1	1
XR-311	20
FAV	10
Commando Scout	4
Commando V-150:	
APC	10
TOW	1
81mm Mortar	1
20mm	1
ARV	4
M35A1 2 1/2 ton truck	20

These 72 external vehicles along with the sets of the FACEME engineering equipment, took up a lot of room. The vehicular bay of the Mission Complex is very large. The more so because simple storage was not all that was required of this area.

The vehicular bay was also intended to meet other needs. Of these, the first was a motor pool: a place where vehicles could be parked when not in use and worked on when they needed it. Next was the need for a "common area" with a lot of empty space: a place where all of the tunnels of the Mission Complex met and where stores could be assembled and loaded for movement outside of the Base. And lastly, there had to be a place for the door that led out of the Base, for machinery to operate them, and for monitors and other control devices for the door, for operations, and for simple traffic control and inventory! All of this was accomplished from the aggregate loosely called "the vehicular bay".

The door leading out of here to the outside is huge. It has to be: a MARS-1 has to get out of it. For the same reason the tunnel beyond the door is very wide. Perhaps that's just as well, seeing as how there's going to be a lot of coming and going from this area. (At least, there was supposed to be...)

Vehicle Decontamination

Operations in contaminated areas could result in the contamination of vehicles and other equipment whether or not personnel were exposed. Radioactive fallout or other debris, chemical agents and conceivably some types of bio weapons might settle on vehicles and equipment' rendering them contaminated. Personal contact with such equipment, or its entry into the Base, posed unique dangers. A means of decontaminating equipment, especially vehicles, was needed.

Fortunately, decontaminating equipment is not usually a difficult process. Most of the time all that needs to be done is to thoroughly wash anything suspected of having come into contact with a dangerous agent. This washing may require special compounds for "combining" or neutralizing chemical weapons, but simple soap and water (lots of water) will go a long way toward getting the job done.

Given the above, it is plain to see that a lot of routine decon operations can be undertaken out of doors. Personnel, suitably protected, can hose down, scrub, and apply necessary substances as vehicles or equipment are wheeled up. The Mission Complex has an ample supply of special equipment intended for just this use.

Things get more complicated however, when there is no "clean" outdoor area to do the washing in, or when the motor pool the

vehicles use is itself under threat of contamination. Under these conditions the options are much more limited. Vehicles and equipment might just stay away and remain contaminated, or there might be an indoor decon facility.

The Mission Complex has one of the latter. It was supposed to be used as little as possible. Normally, vehicles and equipment would not knowingly operate in contaminated environments. Routine inspection upon return would show whether or not the item in question was contaminated. If called for, the handheld decon equipment would then go into action: outside of the Base and some little distance away if at all possible. The indoor decon facility would only be used when the area outside of the Mission Complex was itself contaminated, by whatever means.

To this end the indoor decon facility had its own vehicular door leading to the outside world. It was set in the rock not far from the "normal" door to the Mission Complex. This was a one-way door in that it was intended that vehicles and equipment might enter through it, but would never exit the Base by this means. Once through this door the entrant would continue along a route that eventually led back to the parking bay of the complex.

The door to the outside was no simple affair, it was rather like an airlock. It consisted of two airtight sets of doors set seven meters apart; only one set of doors could be opened at a time. A vehicle entered through the open outer doors which then closed, the air in the chamber was then changed, then the inner doors opened and the vehicle entered the decon area itself.

The doors to and within the decon facility, and the decon process itself, were completely automated. The item to be "deconned" moved through a series of bays, each about ten meters long, where all decon activities were conducted automatically. These bays corresponded to the stations in the personnel decon facility in the entry to the Base, and switched back on one another just as those did. There are not as many bays here as there were stations in personnel decon because there is no need for them. The vehicle (or item) moved in, was washed, treated, rinsed and dried in a succession of bays. After drying the item exited the facility by means of a door leading to the parking bay.

The process is monitored and controlled from a command room centrally located with regard to the bays. All of the doors in the facility, including those that separate the bays, are controlled from here, as are the various decon operations. The command room has windows and is served by cameras to provide a view of decon operations in all parts of the facility at all times. A small crew was all that was needed to maintain operations.

Personnel were not ordinarily deconned via this facility. Vehicle crews that had not been exposed to a suspicious environment were expected to just remain in their vehicle while it was scrubbed. Personnel that "needed it" were supposed to be dropped off at the personnel entrance where they could undergo a bath.

The entire process rather resembled the automatic car washes popular in the U.S. In fact, the vehicular decon facility was commonly referred to as the "The Car Wash".

Mission Stores Bays

There are several warehouses that fall into this category. All of these were filled with supplies and equipment intended for expenditure or use outside of the Base.

The mission supplies of Prime Base were essentially identical to those stocked by the Morrow Project's automated regional supply bases had. The contents of those bases were detailed in PF-05, The Starnaman Incident and so will not be listed again here.

There are two areas in which the mission supplies of Prime Base differed from those of the regional facilities: building materials and vehicles. Prime Base in so much as it might actually form a colony, had quite a lot in the way of building supplies. Not enough for a "pre-fab" village, but much more than an automated supply base. Conversely, Prime Base was not intended to supply Teams with replacement or expansion vehicles, so it had far fewer MPVs.

Aside from these divergences, the mission stores of the Base were very like those of the regional facilities. This included not only nuts and bolts stores, but the powered equipment as well: items like medical trailers, forges, water treatment units, etc. All of this equipment was intended for "civilian" use by and in support of non-Morrow personnel. Morrow personnel were intended to deliver it, set it up, instruct locals in its operation, then leave them to it. It was not intended to remain Morrow property nor held for the exclusive use of Morrow personnel,

Aircraft Bay

This is the single largest warehouse in the Mission Complex; it has to be since the things in it are the largest pieces of equipment in the Base. This bay contains only two classes of equipment: aircraft and the gear needed to support and maintain them.

The inventory of aircraft is not large. In all there are only eight machines located here: two Hughes OH-6 Cayuses, three Boeing CH-47 Chinooks, and three Lockheed C-130 Hercules.

Both the Cayuse and the Chinook are helicopters. The Cayuse is a light recon/observation aircraft while the Chinook is a lift/transport two rotor helicopter. The Hercules is a fixed wing, four engine transport. Detailed information on each can be found in the New Equipment section.

While the inventory is not large, the space required to store these aircraft, and their support equipment, is necessarily quite large. The Chinook and Hercules types are not small machines.

At that the space used is the smallest possible, much smaller than would have been required if these aircraft were operational. Each of the aircraft stored here is disassembled. The aircraft will have to be put together before they can be used.

However, the space left open in this bay is very limited. Crates were placed in all practical places where they would not interfere with air frames or other large parts. In most places they rise right to the ceiling; it's hard to see the larger aircraft parts at all.

Perhaps the most interesting feature of this bay is the large stone ramp at its center. This ramp leads to the ceiling of the bay. It is the prime exit of the bay. Since many of the aircraft components are awkwardly large and heavy, maneuvering them about in the tunnels of the Mission Complex would prove inconvenient, to put it mildly. The only sensible thing to do was expose the aircraft bay itself to the outside. The roof over the bay, specifically that section at the high end of ramp, is supposed to be removed. The aircraft can then be moved outside a piece at a time for assembly.

Obviously, this adventure was not going to be undertaken lightly. There was no plan to begin assembling aircraft until the locale of the Base was completely secure, temporary (or permanent) hangar facilities had been built above, the airfield constructed and a host of other concerns had been addressed and taken care of. Then, and only then, was the "Morrow Air Corps" supposed to go into action,

There is very little to indicate this that the Team can see. . .

Arsenal Bays

There are several of these bays: quite a few in fact. They tend to be quite small though, averaging only a few cubic meters in volume. They are accessed via a tunnel that serves the arsenal section and that section only. This arsenal area is removed some small distance from the rest of the Mission Complex.

The distance from the main Complex and the separation into small rooms was due to the nature of most of the stores of this area, all of which tended to be more than usually dangerous. The majority of these stores fell into the "high explosive" category. Concentration of such stores is rarely a good idea. Separation and storage in independent bunkers is safer for obvious reasons.

The arsenal inventory:

M85C	50
M2HB	50
RH202	25
M174E3	50

M19A1	12
M202	25
M47 Dragon	
Trackers	25
Rounds	1000
M151E2 TOW	
Launchers	12
Rounds	1000
.50 cal. ball	1,000,000
20mm	
HEI	100,000
API	100,000
81mm	
HE	10,000
WP	1,000
Illum.	5,000
159C Rocket Pod	10
2.75 inch. rockets (HE)	1,000
M55 Bolt Rocket	100
AIM-9D Chapparral	500
AGM65D Maverick	500
 Mines	
M16A1	10,000
M18A1	10,000
M 19	5,000

Demolitions

(Note: All quantities are given in cases.)

M112 C-4 Demo Block	1,000
M183 Demo Charge	1,000
Primercord	1,000
M2A1	1,000
M1Time Detondtor	1,000
M700 Time Fuse	1,000
M7 Blasting Cap	1,000
M60 Fuse Igniter	1,000

Play of the Game: Mission Complex

The Mission Complex can play a vital part in the game but it hardly ever did during playtesting ear/y in the game. Large as it is, it's still very hard to find from outside of the Base.

There is no emergency power supplied to the Mission Complex. The area was set up for it and could accept it, it's just that the personnel shutting down the Base chose not to include the complex on the EPC. After all, there was little reason to do so.

There are a lot of doors too, most of which are locked. None of the locks are unusual but some, particularly those in the arsenal areas, are quite formidable. It is up to the PD to decide which areas are secured by locks and which are not.

the doors leading to the outside are locked. There are only two of them: the doors leading out from the Vehicle Bay and the ones belonging to the decon facility. (The aircraft bay does not have a door to the outside. To get aircraft out, part of the roof had to be removed.)

The doors that lead out of the Complex are unique in that they were designed so that they could not be opened from the outside. There are no card slots or other complications. These doors could be opened only on command from someone inside the Complex.

The Mission Complex was open during the time that Pahute Place was born. Vehicles from the Complex were used to carry Base personnel on their initial recon of the surrounding area.

Equipment and supplies from the Complex helped in the construction of Pahute Place.

150+ years after the War and the calamity that befell Prime Base there is no trace left of the Complex being active. The nuclear weapon that destroyed Pahute Place began the erasure and 150+ years of erosion has completed the job.

The doors that provided access to the Complex were set in sloping rock just below the 5,000 foot level and faced to the east. They were thus shielded from the direct effects of the blast that scoured the western side of the ridge that Prime Base was built beneath. Yet this protection and the intervening ridge itself insured that the doors to the Complex would no longer be passable. The blast blew tons of dust, sand, dirt and other debris off of and across the ridge and it came to rest on the slope of the ridge on the east, right on top of the doors to the Complex.

These doors had been built to resemble the native rock (they were in fact faced with real rock) and were difficult to identify even by people who knew exactly where to look for them. After the blast, though, they were covered with several feet of debris. Natural drainage and 150+ years have buried these doors beneath about three meters more of dirt. With the climatic change, this dirt now hosts thick and varied vegetation. There are hundred-year-old trees growing on this slope. There is no external sign of the doors whatsoever!

Nor, with all of the weight on them, can these doors now be opened from within, whether power is restored or not. The Project's hydraulics are good, but they were not designed to move this load. The covering will have to be moved from outside, at least initially.

Within the Mission Complex there is ample evidence of activity from days gone by. Several of the mission stores bays are practically empty: the supplies in them having been used to support Pahute Place. Likewise there are gaps in the vehicular inventory of the Complex. (The exact shortages are left to the PD to determine. At least one set of the FACEME equipment was lost with Pahute Place and it is reasonable to assume that some other vehicles, particularly trucks and light recon vehicles like the XR-311 and FAVs were lost too. This is a wizard opportunity to deprive the Team of the MARS-1 vehicle...) Aside from the missing stores and vehicles, there is abundant evidence of activity in many areas of the Mission Complex; all of that moving around left myriad traces.

This is a good place to point out that none of this stuff, none of the supplies in the Mission Complex, were protected in both-hole fashion. There is not and there never was a special protective atmosphere here. All of the stores and equipment in this area were stored with "ready use" in mind.

This will not matter to some of the equipment, that which is normally packed with long term storage in mind. Nor will it matter as regards areas that have been effectively sealed off for 150+ years: the same old air does little to advance decay.

Yet it is worth mentioning that the average depth of the roof below the surface in the Mission Complex was only two meters. The cumulative effects of the blast, climate changes and tectonic adjustments may have breached several of the areas of the Mission Complex. This may have happened in exciting fashion as in the case of earthquakes or cave-ins, or it may have come in more pedestrian guise via the slow progress of tree roots. The cause matters little, the effect, if it has led to long term exposure to the outside environment, will be devastating.

Exact consequences are, again, left to the PD to determine, as are the areas, if any, effected. A MARS vehicle that has had its tires exposed to the environment of the valley for, say, fifty years, will not be going anywhere on them anytime soon. Water seepage can cause a variety of interesting problems too. Nothing so crude as having the local fauna taking up residence in the area is really necessary or desirable.

TIMING

The Prime Base module is the first of its kind from TimeLine Ltd. It's long.

Prime Base fairly demands several sessions. It cannot be properly played in one sitting. And, for the fullest effect on the players, for the most complete challenge to the Project Director, the "revelations" of the module should be carefully nursed from a simmer to a rolling boil.

One might best approach running this module by thinking of it in terms of chapters. Each of these chapters should be roughly equivalent to a "lesser" module.

Chapter One is up to the PD. It requires that the Team be brought to the area of Prime Base.

Chapter Two should concern itself with locating the Base and negotiating the hostile environment that surrounds it. A lot of material has been presented here to help with that.

Chapter Three involves the actual discovery and entry of the Base. It involves getting people down inside and exposing them to the peripheral areas, maybe even the "deception" areas, of the Base.

Chapter Four is a long one. It should devote itself to the exploration of the Base and the Team's coming to grips with the enormous potential, and even greater problems, of making the Base operational again.

Chapter Five, and many more to follow, should devote themselves to this goal: the resurrection of the Morrow Project with Prime Base as the center of operations.

Within these "chapters" it will be necessary for the PD to maintain a nice balance between situations and playability. Teams may arrive at the Hidden Valley already low on essentials like food, water and rest, to say nothing of ammo and other material support. Depending on the campaign and the PD, teams may even be arriving pursued by outside, and presumably hostile, forces. The PD must nurse the team through the perils of the environment to the portals of the Base, or else be willing to kill off the characters.

Things get more difficult once the players get into the Base. The entry is set up to deprive the Team of necessary goods and equipment. The PD may have to modify this if the Team is to have any chance of survival. Understand that we are not talking about weapons and sources of light here! There is precious little to ear in the Base! Even a well equipped team has lots to worry about in an extended search of the Base.

Never let it be doubted: this module is hard. Don't make it a suicide mission that accomplishes nothing but the creation of a sense of frustration in the players. But there is nevertheless no aspect of the module which should come easily or quickly. Your players will appreciate Prime Base in direct proportion to how hard they have to work for it.

Running this module can be much like anticipating the events in a mystery novel. The players are there trying to resolve the riddles, the many riddles, of the Base. Give them hints if you have to, but the role of the PD in this module is one of neutrality, a conveyor of information that has been won by the Team.

Getting lost In Prime Base

Perhaps it's obvious by now that getting lost in Prime Base is to be expected of any player Team. Still, it never hurts to point out the obvious.

Getting lost in the Base is to be expected. PDs should keep in mind while running this game that they have information which

the players utterly lack. There are some subtle nuances to this.

The PD knows, for instance, that there are three cylinders in the Base, arranged so that they are connected triangularly. The players do not know this. If they move from cylinder to cylinder, will they realize the relationship of one cylinder to another? Will they even recognize the "tower-like" properties of the cylinders? Or will they, as they move along, assume that they are in some vast, underground complex that was laid out randomly? Remember this: your players have no idea of the pattern of the Base. They'll learn of it only through experience.

During play-testing we had teams wandering in circles around the cylinders who were certain that they were covering new ground all of the time! This is understandable from a player's point of view. It's *dark* in the Base. Details that might trigger recognition or hold the attention do not stand out. There are no landmarks to navigate by, no signs or other details which might help. Until carefully examined, one cylinder or level is very much like the next.

Some player teams fell back on that old, hackneyed role-playing dodge of "drawing a map". This may work in other games, but there are some problems with it in Prime Base. The first is seeing well enough to draw a map. The next is location and acquisition of materials to produce said map (a notebook and pencil are dandy, but who's still got one?). Then there is the problem of determining what to draw on the map! Do the players know that the levels of the Base are all circular in nature? Remember that this never shows from, say, the Trans Core. At most one sees some curving walls. If a map is being drawn by someone who is seeing nothing but square rooms and straight lines, some very peculiar notions of the Base's size and shape will result.

But the final, insurmountable problem with a map in Prime Base is this: hardly anyone ever thinks to begin a map until they are already in the Base and effectively lost. A map composed under these conditions might be good enough to allow a team to retrace its steps to where the map began, but it is no help at all for getting out of the Base or for other uses. In time such a map may grow useful: if it's accurate, if it covers enough places, if the players draw the right conclusions from it. But it's much more likely that the players will die of thirst before this happens.

In the meantime, the PD should require his players to role play. If the Team Leader sends somebody back to some other part of the Base, that somebody had better have either a good map or a precise memory of the route! Don't let the players just say: "Well, we're going back to the place where . . ."; make them tell you the route they are going to travel with all of the twists and turns, stairs and tunnels. If they can't do it, they're lost.

Connecting Tunnels

Prime Base, being built in three separate subterranean cylinders, is isolated in its parts. The cylinders are independent of one another and nowhere do they touch. Yet movement between the cylinders is possible because of nine tunnels that link them.

The cylinders of the Base are sited in such a way that each forms one of the corners of an equilateral triangle. This means that all of the cylinders are exactly the same distance from one another. The nine connecting tunnels form the sides of the triangle. The triangular arrangement also means that, while there are only nine tunnels, each cylinder has six tunnels leading to and from it.

The tunnels do not connect all areas of the Base. They are only

present on three levels: the first, seventh and thirteenth. There are three tunnels, which connect each of the three cylinders to one another at each of these levels. Therefore, access at other levels between cylinders is not possible as there are no other connecting tunnels.

When built the tunnels were wide and well lighted. Each was a uniform 4.6 meters (about 15 feet) in width and 2.5 meters in height. Glow panels overhead and on the sides of the tunnels provided abundant light.

The tunnels found at the first and thirteenth levels of the Base are not terribly long: a mere 14 meters from one cylinder to the next. Due to the shape of the cylinders though, the tunnels connecting the seventh levels of the cylinders are longer: 34 meters from cylinder to cylinder.

Play of the Game: Connecting Tunnels

The connecting tunnels can play an important part in the game, more so than is immediately obvious. The tunnels are the only means of moving between cylinders in the Base. This means that a player on, say, Level 9 of Life who wants to go to Level 9 of Support, must use a tunnel. But there are no tunnels on Level 9. The player must first go up to Level 7 or down to Level 13 (or if he likes the exercise, up to Level 1) to find a tunnel that will take him to Support.

Thus the tunnels serve to channel all inter-cylinder movement in the Base. Use of the tunnels to get around is essential but they are hardly ever conveniently placed. This can be made worse.

The "Official Word" on the tunnels is that they are all still open, even 150+ years after the War. They are dark as their emergency lighting gave out long since. They are clear of obstacles and there are no doors blocking them. These tunnels were always open and no provision was made for sealing them: they were absolutely indispensable for the air circulation system of the Base. Sealing them would have killed off everybody in the place.

But as the PD you might have other ideas. The exploration of the Base will take longer (and be less certain of completeness) if some or most of the connecting tunnels are closed. This is especially true if only two tunnels remain open and these are at opposite extremes in levels. This prevents the "circling" of the Base possible when all of the tunnels are open and may prevent the Team from ever finding all of the cylinders.

Example: Since the players will likely be entering from Level 1 of Ops, close (or delete) all of the tunnels leading to other cylinders on Levels One and Seven. Close all but one on Level Thirteen. Leave one tunnel, say the one to Life, open. Again, close all of the tunnels in Life save the one to Support on Level 1 of Life. Finally, in Support the only tunnel that should be left is the one by which the Team entered. Not that this uses only two connecting tunnels in the whole Base.

This procedure is recommended only for those PDs who are blessed with competent and capable players. Otherwise this "you can't get there from here" routine is near certain to keep the Team from learning the full extent of the Base.

The other effect his procedure has is to slow down movement within the Base even after players have more or less explored it; there are no convenient ways to move between cylinder, one must take the long way around.

Lastly, this procedure can confuse the Team for no small amount of time concerning the exact size and shape of the Base. Few Teams, when subjected to this cruelty, retain sufficient sense of direction to realize that the Base is laid out in a triangle. At least one play-test Team formed the opinion that Prime Base was a series of cylinders laid out in a straight line: and they were darkly suspicious of fourth, fifth and perhaps more, cylinders. They spent a lot of time looking for them too.

Krell

As it happens, the Grand Deception of Prime Base was never put to the ultimate test. The minions of Krell never came to investigate in any detail.

The "Warriors of Krell" are an unattractive lot. They know about the Project, they do not like it, and they are depressingly direct when it comes to implementing policy.

Krell did not know that there was a Prime Base, but from what he knew about the rest of the Project, he quite reasonably (and accurately) surmised one. But then, Krell was unaware of the sheer size of the Project.

Krell, and his warriors are subject to what we might call the gangster mentality. They do not build, they seize. They do not create, they prey. He and they are parasites. Were it possible to isolate them from the rest of humanity, they would die out within a generation.

Krell had his people on the lookout for something like Prime Base from a time before the war. (Mr. Krell was not a direct party to this. He was safely asleep in a stolen freeze tube. Minions are expendable.) There were a variety of people in a number of areas looking for signs that would indicate the presence of a Morrow command and control facility. Most of them did not last out the War or the troubled times that followed. Of those that did, only one hit "pay dirt."

It was only over a period of time that the Krell operatives in the vicinity of Prime Base realized that they had hit the jackpot. Their orders were to take the Base intact if possible, but to destroy it if that were not. This led to the double whammy of the nuke and the bio. The bio weapon was to take the Base intact, the nuke was for the other alternative.

It may be true that there is honor among thieves, but that has nothing to do with gangsters. The Krell operatives on the spot reported regularly to their "home base"; that's how they got the nuke and the bio weapons. And while Krell himself was not available to oversee the operation, his lieutenant was sufficiently well schooled in the craft not to trust his field people. He had another group of people, all the way across the Black Rock Desert, monitoring the situation, reporting what they saw and heard, and ready to move in on command. Gangsters are an untrusting lot.

And so, when the time came, the Krell operatives on the site reported that they thought that they had successfully introduced the bio into the Base. But then word came from the other operatives that a nuke had gone off in the area.

This did not discommodore Krell HQ. Intact or destroyed, it sounded like Prime Base had been dealt with. No tears were shed for the team that was lost in the explosion. The overwatch team was told to go and investigate. Gangsters are careful as well as untrusting.

The investigating team did not get too close, but they did circle all around. They sent back a report that was very graphic about the hell the area had become. They also expressed the opinion (quite reasonably) that nothing could be alive in there.

HQ, also quite reasonably, credited the report and noted that Prime Base was destroyed. They also awarded themselves a hearty pat on the back to go with their "mission accomplished."

Some years later, Krell, during one of his thaws, sent another group out to look over the area. These people encountered the valley pretty much as it is in this module. The two survivors of that effort reported that conditions now were even worse than those that had been reported previously. They also noted that they had never reached the Base itself, as the conditions of the surrounding area had prevented it. Krell was pleased. He had the two survivors tortured and executed for failing their mission and then turned his mind to less pleasant things.

Thus neither Krell nor any of his people ever actually got to test the Grand Deception. Prime Base has been written out of Krell's books. But, if there comes to be a lot of activity in that area again, and Krell and the Boys notice it, well, they know just where to look. Not exactly, not well enough to target a missile (if they have any left) for a direct hit, but certainly well enough to mount an expedition that will not have to hunt to find the Base.

We at TimeLine have received a lot of mail and even a few calls that must be addressed before we begin talking about this module. All of these contacts have made the same inquiry: Is it over? Is Prime Base the end of the Morrow saga? (And, flatteringly, everybody has expressed regret at the idea and pleaded, with some passion, for more Morrow material.) Not to worry.

Prime Base is not the end! We are not abandoning the Morrow Project with its publication. There will be more, probably a lot more, in the future. But we'll get back to that later on in this section. Having said this much, it's now time to get back to talking about Prime Base.

Prime Base is what you might call a weighty module. Even the most cursory glance through this scenario will yield the impression that this module will make life difficult for those who play in it. This is no accident. We have weighted this module so as to make it as difficult as possible, while still leaving some chance for a Team to succeed.

The weighting is extreme; the chances of success are not high. In fact, while there is no one obstacle sure to eliminate the Team, all of the obstacles are difficult to overcome; and not all have ready solutions. The combination of all of these difficulties reduce the chances of success still further, to a point where the likelihood of success approaches zero. As written, it will take a marvelously skilled Team, encountering no accidents and making no mistakes, to "win" at Prime Base. This is, to put it mildly, not bloody likely.

It will rest with the PD to run this module and to determine just how difficult a time his players are going to have, and so we include this warning: If you run it as it stands, your players probably won't do well. (In fact, they'll probably perish to the last man...) We therefore encourage the PD to "tailor" this module, and especially its lethality, to suit his own needs.

"But, it you're going to do that, why did you bother to make it so hard in the first place?"

The answer is simple: this is Prime Base!

Prime Base! Finding it, entering it, exploring it, using it, none of this should be easy! It must not be easy!

Every discovery made, every inch travelled, every victory gained, should cost the Team something. Oh, this need not be blood and death (but if that is called for, then so be it); there are many ways to pay the price. Sweat and exhaustion, fear and terror, hunger and thirst, confusion and hopelessness, all, and more, are acceptable coin for possession of heart's desire: having Prime Base. But nothing less is.

No Team, no matter how skilled, should "walk" through this module. The Team that "pays cash" for Prime Base will value it, Teams that don't, won't. So make sure that your people have a rough time of it; or don't make it at all. The having of Prime Base is not to be counted lightly, strung absentmindedly among other achievements, and considered of no great value. When your players talk about the taking of Prime Base in games to come, they should speak of it reverently and regretfully: proud of what they've accomplished, but wholly unwilling to ever pay such a price again.

And remember: they'll only do that if it was hard, and it will only be hard if you make it that way.

We've tried to help with that, we've dreamed up some real honeys to give you a hand. At the same time, we've kept out all of the "sure kills" that it would have been so easy to include. We have, in short, given you the tools; but it's up to you to use them. (Which is as it should be, else what are role playing games for?)

Aside from that, we're glad to be done with Prime Base. It's a good module; we're not only happy with it, we're Proud of it. But it took 'way too long to produce and has soaked up too much time. It wasn't supposed to be that way.

Prime Base was supposed to be about the same size and to sell for the same price as all of our other Morrow modules, but things got out of hand. As the design and writing continued, the place kept growing. We kept running across more and more things which just had to be in Prime Base if it were going to be realistic. And everything we included seemed to require at least two more things to support it, etc, etc, ETC! And of course, as the size increased, so did the price. There was no help for either one. A shorter module would not have been complete (and we hate to see things like: "To be continued in the next installment, which you will have to fork over more cash for...," so we didn't do that), and so we went for "the whole ball of wax in one swell foop... We're not happy about that, but we just didn't see any other good way to do things.

Nor is the size and price of this module the wave of the future; at least not from us! We expect to return to our normal sizes and prices for most future releases for the Morrow Project. There will be exceptions. The first of these, the Amerind Empire, has been in the works for years and we're just about to get on it seriously. But that's a full campaign and of a size with Prime Base, so its not in the same league with the other modules.

As mentioned in the text, there are a few other points that need to be made with regard to the Phoenix Team and Prime Base. These apply to the game only if the PD has included them, but they are important too, to the "long term strategic plan" of TimeLine and The Morrow Project.

For purposes of the continuing game/campaign of the PD, the Phoenix Team provides an ideal way to pry the player team loose from Prime Base: something that might otherwise be difficult to accomplish. The Phoenix Team can and will find things outside of the Base for the players to do, when they're up to it. (No matter what the players do, Phoenix will not "evict" them into the Valley: it's too nasty out there. Phoenix men are not cruel; they're the opposite of cruel. It's kinder to shoot a man than to send him helpless into that Valley, so the Phoenix Team would shoot them first. A healthy, properly equipped Team is another matter. If the Mission calls for the crossing of the Valley, or working in it, it's a whole 'nother ballgame. Everybody in the Project is a volunteer, right? Nobody said it'd be easy, right?)

The Phoenix Team needs to get a lot of work done, a lot of specialized work. There is every reason to expect that the poor player team will lack the necessary skills to be helpful in that work. But there is also a lot of non-specialized (and potentially dangerous) work that needs to be done too. Not glamorous, probably beastly difficult and manually demanding, but it needs to be done.

Examples include, but are not limited to, the opening of the heavy equipment accessway of the Base. This will have to be done, at least initially, without the aid of heavy, earthmoving equipment. (We need to get the doors open so we can get the equipment out that we need to get the doors open ...) Blasting will not do: too much chance of wrecking something or making the situation worse.

When that's done the air field of the Base ought to be built. There will be equipment for that, but the plant growth is heavy ...There is several weeks worth of labor with chainsaw, det

cord, axes and shovels before there is enough of a clear space for the heavy stuff to operate at all. Building the airstrip will be a problem too, as will erecting something like a control tower (no point in doing things halfway, what?). But an airstrip is useless in the Valley as the Valley now exists: something needs to be done about "terra-forming" the Valley.

That will, of course, call for a detailed survey of the Valley and the surrounding area. One of the Phoenix men would necessarily be a part of this, unless the Team is unlucky enough to have among its members a qualified surveyor. And a complete survey is necessary. One cannot rely on pre-War maps and information, too much time has passed, too many changes have occurred. The Team's own testimony will bear that out.

Chances are that the Phoenix engineers will decide to place a series of explosive charges, all obscenely large, in the wall across the Valley that was formed by the nuclear detonation 150+ years ago. These charges should be placed by an expert, which probably rules out anybody in the Team, and the positions of the charges should be calculated by an expert (ditto for the Team), but the fact is that, to have the best effect, those charges will need to be placed in deep holes which will have to be dug: enter the Team.

Blowing the wall across the Valley will improve things, but not all at once. The Valley environment has been growing for 150+ years: it will take a few years for it to get back to normal, if it every does. But there is a lot of work that will need to be done in the mean time. It is reasonable to assume, for instance, that the Phoenix Team will feel that an alternate, perhaps even a *primary* airfield, ought to be constructed outside of the area all together. Who better to provide "donkey labor" than the player team?

About this time a Team member might be thinking longingly of a simple, relaxing firefight with the minions of Krell. (They might miss after all), Not to worry though, the Phoenix people running the Base have a lot of jobs to do away from the Base, too. Is the player team a Recon Team? It is an iron clad certainty that the Phoenix CO would, upon examination of Base records, just love to have an in-depth analysis of some area somewhere. Why not send the Team? Similar rationales can be found for any kind of Morrow Team. There's more work than there are Teams everywhere.

All of which leads us to "strategic" considerations. TimeLine is planning many future Morrow Project modules on the premise that Prime Base is now active and being run by the Phoenix Team. (Not *all* future Morrow Project modules are based on this assumption, but many of them are.) The following section is included for the PD, to appraise him of things we have in the works, so he won't be surprised.

We've been working on a campaign module for several years now. It's called The Amerind Empire and we've mentioned it now and then in other publications. We are not going to give away the substance of the module here, but we are going to plant a set up with you now.

Our rationale for Amerind is the reactivation of Prime Base. In our in-house Morrow World, the Phoenix Team, despite superhuman efforts, does not manage to find anyone to relieve them of their job of shepherding the Project. Not close enough anyway. (There are people who could, but they're too far away. The air assets of the Base are fine, but, even if they have the range to get to where they need to, where would they land? There are no airports anymore, etc., etc.)

Close investigation of the status of the Project will reveal that there is no longer any hope, none at all, of resuming the Project as originally envisioned. It was supposed to do things with only a few year's worth of time separating Activation and the War. It was supposed to make all possible use of pre-War resources. That was what the plan was all about!

That is now impossible. Too much time has passed. Fortunately, we are talking about the Phoenix Team here. Anybody else might (and should) throw up their hands in despair. The Phoenix is going to continue the Mission or die trying.

Their reasoning is as follows:

1. The Grand Plan of the Project was to resurrect all of the U.S. at once, spreading out from everywhere.
2. This would not be easy, and would take years, but it would be possible with so much in the way of pre-War equipment, and especially trained people to work with.
3. This is no longer possible.
4. But the *principle* of the Project need not die!
5. With proper planning and management, what is left of the Project can *still* make it all come true. It will just take longer. (It may take a lot longer. So? Are we going anywhere? Do we have something else to do?)
6. The new plan is this: Instead of spreading out from everywhere, we will spread out from only a few places, taking our time, building as we grow.
7. Eventually we will accomplish the Mission; or our descendants will.

That's the overall plan. The nuts and bolts of it, how it affects the Game, is as follows.

Northeast of Prime Base, just a few hundred miles away, lies the Snake River Valley in what is now Idaho. It is not terribly large, not as these things go, but in terms of what one man can encompass, it is immense. It is one of the most hospitable regions of North America. Most of it escaped the worst effect of radiological, chemical and biological contamination during the War. It is, in short, a good place to start over, to begin again,

This is the premise of the Amerind Empire. The Phoenix Team, after due deliberation and research, is going to issue The Call to all active Morrow Teams and Morrow Colonies:

Hello, hello. This is Prime Base. (A brief explanation of the situation will follow.) We cannot support you directly. But we offer you this opportunity: Come to us! Mount up! Leave your homes. Assemble your families. Gather the clans. Hitch up teams, build wagons. Come to us!

Come to the Snake River Valley in Idaho! We will meet you there in one year. There will be schools. There will be hospitals. There will be free land! We will be building them while you come. One year from now. Come to us!

The Phoenix Team plans to move as many of their people as they can to that area, to spend a year recreating civilization for settlers to come to. This will be the first of the areas that the Project will spread out from. They're going to need that year. Amerind Empire is a campaign module about the Migration, It is based on the premise that Morrow Teams from Damocles, Operation Lucifer, The Ruins of Chicago, The Starnaman Incident and Operation Lonestar, will all *independently* pull up stakes, gather people and head across the wilderness toward the Snake River Valley. In the process most of these groups will be crossing the Amerind Empire and that is what the campaign is about.

For now, for Prime Base, we point out to the PD that this gives you a lot of latitude in planning. The Player Team may be sent up to the Snake Valley to look it over. Or maybe the Player Team needs to head East to carry the word personally or to troubleshoot some specific problem. There are lots of possibilities.

But you've got everything you need now.

Good Luck!

OH-6 Cayuse

"OH-6 Cayuse" is the US Army's designation for the Hughes' corporations Model 369 helicopter. This is a light aircraft designed primarily for observation/reconnaissance, though in some configurations it has a limited direct combat capability.

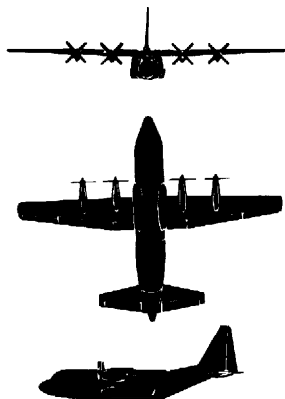
OH-6 Cayuse

Crew:	2-4
Length:	9.24 meters
Rotor Diameter:	8.03 meters
Height:	2.48 meters
Weight (Empty):	524 kg.
Design Take Off Weight:	1089 kg.
Overload Take Off:	1225 kg.
Cruising Speed:	230 kp/h
Range:	2511 km.
Armament:	(see below)

The Cayuse is a small helicopter. Its internal dimensions are strictly limited and it cannot be internally modified to carry long loads, nor even stretchers. Only one pilot is required to fly the OH-6, though a crew of two is recommended for long flights.

This is a "true" helicopter, as opposed to the Project's Airscout. The Cayuse can hover as well as take off and land vertically. These vertical capabilities, its small size, and its commercial availability made the Cayuse the logical choice for the recon chopper of Prime Base.

The OH-6's of Prime Base are not armed. The Cayuse can be armed and many military versions were. The most common arrangements were 7.62 GPMG mounts on the skids, either a single gun or a pair. Some even mounted 7.62mm mini guns; though the weight of the mounts, weapons and ammo reduced the performance of the machine, and the rate of fire of the guns coupled with the limited ammo the chopper could carry rendered this combination only marginally useful. The DEFENDER, a very similar helicopter (essentially a strengthened model of the OH-6), mounted many other forms of weaponry up to and including TOW antitank missiles.

**C-130 Hercules**

Crew:	4
Length:	29.79m
Width:	4.5m

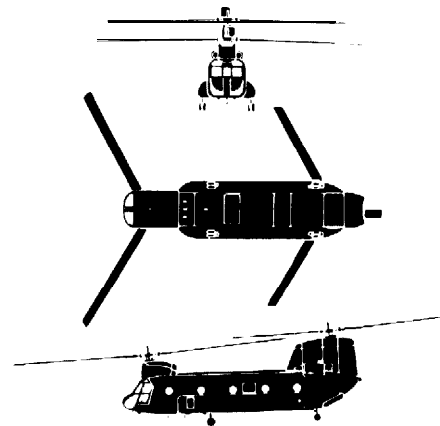
Wingspan:	40.41 m
Height:	11.66m
Weight (Empty):	3,4170kg
Weight (Max. Take Off):	70,307kg
Landing Gear:	Retr. Wheels
Max. Speed:	648kph
Max. Cruising Speed:	621 kph
Range	8,264km

The C-130 (civilian designation: L-100) is one of the workhorses of the world's skies. It is a versatile, medium to long range transport aircraft.

The internal dimensions of the plane's hold are: 12.62m long by 3.12m wide. The wheels of the plane do not interrupt this space, being mounted in blisters on the outer side of the fuselage. The aircraft can be loaded via the rear door of the plane, which lowers and forms a ramp to the ground.

This large, four-engined aircraft is nevertheless capable of landing and taking off from relatively short runs: 750 meters being the usual minimum distance. Unlike most fixed wing aircraft, the C-130 does not demand a runway for landing and lifting; it was designed to "get up and down" from any reasonably flat and clear stretch of ground.

The Hercules can land to offload, or can deliver loads via parachute by opening the rear ramp in flight and pushing the load out. This plane has been used extensively for deploying paratroops.

**CH-47 Chinook**

Crew:	2
Length:	30.18m
Rotor Diameter:	18.29m
Height:	5.68m
Weight (Empty):	9,599kg
Weight (Max. Take Off):	20,865kg
Landing Gear:	Retr. Wheels
Max. Speed:	267kph
Cruising Speed:	246kph
Range:	2,142km

The Chinook is an unarmed transport helicopter designed for moving heavy loads: note that it can carry its own weight. It is a very large, twin rotor helicopter. The dimensions for the helicopter given above largely reflect the rotor area of the 'chopper but the body of the aircraft is not too much smaller. A true helicopter, the CH-47 can lift off and land vertically provided there is sufficient clear space to do so.

The helicopter can carry loads or passengers within its body. The back of the body is a door which can be lowered to form a ramp to the ground. The Chinook is also equipped with a winch/loadpoint in the center of the bottom of the body. This allows the helicopter to carry loads externally, slung beneath the helicopter in flight. The helicopter's ability to hover makes the loading of such external loads possible. This is also a useful rescue feature.

FAMILY OF MILITARY ENGINEERING CONSTRUCTION EQUIPMENT (FAMECE)

This impressive moniker belongs to an even more impressive engineering equipment system. The basic idea behind the system is this: there really is no need for a lot of specialized construction equipment, only a need for versatile construction equipment. Why have a dozen different vehicles for a job that one properly designed vehicle can do?

Road building and other heavy construction efforts usually involve some or all of the following pieces of heavy equipment: compactors, dozers, scrapers, loaders, dumpers, graders, water distributors and cranes. As a rule, there is a separate vehicle/system used for each of those functions.

FAMECE performs all of these functions with one vehicle and a lot of attachments.

The heart of the system is the power module; a giant tractor to which subsystems are connected. The power module stands nearly two stories tall and is a powerful, four wheel drive prime mover for the rest of the system. By itself this power module cannot do much; just roll around and maybe pull a trailer. Enter the "peripherals" of the system.

These are best thought of as trailers, but the power module only pulls some of them and pushes the rest. These include a scraper, dozer, loader, dumper, crane, water distributor, compactor and grader. The power module is attached to any one of these "accessories" to perform the task needed. The only limitation on the system is that the power module can operate only one accessory at a time.

Such a system is simply ideal for Project construction crews that are not likely to have all that many people. Under those conditions it's just not that important how many machines are working at once: one at a time will do, and that may be all that can be managed anyway. The glory of the system is that the parts are available to handle most any job.

FAMECE was originally developed for the US Army; which did not particularly care for the concept (made too much sense or something). Morrow planners, when they found out about the system (undergoing trials for the army from about 1972), quietly put in orders for as many as they could lay their hands on without arousing suspicion.

This did not turn out to be too many. There were enough that some Morrow engineering teams were equipped with them, and a few more were allotted to regional support bases. The largest single hoard of FAMECE systems was located at Prime Base: four complete sets of "accessories" and eight power modules (retrofitted with fusion power plants). These were enough to suit the Planners, though they would have liked still more. It was, after all, planned that "normal" construction equipment could be found and pressed into service to augment the limited numbers of FAMECE the Project had.

The large number concentrated at Prime Base was put there because of one of the other lovely features of the FAMECE: each of the parts of FAMECE was light enough that it could be air-transported aboard a C-130. Thus the system afforded a way for

the Project to place heavy construction equipment where it was most needed, by air. It might take many sorties, but this gave a means to provide heavy support where none was available locally.

When the Team enters the Base there will be seven power modules and three sets of peripherals left in stores. One power module and a full set of accessories was used to help with the construction of Pahute Place, was not recovered, and was lost with the colony.

Unless the Team has a construction engineer with them the significance of this equipment will probably be lost on them. The Phoenix Team, however, knows all about this gear, has men who can use it, and will employ it in a most effective fashion. Building an air strip or clearing sections of the valley all become possible with FAMECE to lend a hand, as does the Snake River Valley project.

PDs should keep in mind though, that this equipment is all big and heavy. These are not dune buggies! Any one piece of this gear will dwarf a V-150. FAMECE is serious construction equipment that is not to be treated lightly or abused with impunity by those who do not understand it.

Notes On Prime Base Air Assets

The aircraft in Prime Base, whether the Cayuses in the heliport or the aircraft in the Mission Complex, are in no shape to fly. The one set has to be overhauled so extensively that the effort amounts to rebuilding, the other group has to be assembled and tested. Neither is a job for amateurs, however well intentioned.

There are a few members of the Phoenix Team who are qualified to perform or oversee such operations. There are also extensive and detailed manuals and instructions for performing both jobs, and these might be found by the Team. If they are followed exactly, there is a good chance of getting one or more of the aircraft operational.

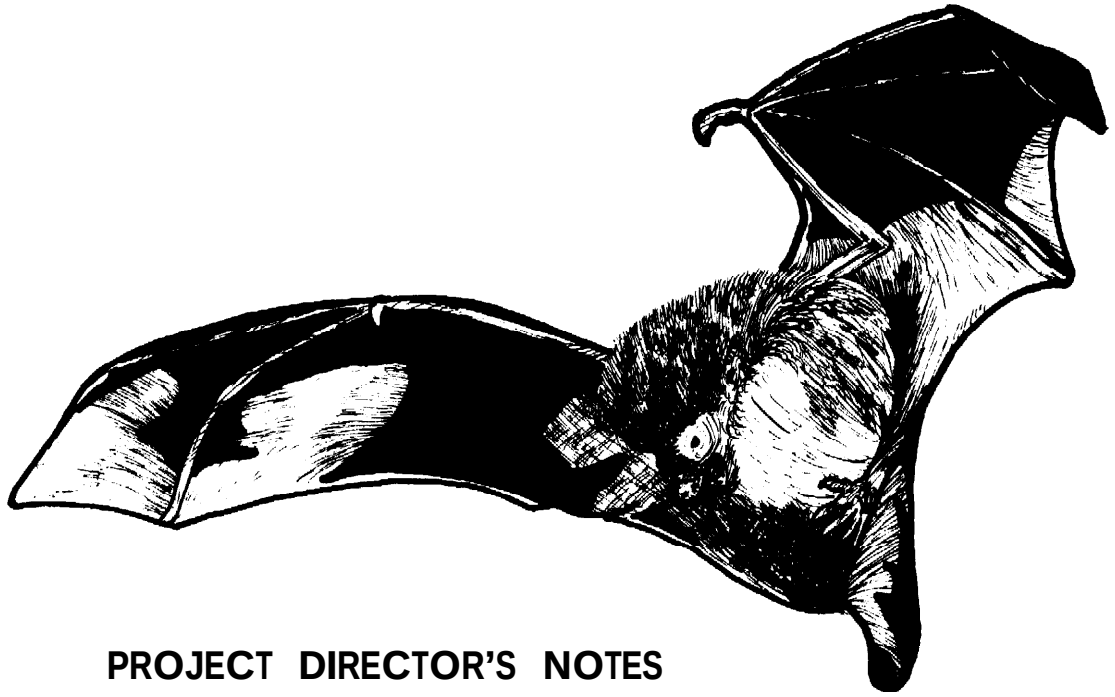
But whoever does it, the effort will take time. Rebuilding an existing Cayuse will take not less than two weeks. Putting together any of the aircraft "from the kits" will take longer; in the case of the C-130, much longer.

The outside environment is actively hostile and crowded, wherever the ground is level, with tall, dense vegetation. No aircraft could be built outside until a large area of ground was cleared. It would also be a good idea to construct hangars or other shelter at the same time, as aircraft will not last long unprotected in this environment. When the Base was built, materials for this were included in the Mission Complex but most were used up during the expansion of Pahute Place. Some are left; about enough to roof over a few shelter if someone thinks of carving up rock to provide walls.

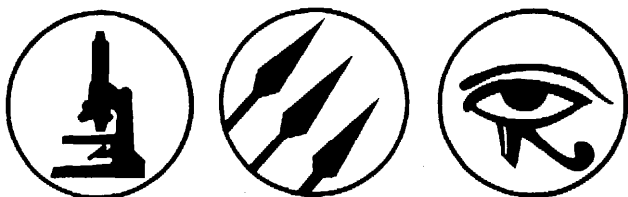
Perhaps the Team members can refurbish or build aircraft from manuals and instructions. They cannot learn to fly them that way, not these machines. None of the air assets here are what you'd call simple: all require good training and real piloting experience to handle properly.

About half of the Phoenix Team are pilot qualified and several can handle even the two big types. Yet the Phoenix Team will be doing very little else if they try to build, maintain and man this tiny air fleet. In fact, they won't do it. They are, at most, likely to revamp two of the Cayuses and build one each of the Chinook and Hercules, and that not soon. All of that outside work has to be done first.

This is true despite the fact that the Base's aircraft are fusion powered. In theory, any of them could fly around the world without stopping. They might make it, too, if the crew can stay awake, if weather doesn't knock them down (no weather reports anymore), if something in the aircraft doesn't break, if any of the crew has the necessary skill to navigate such a trip. The Range stat of the aircraft is based on the maximum advisable distance for a one-way trip, taking all of the above co-factors into consideration. Fusion power is wonderful but it means nothing to a fatigued crew, a lost navigator or a poorly maintained machine. Machines that are flown too hard will not last.



PROJECT DIRECTOR'S NOTES



- 7001 Team Member w/ Stoner M22 & LAW
- 7002 Team Member w/ M16A1 & M203
- 7003 Team Member w/ M10 & Dragon
- 7004 Team Member w/ Atchisson Shotgun
- 7005 Team Member w/ MAG-58 Machinegun
- 7006 Team Member w/ M10A Shotgun
- 7007 Team Member w/ Stoner M23 Carbine
- 7008 Team Member w/ Stoner M207
- 7009 Team Member w/ M9A1-7 Flamethrower
- 7010 Team Member w/ M60 Machinegun
- 7011 Team Member w/ FIM-92A & M10
- 7012 Team Member w/ M10 Submachinegun
- 7013 Team Member w/ Mk2 Laser
- 7014 Team Medic w/ Stoner M22 & Medkit
- 7015 Team Medic w/ Large Medpack
- 7016 HAAM Suit w/ Mk1 Laser & 20mm Rifle

MORROW PROJECT™ MINIATURES

THE MORROW PROJECT IS A
TRADEMARK OF TIMELINE
LTD MARK USED UNDER
EXCLUSIVE LICENSE

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Castalia, OH 44824
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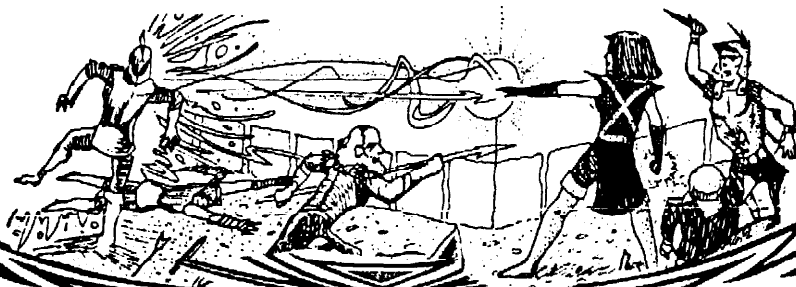


WARNING;
These figures contain
lead and are not
suitable for children
under the age of 10.

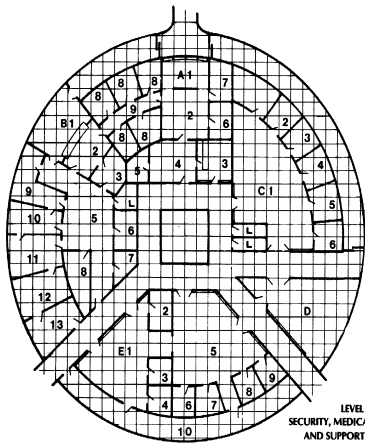
FANTASY ROLE PLAYING BY MAIL: YOU direct a party of up to fifteen fighters and magic users (humans, elves, dwarves, fairies, gremlins, even trolls) through a dungeon maze killing monsters, gathering treasure, and hunting for magical prizes.

There are currently six levels (ultimately there will be nine) and over 400 players already exploring the depths. This game has been extensively play-tested, and has been running since 1982. The per turn fee is only \$2.50 and for this one fee you get to move all 15 of your characters. They can stay together or split up into several parties moving in different directions, all for one single turn fee! No "extra action fees" ever. Our game is completely computer-run, so no human referee interferes with your enjoyment, and there are seldom any errors. (If we DO make an error on your turn, we will refund DOUBLE your turn fee!)

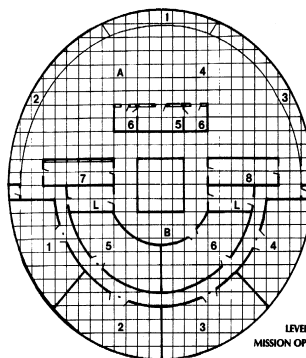
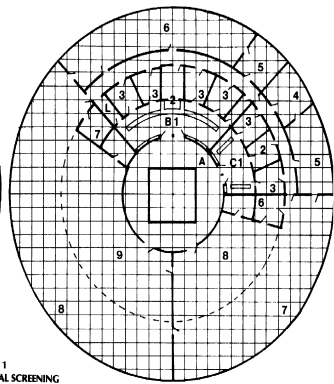
Flying Buffalo Inc has been running play by mail games for 17 years. We are the very first professional pbm company. We are members of the Play By Mail Association and the Game Manufacturers Association. In addition to Heroic Fantasy, we have science fiction games, war games, medieval games, and the official pbm version of the ILLUMINATI card game by Steve Jackson Games. Write today for a free copy of our pbm catalog, or send \$2 for the rules to HEROIC FANTASY. (Please do not ask to be in any game until you have seen a copy of the rules). Flying Buffalo Inc, PO Box 1467, Scottsdale, AZ 85252



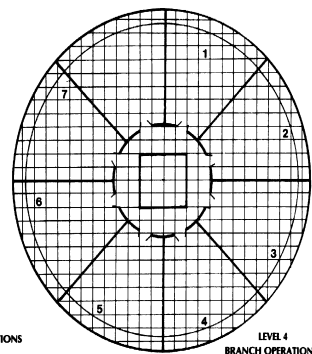
OPERATIONS CYLINDER



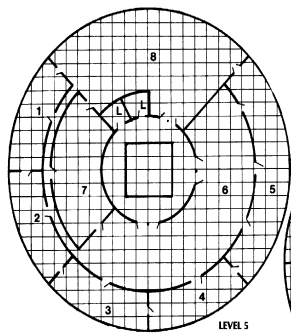
LEVEL 1
SECURITY, MEDICAL SCREENING
AND SUPPORT SERVICES



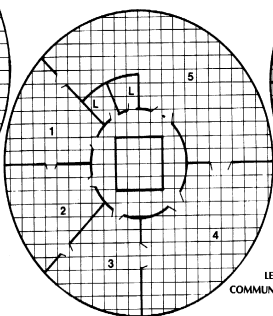
LEVEL 3
MISSION OPERATIONS



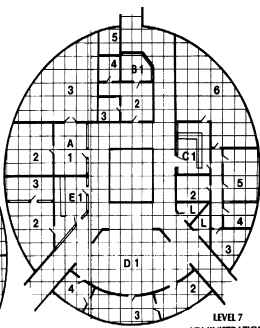
LEVEL 4
BRANCH OPERATIONS



LEVEL 5
COMMUNICATIONS
INTERCEPT CENTER

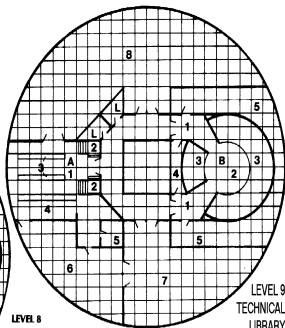
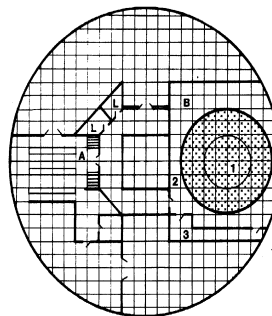


LEVEL 6
COMMUNICATIONS

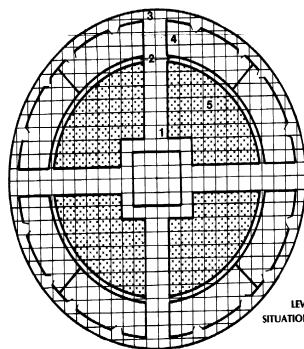


LEVEL 7
ADMINISTRATION

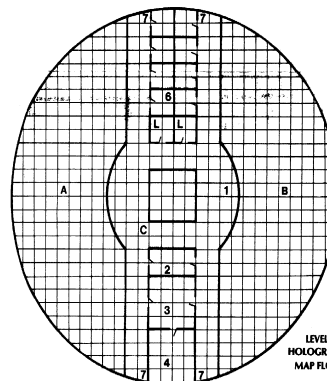
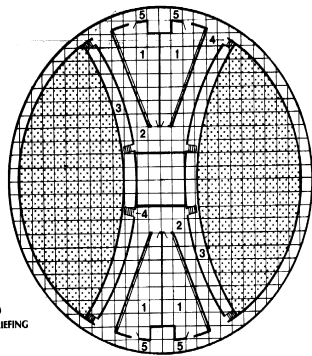
LEGEND
Scale: each square equals 2.2 meters
L: latrines



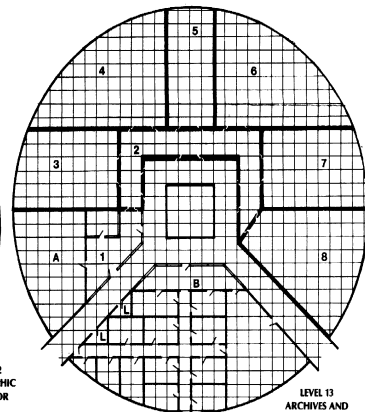
LEVEL 9
TECHNICAL
LIBRARY
AND WORLD
HOLOGRAPHIC MAP



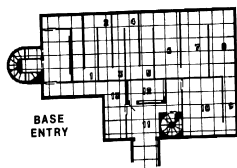
LEVEL 10
SITUATION BRIEFING



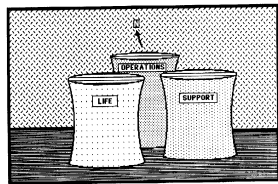
LEVEL 12
HOLOGRAPHIC
MAP FLOOR



LEVEL 13
ARCHIVES AND
ATLANTIS PROJECT LIAISON

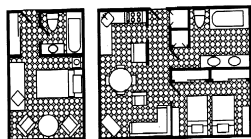
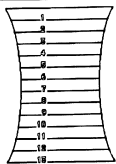


BASE ENTRY

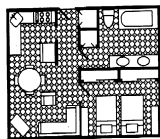


PRIME BASE

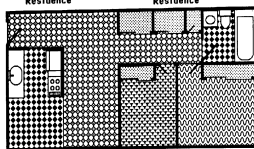
- A Cylinders
- B Annex Tunnel
- C Exposure Modules
- D Electronics
- E Weather
- F Mission Complex
- G Proposed Air Strip



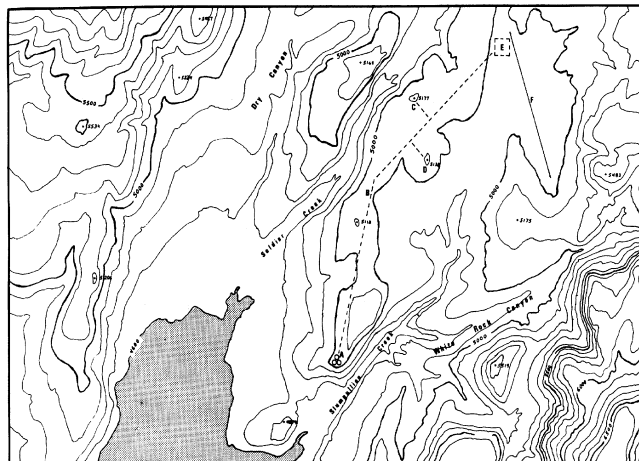
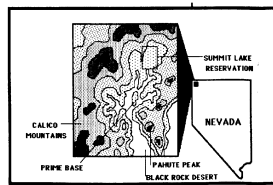
"Single"
Residence



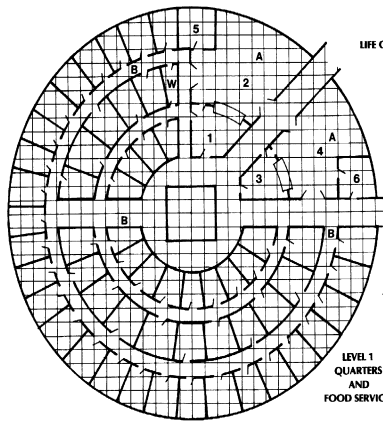
"Double"
Residence



Two Bedroom "Family" Residence

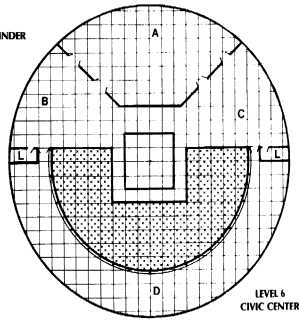


SCALE 1:24,000
CONTOUR INTERVAL: 100 FEET
NORTH ARROW

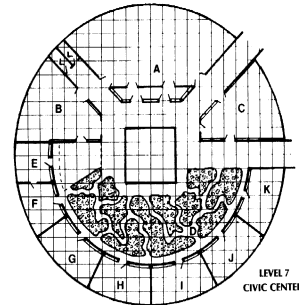


LEVEL 1
QUARTERS
AND
FOOD SERVICE

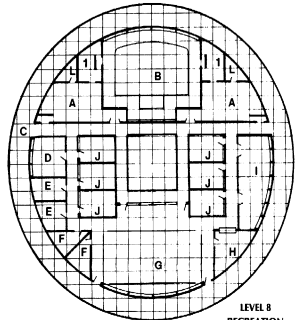
LIFE CYLINDER



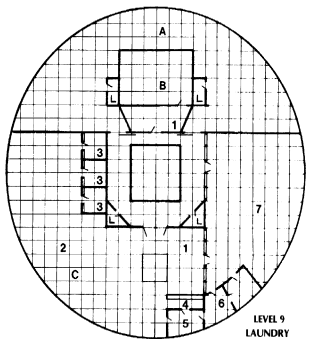
LEVEL 6
CIVIC CENTER



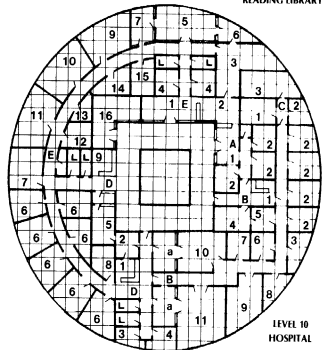
LEVEL 7
CIVIC CENTER



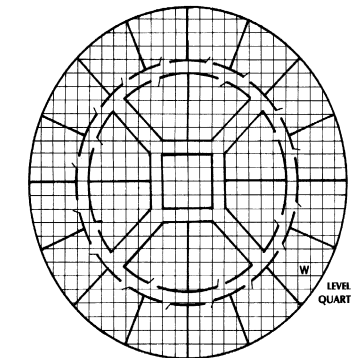
LEVEL 8
RECREATION
AND
EXERCISE



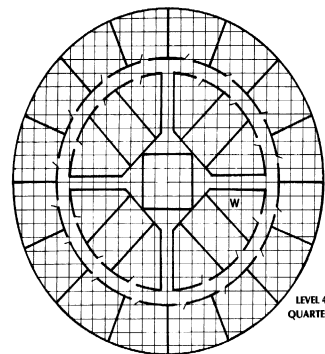
LEVEL 9
LAUNDRY
AND
READING LIBRARY



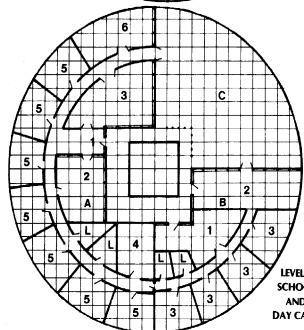
LEVEL 10
HOSPITAL



LEVEL 2
QUARTERS

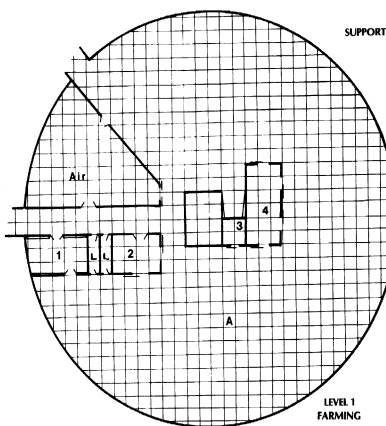


LEVEL 3
QUARTERS



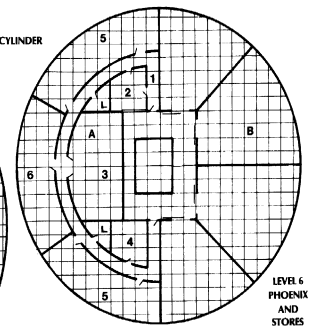
LEVEL 5
SCHOOL
AND
DAY CARE

LIFE CYLINDER

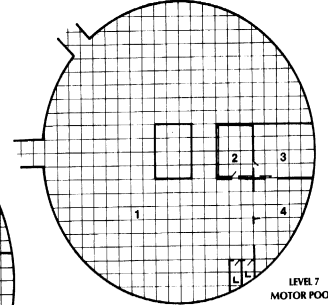


LEVEL 1
FARMING

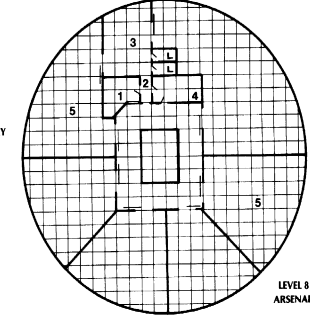
SUPPORT CYLINDER



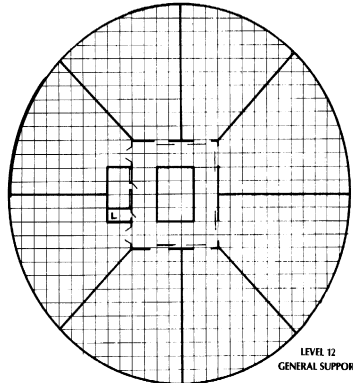
LEVEL 6
PHOENIX
AND
STORES



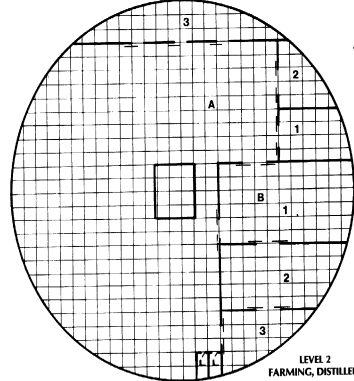
LEVEL 7
MOTOR POOL



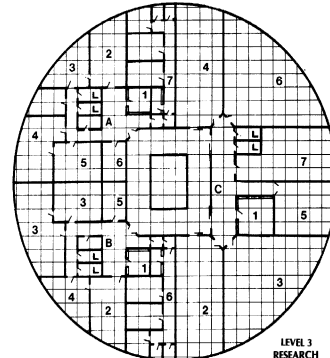
LEVEL 8
ARSENAL



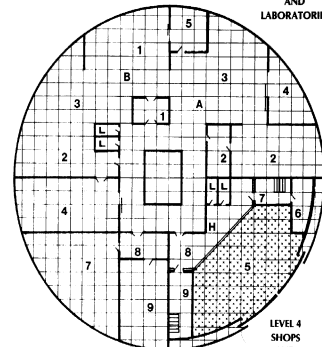
LEVEL 12
GENERAL SUPPORT



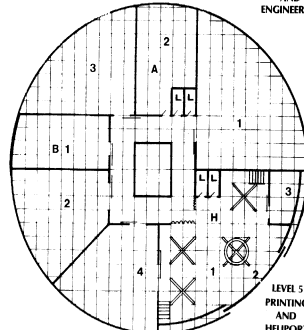
LEVEL 2
FARMING, DISTILLERY



LEVEL 3
RESEARCH
AND
LABORATORIES

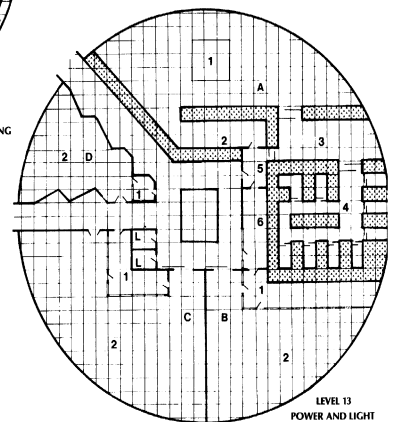


LEVEL 4
SHOPS
AND
ENGINEERING



LEVEL 5
PRINTING
AND
HELIPORT

SUPPORT CYLINDER



LEVEL 13
POWER AND LIGHT



Prime Base is TimeLine Ltd.'s module of the lost control and command center for The Morrow Project. It is designed exclusively for experienced players and Project Directors. There is no bolthole in this module, it assumes that you have an experienced team ready to take on the most important Morrow Project mission to date: Prime Base.

Prime Base is unlike any previous Morrow Project module. It is bigger, more detailed, more difficult and more deadly. It is the turning point for the Morrow Project. The point at which The Project begins rebuilding North America. The data, equipment, and plans which will awaken the sleeping potential of the Project wait at Prime Base. The Team which can survive will unlock its secrets.

This module contains a complete description of Prime Base and its environment including maps, room-by-room descriptions, new equipment, complete play of the game for the Base and more. It has a history of the Base up to and including its final days. Everything is included for the Project Director to run the biggest Morrow Project module produced to date.

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