

MORROW INDUSTRIES AUTOMATED PATROL UNIT

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The Morrow Project Automated Supply Facility (ASF) was considered a crucial asset of the project in all planning. Not only would its' supplies be desperately needed by the teams in the field, but those same supplies would tempt looters and bandits to try to break into the base. Project teams in the field would be stretched thin already and the whole purpose of the ASF was to free the Projects' limited manpower for field work. Also, it was recognized that, due to nuclear or chemical contamination, some ASF's would be in areas that human beings could not occupy for long periods of time. Accordingly, each ASF is surrounded by a minefield and automated gun turrets which activate in case of attack. To give the defenses a mobile asset, the Automated Patrol Unit was built.

The APU, frequently referred to as the Morrow Project Bolo or the Ogre, was intended to be the response to mass attacks on the supply facility, or attacks by small military units. While it has some non-lethal responses to attack, it's primary weapons are a mix of antipersonnel and antiarmor weapons. Functioning with the fire support of the automated turrets and the minefield, the APU has both a direct and indirect fire ability, as well as considerable anti-air capability. It is well armored, as heavily armored as the MARS-1 and with its' systems compartmentalized so that damage to one system will not interfere with the others. It is intended to be able to operate for several decades, if needed, with the support of the womb and the ASF defenses to assist.

The APU is kept on standby in the "Womb"- a chamber with blastproof doors both in front of and behind the APU, both sets of doors concealed by cosmetic rock walls which remain even when the doors are retracted. The APU simply drives thru them upon activation. The womb has automated functions in it to replace each of the tracks once, fully reload all the weapons systems once and remove any component which is not functioning but is interfering with the function of the vehicle. There are supplies and equipment in the womb for additional repairs and reloads, up to three times more for the belt fed weapons, but those require human beings to perform.

The APU, while a powerful weapon, is not a tank. The great weight of it's extra equipment and armor give it poor cross-country performance. While it can leave the perimeter if necessary, it will normally stay within the perimeter, not moving- it "sees" primarily via the popup turrets and ground sensors, going to it's onboard IR, visual and radar systems to augment.; There is provision for two human beings to board the APU and operate it manually.

MORROW INDUSTRIES AUTOMATED PATROL UNIT MK 1A

LENGTH: 27.15 ft (8.27 meters) HEIGHT: 10.5 feet (3.225 meters)
WEIGHT: 126,000 lbs SPEED: 26mph (42kph) ARMOR CLASS: A(Special) The APU is built on the chassis of the US Army M88 Armored Recovery Vehicle. The frame is reinforced, with israeli "Blazer" armor blocks placed on all exterior surfaces, over plates of the same boron-carbide armor used on the MARS and Science One vehicles. The Blazer armor is a low grade explosive which detonates and deflects the armor-piercing effects of shaped-charge weapons like the M72 LAW or the RPG-7. There is an 80%

chance of deflecting the penetration of charges of 80mm or less, 65% of deflecting larger charges or medium antitank missiles like the Dragon or Sagger, and a 40% chance of deflecting large shaped charge blasts caused by the TOW or Maverick. Kinetic Energy (solid or Sabot) rounds are unaffected by the Blazer armor.

TRACKS

The conventional tracks of the M88 have been replaced by 4 sets of dual tracks, two on each side. Each set of dual tracks is a pair of tracks running on the same set of roadwheels. The drive sprockets are at opposite ends of the APU, each end feeding off a different fusion reactor. There are thus 8 separate sets of tracks, of which at least 3 must be destroyed before the APU loses mobility. All tracks are protected by armored skirts which lower the chances to hit them by 50 percent and have the same odds of deflecting a shaped charge as the blazer armor on the tank.

WEAPONRY:

Primary Turret: Alfa - 105mm autoloading cannon 35 rounds available- 6 APDST (Sabot) 20 HEAT, 4 WP-T, 5 Beehive. . Secondary armament: Dual M85 .50 caliber HMG's mounted on each side of the main gun, max. elevation 45 degrees. 420 rounds per gun.
Secondary Turret: Mounted behind the primary turret, slightly lower. 81mm autoloading mortar, 30 rounds available- 15 WP, `15 HE. Capable of direct fire at targets from 2 o'clock to 10 o'clock relative to the APU.
Secondary Armament: 4 Stinger Missiles.

Chassis:

Forward: Type 3 Laser, 45 degree firing arc. 2 M10A flame guns as used on MARS-1. 4 forward firing TOW ATGM's, capable of engaging targets in a 60 degree arc- two of the TOWs are Bolt Rocket versions loaded with nerve gas.

Side Mounted: 5.56 miniguns in sponsons, 180 degree firing arc, max depression and elevation of 15 degrees. 5200 rounds per weapon. Capable of engaging incoming ATGM's with a 50% chance of destroying each missile, expending 500 rounds of 5.56 per missile. 2 gas jets as listed on Science One with full range of chemical agents.

Rear: 2 Type 1 lasers, 60 degree angle of fire. 2 gas jets as listed on Science 1. 2 grappling hooks with 25 ton capacity, 10 meter tow cables. Capacity for dropping up to 15 Antitank mines. The grappling hooks may be used for retrieving gear and materials, with the lasers to cut objects loose.

Top: Vertical-launch missile system with four tubes firing FOG (Fiber Optic Guided) Missiles. Missiles pop up and engage any target more than 200 meters from the APU, up to a maximum range of 15 kilometers. The missiles are identical in penetration to the Dragon ATGM, with the proviso that they are 85% likely to hit the thin top armor of any AFV, doubling their chances of penetration.

EACH SIDE: 4 Claymore mines for repelling close assault.

PRE-ACTIVATION: If ground sensors detect unauthorized individuals on the security perimeter or coming inside the security perimeter, a siren will sound, then the following recorded message, repeated 3 times:

"WARNING! You are in a chemically contaminated area. You have activated an automated security system. Please leave by the same route you used to

enter. Failure to leave will activate security procedures. Lethal force has been authorized to prevent individuals from spreading contamination out of this area. This is an automated system and there are no personnel on site to aide you in any way. Leave immediately."

ACTIVATION: The minefield and gun turrets are expected to be able to handle most situations of Threat Level 3 or less. The APU first activates when a threat level 4 or higher event occurs. It then returns to the womb and activates when:

- 1: Any person penetrates more than 5 meters into the perimeter without using a Morrow Project ID at the security gate.
- 2: Any individual or group fires a weapon heavier than a rifle into the perimeter, or fires a rifle-caliber weapon more than once.
3. When a vehicle of any type breaches the perimeter.

THREAT LEVEL 1: Non-lethal intrusion and/or trespassing on site by individuals and/or unarmed vehicles.

Activation of APU, maximum visibility, strobe lights and siren.

Automated message played on speakers: "WARNING! You are in a chemically contaminated area. Leave immediately. This is an automated patrol unit. There are no personnel on site. There is no one here to help you. Leave immediately or force will be used to make you leave."

If individuals do not leave, CS gas will be sprayed from the gas jets.

If the individuals have gas masks, the port and starboard Miniguns will fire 50 rounds into the ground as a warning shot and the automated message will be played again.

THREAT LEVEL 2: Trespassing on site by armed individuals, or individuals who refuse to leave even when hit with CS gas. "Warning. You are in a chemically contaminated area. The use of deadly force has been authorized to prevent trespassers from spreading the contamination. There are no personnel on this site. There is no one here to help you. All systems are automated. Leave this site immediately or deadly force will be used."

If fired on by small arms, the APU will fire one 2 second burst with the Mk3 Laser as a warning shot. If the individuals continue firing at the APU, it will engage them with the miniguns. If they are in close, the claymores and gas jets will be used. No fleeing individual will be pursued.

THREAT LEVEL 3: Trespassing by individuals with identifiable antitank weapons, more than 5 armed individuals or a vehicle with a mounted weapon heavier than a rifle-caliber machine gun. The remote turrets and minefield will activate. "Drop your weapons immediately or you will be fired on!". Any response other than dropping their weapons will trigger a lethal response- 105mm HEAT for any vehicle, laser and minigun fire for everything else to start. If the group in question drop their weapons, it will go to the threat level 2 warnings.

THREAT LEVEL 4: Entrance into the perimeter of any non-MP armored vehicles. The use of explosives by any individuals (MP or non-MP) within the perimeter. Fire from rifle caliber weapons into the perimeter. Previously identified hostile individuals or vehicles approaching the perimeter a second time. No warnings will be given. All available weapons will be used, any non-mp personnel inside the perimeter will be engaged, anyone who fires into the perimeter will be engaged. Those outside the perimeter but not using weapons will be left alone.

THREAT LEVEL 5: Fire into the perimeter from any weapons heavier than rifle-caliber- including indirect fire weapons. Entrance into the perimeter of more than 20 individuals or two vehicles. No warning given, engagement and destruction of all targets by all weapons. APU may break perimeter to engage indirect fire weapons if necessary.

REGIONAL ACTIVATION PROTOCOLS

The Automated Supply Facility is in continuous contact with the Regional Admin Base, a permanent facility manned by the Regional Admin Team (known as the Rab Rats). The RAT may be activated if a certain number of incidents take place. The formula is that a threat level score of 5 or more within a three month period is reason to activate the RAT. This would mean five Threat Level 1 incidents, two Level 1 and a single level 3, or a single Level 5.

Once activated, Regional Admin will assess the situation and respond appropriately. If contact cannot be established with Morrow Prime, the Regional Administrator can activate the regional teams- a level 2 MARS team, a Science-One team and the regional medical facility. In areas with a high population density, the RAT facility may be consolidated with the MARS or Medical facility. If it is a false alarm, or the problem is dealt with but the environment is not yet suitable for activation, the Medical Facility can be activated to put all people involved back into criosleep. All Regional teams are located within 30 miles of their Automated Supply Facility.

TERTIARY ACTIVATION: Prior to receiving a wakeup signal, the ASF will distribute limited amounts of weapons, gear, supplies and ammo to any MP team with proper ID. This is done on an emergency basis, assuming teams which have been activated accidentally or due to equipment failure and which need immediate help. Prolonged use of the facility, attempts to break in or repeated use of the facility for supplies which do not fit the mission profile (large and repeated requests for weapons and ammunition from a non-MARS team, f'rinstance) will lead to supply being cut off. Attempts to break into the facility by MP personnel will activate a security protocol in which Prime is notified of possible false MP teams in the region, lethal force will be used immediately against those breaking in, and the Regional Teams will be left in criosleep to avoid possible confusion with false MP units in the area. The APU will be activated if the break-in attempt reaches threat level 4.