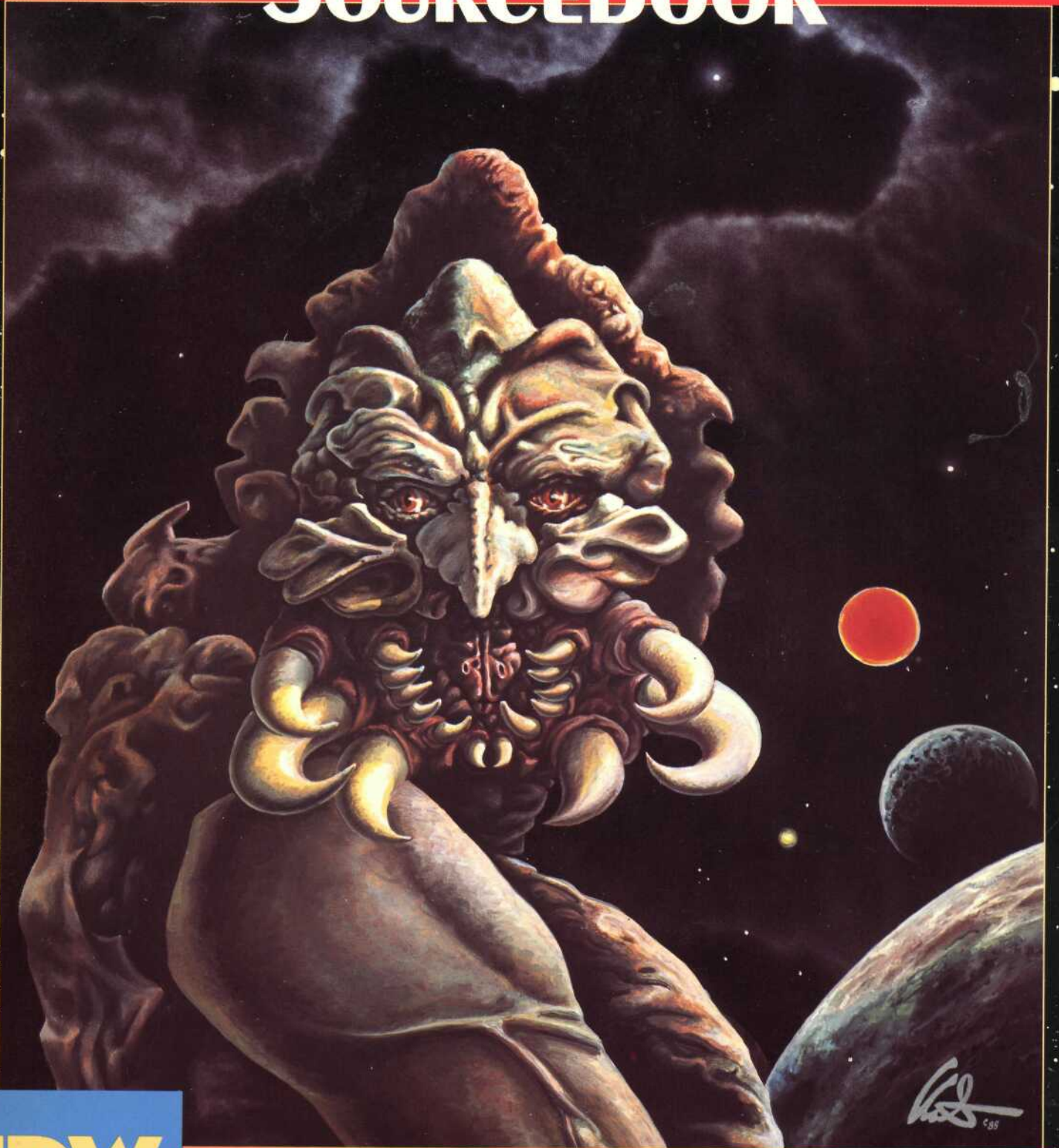


William H. Keith, Jr.

# Kafer Sourcebook



GDW

*Humanity's Implacable Foe*

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Hunger...

# **Kafer** **SOURCEbook**

*Humanity's Implacable Foe*

*William H. Keith, Jr.*



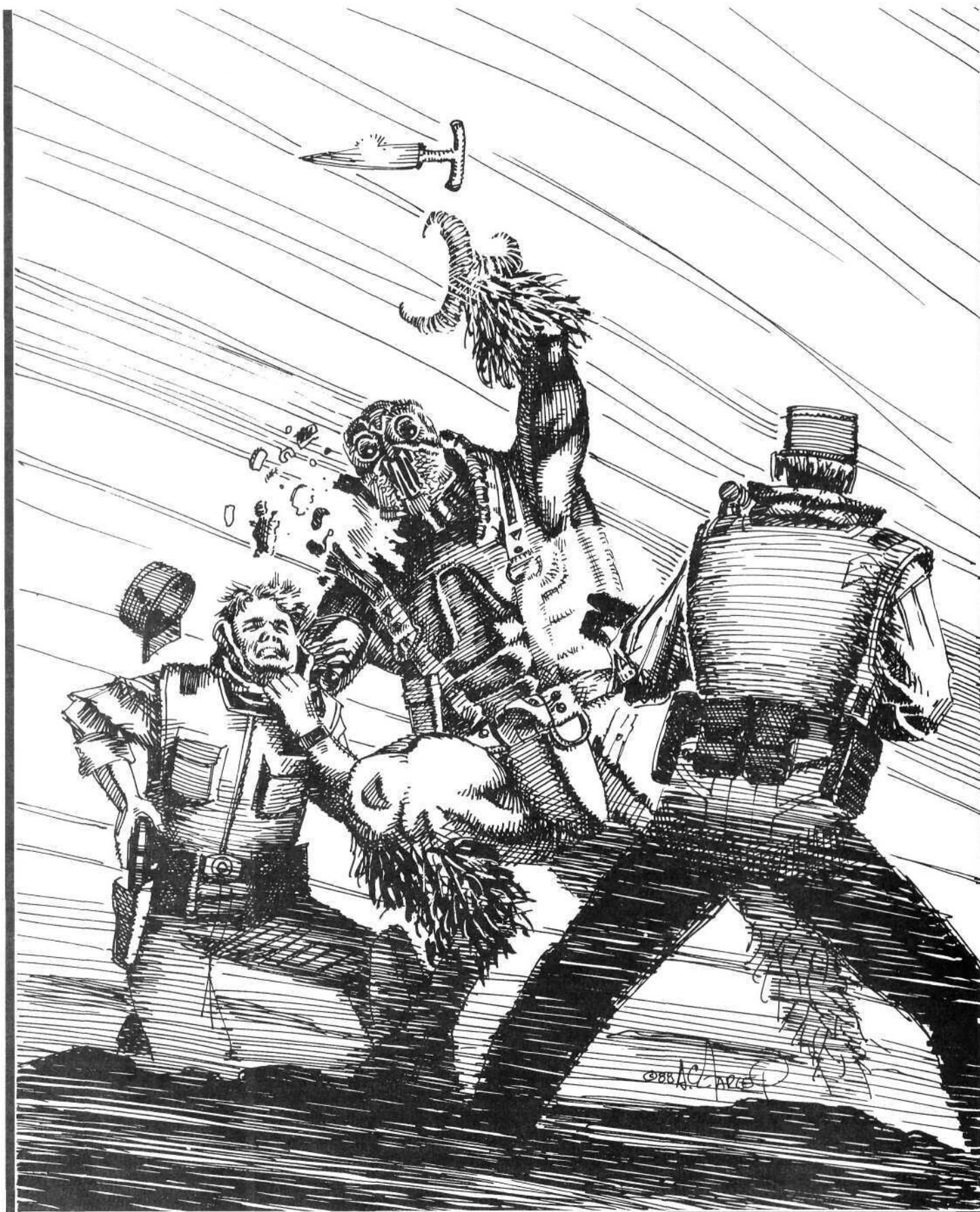






## TABLE OF CONTENTS

Introduction.....	5
Kafers: An Overview.....	6
The Kafer Homeworld.....	8
Kafer Physiology.....	12
Kafer Psychology.....	21
Kafer Sociology.....	27
Kafer Government.....	36
Kafer Language.....	40
Kafer Ideographs.....	41
Near Star Map—The Kafer Sphere.....	Color Foldout
Bugbus Illustration.....	Color Foldout
Crawler Illustration.....	Color Foldout
Star List—The Kafer Sphere.....	50
Kafer Technology.....	53
Deathsled.....	66
Beta vs. Bismarck.....	67
Kafer Ships.....	68
Kafer Space.....	74
The Politics of Power.....	96
The Ylii.....	98
Fun With Kafers...	..104



# Introduction

Humanity's explorations among the stars have brought it into contact with several alien species: the Pentapods, the Ebers, the Sung, and Xiang...

But though humanity has engaged in war with a non-human culture in the past, the so-called Slaver War against the Sung (2252-2255) for example, it had not met an alien species which presented a serious threat to its own species...until the Kafers.

*The Kafer Sourcebook* contains background information for use in **2300 AD** campaigns and adventures. It is not an adventure, but it contains all of the information necessary for the **2300 AD** referee to create campaigns and adventures of his own which involve the Kafers.

The Kafers occupy a volume of space somewhat smaller than that currently occupied by humans, located in the direction of the French Arm, beyond the star Arcturus. Kafers have already established a presence within a number of star systems—such as Eta Bootis—located on the original **2300 AD** star map. A number of other stars explored and occupied by the Kafers, however, exist beyond the boundaries of the original map. A map of this region, together with descriptions of some of the star systems located there, is included as part of this Sourcebook.

Other sections of this Sourcebook describe the physiology and psychology of the Kafers, their history, their society and social structure, and their technology. A new, non-human race, so far unknown to Humanity but in contact with the Kafers and important to the understanding of certain aspects of Kafer technology and history, is also described.

Although some of the basic information about Kafers appears in a different form in other modules, *The Kafer Sourcebook* contains more complete information on the Kafers, including a discussion of why they act the way they do.

Referees do not need to have these other modules and Sourcebook in order to use *The Kafer Sourcebook*. However, the referee will be able to use this Sourcebook to develop ongoing campaigns springing from earlier adventures.

This Sourcebook also provides background information on the escalating war between humans and Kafers after the events of 2298-2300.

*The Kafer Sourcebook* contains the following sections:

- "Kafers: An Overview" gives a brief description and a general background of the Kafers.
- "The Kafer Homeworld" describes the world and star system where the Kafers originated.
- "Kafer Physiology" describes Kafer biology.
- "Kafer Psychology" discusses the way Kafers think and act, and why.
- "Kafer Sociology" and "Kafer Government" describe Kafer social systems, history, and government.
- "Kafer Language" discusses Kafer language, and includes a pronunciation key and glossary.
- "Kafer Technology" lists Kafer ships, weapons, and implements.
- "Kafer Space" describes star systems important to the Kafers, reveals those systems which have a Kafer presence, and describes in detail several systems where encounters between Kafers and humans are not only possible, but likely.
- "The Politics of Power" lists the most important Kafer leaders and explains their interaction.
- "The Ylii" describes a non-human race in contact with the Kafers, discusses their importance in Kafer history and thinking, and suggests ways in which human adventurers might interact with them in a campaign.
- "Fun With Kafers" gives brief descriptions of several possible scenarios which the referee can develop, using the information contained in this Sourcebook.

From the beginning, Kafers have presented humans with a number of mysteries. The referee should reveal the answers to these mysteries gradually over the course of an extended campaign. Ideally, the players should recognize the various elements of the Kafer riddles, then proceed to discover the answers to them through their own actions.

**WARNING: IN ORDER TO PRESERVE SUSPENSE,  
ONLY REFEREES SHOULD READ BEYOND THIS POINT.**

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*Humanity's explorations among the stars have brought it into contact with several alien species: the Pentapods, the Ebers, the Sung, and Xiang....*

*But though humanity has engaged in war with a non-human culture in the past, the so-called Slaver War against the Sung (2252-2255) for example, it had not met an alien species which presented a serious threat to its own species...until the Kafers.*

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# Kafers: An Overview

## KAFER STATISTICS

When developing one or more Kafer NPCs for an adventure encounter, the following stats should be considered typical:

**Size:** 18

**Strength:** 12

**Dexterity:** 12

**Endurance:** 16

**Determination:** 15

**Intelligence:** 2/12

**Eloquence:** —

**Education:** —

These values will vary, of course, among individual Kafers. The referee should bear in mind that Kafers, as a sentient species, have much the same range in talents and abilities from individual to individual as is likely among individual humans. The stats listed above can be used as a basis for any number of Kafers, however.

Kafer intelligence is always low until shortly after combat begins, or some other serious danger manifests itself to the Kafer. After several minutes, Kafer intelligence jumps by as much as 10 to 12 points. The basic Kafer intelligence may be greater than 2; some individual Kafers who have survived many years of combat (the equivalents of NCO veterans) have had their intelligence permanently raised to 6 or 8. Some extremely rare individuals may have a base intelligence of 10 or 12 at all times.

Kafer intelligence is never boosted above 14, however.

This chapter presents some basic information on the Kafers, their culture, and their history.

## APPEARANCE

Kafers are two-meter tall, non-human bipeds native to the third planet of the star known (to humans) as Gamma Serpenti, and called *Ka'vak'ah* by the Kafers. Gamma Serpenti is an F6 V star, larger, brighter, and hotter than Earth's sun, and considerably richer in ultraviolet radiation. Adaptations to the harsh conditions created by such a star are evident in the Kafer's appearance and evolution.

The backs of their torsos and heads are protected by a tough, horny carapace. A pattern of dark against silver mottling across the upper portions of their skull carapace has evolved as a method of regulating body temperature. Their eyes are small, heavily pigmented, and recessed beneath massive brow ridges. Those ridges are independently muscled and capable of considerable mobility and articulation. This trait evolved to protect Kafer vision under their bright star, and serves to make the Kafer face—to other Kafers, at least—quite expressive.

Kafers evolved on their homeworld as scavengers. The relatively naked appearance of the head is the result of natural selection at work, an adaptation allowing primitive Kafers to penetrate heavily-ribbed carcasses with their heads while feeding, and to disentangle themselves rapidly if threatened. Their mouths bear an impressive array of mandibles, hooks, needles, siphons, chelae, and other tools used to impale, tear, cut, shred, chew, suck, handle, and partially digest their food. These mouthparts are normally folded up and concealed from view inside a protective integument, and are extended only when eating. Most humans feel considerable revulsion at the sight of a Kafer feeding.

Kafer hands are equipped with three mutually opposing thumbs. They lack the strength of a human's grip but are surprisingly quick and dexterous for a creature with the Kafer's reputation for brute strength and stupidity. Kafers have been known to perform fine, delicate, and intricate operations with certain of their mouth parts as well.

The articulation of their joints is roughly similar to humans, although the relative shortness of their limbs gives them a heavy-bodied and stocky appearance. Their lower legs and lower arms are covered by short, coarse bristles. Their skin, where not covered by their carapace, is thick and tough, with colors shading from black and gray through various shades of brown or green.

## INTELLIGENCE

The nature of Kafer intelligence has posed a serious problem for human xenobiologists attempting to understand their behavior. In combat, Kafers appear slow-witted, even stupid, at first. Numerous human observers have reported that, in the first moments of a fire fight, their Kafer opponents appeared to mill about in confusion as if uncertain what to do, and that their officers could be seen moving among them, beating them or using something like a cattle prod or whip as if to get them moving.

Strangely, after only a few moments of combat (typically 1 D6 combat turns), Kafers are transformed, becoming cunning, innovative, and deadly opponents.

As described elsewhere in this Sourcebook, and in *Mission Arcturus*, Kafer intelligence is dependent upon a biochemical analogue to adrenalin in humans. Introduced to the bloodstream in large amounts when danger threatens, this chemical enables Kafer brains to work at far greater efficiency than normal. The effects are maintained until the chemical breaks down, approximately 30 minutes after the stimulus ceases.

This singular fact of Kafer evolution has resulted in a new type of intelligence, known to humans as "short term intelligence," which is discussed more fully later in this Sourcebook.

Basically, Kafers show an ability to think quickly as an emergency develops, which allows them to concentrate on day-to-day survival at a lower, almost instinctual level. With the advent of technology, this aspect of Kafer evolution has hampered their development in several ways.

It makes them extremely dangerous opponents in combat, however, despite their initial apparent stupidity.

One result of their relatively low day-to-day intelligence lies in the typically high endurance of most Kafers. They are ruggedly built, tough, seemingly insensitive to pain, stoic, and able to keep going long after most humans would have collapsed.

## PSYCHOLOGY

As revealed in the game module *Mission Arcturus*, Kafer psychology has been shaped by their physiology. The fact that Kafers feel most alive and most aware when they are in danger, pain, or even at the brink of death has led them to develop a mind set which has certain points in common with at least one aspect of human existentialist philosophy. One Kafer encountered at the deep space research facility at Arcturus was found to have developed a fondness for Sartre, apparently because that existentialist writer's belief (as expressed in the book *The Wall*), revealed one point of overlap between Kafer experience and human philosophy: complete being is felt only when facing death.

This aspect of Kafer psychology explains their apparent fearlessness in combat: they are *literally* without fear! It also explains their evident confusion in attempts to understand human beings. Existentialist philosophy is common to all Kafers because they are made that way. It is possible that they are not able to conceive of any other way to be—a kind of philosophical tunnel vision brought on by the nature of the way they think. Existentialist philosophy is *not* common to all or most humans, and, in fact, the notion that someone is only able to feel completely alive at the moment he is dying is not a concept which most humans take seriously or allow to guide their lives.

## KAFER SPACE

Kafers consider "their" territory to occupy a volume of space approximately 20 to 50 light-years across, centered on the star Gamma Serpenti. This does not mean that they have extensively colonized—or even visited—all the stars within this zone. Humans have been encroaching in what the Kafers would consider to be their territory for a number of years. The colonies of Hochbaden and Eta Bootis in the French Arm both lie within this region, as well as certain worlds of the American Arm, notably New Melbourne, Botany Bay, and Zeta Herculis.

Most Kafer exploration and colonization to date has moved in the opposite direction, however, towards star systems which do not appear on the basic **2300 AD** star map. A map including these stars is presented elsewhere in this book.

The Kafers have established several major colonies on worlds which circle stars that approach their own in type and luminosity. Many smaller, dimmer stars have Kafer bases and outposts, some little more than fueling depots or listening posts. Various human intelligence services are only recently becoming aware of the problem posed by secret Kafer bases, many of which are cunningly hidden, in systems which have already been partially explored and developed by humans.

## THE KAFER WAR

The current war between humans and Kafers is largely the result of a single Kafer's attempt to unite his normally fragmented and fractious species in a bid for power and for *!'k'grik*, literally translated as "safety of the place." This and other Kafer concepts are discussed in greater detail elsewhere in this booklet.

One aspect of the Kafer War was evident from the first time humans faced Kafers on Aurore (Eta Bootis IIc). They are implacably ruthless foes, utterly without such human characteristics as mercy, empathy, or compassion. Humans are slaughtered without regard to age, sex, or condition. Prisoners are treated with a cruel savagery which defies description, and Kafers appear unconcerned with human notions of "civilized warfare." The appearance of a virus deadly to plants, animals, and humans in Kafer-infested areas of Aurore has led some humans to suspect that the Kafers are engaged in a war against the human race with the end of utter and absolute genocide.

Humans throughout the French Arm have responded in kind, trading savagery for savagery, and the war is becoming unthinkable bitter and bloody. There seems to be little possibility of solution outside of the complete extinction of one species or the other.

## REFEREE'S NOTES: KAFER NPCs

Referees of **2300 AD** should take care to stress the dual nature of Kafer intelligence during play in such a way that the players are forced to discover it for themselves. Unstimulated Kafers are treated as green NPCs. The slow, bumbling, and confused nature of Kafer actions at the beginning of a firefight can be described in some detail. Often, Kafer officers or NCOs will be seen moving among the aimlessly stumbling Kafer troops, striking them with whips, clubs, or what appear to be electric cattle prods.

After 7 D6 combat rounds, the referee should stress the profound change in Kafer behavior, but again in such a way that the players are forced to draw their own conclusions. Kafer NPCs become veterans, and their officers become elite. Some examples of Kafer cunning in combat are listed in the text. The referee can draw on these or invent his own to display Kafer cunning in battle. This cunning will most often take the form of innovative individual tactics—unusual camouflage or places to hide, breathing through a hollow reed or its extended inner mouth, and so forth. They will be adept at identifying and picking off human officers, at finding and exploiting weaknesses in a human position, and at infiltration.



# The Kafer Homeworld

## FORBIDDEN KNOWLEDGE

The Gamma Serpenti system report presented in this section follows the pattern of extracts from human stellar navigation manuals, such as the respected *Le Manuel de la Navigation des Etoiles de Blancharde*. However, though humans know of the existence of Gamma Serpenti (it is visible from Earth as the third brightest star in the constellation *Serpens Caput*, with an apparent magnitude of 3.9), they have never been there, and do not suspect that it gave rise to Earth's bitterest enemy.

This section of the sourcebook lists all applicable data for the Gamma Serpenti star system as though it were listed in a human navigation manual. The players should not be allowed access to this information through a ship or station computer because the planetary data which appears here has not been gathered by human explorers!

It is possible, of course, that in the course of an ongoing **2300 AD** campaign, the player characters will have the opportunity of exploring Gamma Serpenti's environs...at the very least in the capacity of Kafer prisoners! Should they have this golden opportunity to add to human knowledge, they may have access to this information either through the offices of a Kafer "guide," or as a result of their own observations.

This chapter presents planetological, sociological, and other background data on the Kafer homeworld.

## SYSTEM REPORT: GAMMA SERPENTI

The Gamma Serpenti star system consists of seven planets. The inner two are bare, radiation-baked rocks, airless and lifeless. Three lie beyond the outer limits of the star's habitable zone. Of these, two are gas giants, while planet V is a massive, cold, rocky planet with a thin reducing atmosphere.

Stars of high luminosity have deeper habitable zones than cooler, dimmer stars, a fact which increases an F-class star's chances of having worlds with orbits permitting liquid water and life. Gamma Serpenti's habitable zone contains two worlds. Gamma Serpenti-III (Kafer: *Ka'vak'ah*), lying close to the inner boundary of the life zone, is the original homeworld of the Kafers. Gamma Serpenti-IV lies close to what is considered (by humans, at any rate) as the optimum distance for an Earthlike planet in an F6 V star system. Gamma Serpenti-IV was heavily colonized early in the history of Kafer spaceflight. Today it is as massively industrialized as the Kafer's own homeworld.

**Kafer Name:** *Ka'vak'ah* **Coordinates:** X: -20.3 Y: -33.1 Z: 10.9 **Type:** F6 V **Mass:** 1.25 Sol **Luminosity:** 3.1 **Sol Radius:** 1.33 Sol

**Gamma Serpenti-I:** **Orbital Radius:** .5 au **Orbital Period:** 1 1 3.2 days (.31 year) **Mass:** .23 Earth

**Gamma Serpenti-II:** **Orbital Radius:** .75 au **Orbital Period:** 221.8 days (.58 year) **Mass:** .78 Earth

**Gamma Serpenti-III:** **Mean Orbital Radius:** 1.275 au **Orbital Period:** 470.3 days (1.28 year) **Mass:**  $6.02 \times 10^{27}$  gm (1.007 Earth) (Further information below.)

**Gamma Serpenti-IV:** **Mean Orbital Radius:** 1.785 au **Orbital Period:** 2.13 years **Mass:**  $2.3 \times 10^{28}$  gm (3.786 Earth) (Further information below.)

**Gamma Serpenti-V:** **Orbital Radius:** 3.39 au **Orbital Period:** 5.58 years **Mass:** 4.3 Earth

**Gamma Serpenti-VI:** **Orbital Radius:** 6.78 au **Orbital Period:** 15.8 years **Mass:** .066 Jupiter

**Gamma Serpenti-VII:** **Orbital Radius:** 10.17 au **Orbital Period:** 29 years **Mass:** .045 Jupiter (Sol V)

### Gamma Serpenti-III

**Name:** *Ka'ra! 'ah* (Cruel Mother) **Mean Orbital Radius:** 1.275 au **Orbital Period:** 470.3 days (1.28 year) **Rotational Period:** 22h 13m 23.4s **Equatorial Diameter:** 16,589 km (1.3 Earth), **Circumference:** 52,116 km **Mass:**  $6.02 \times 10^{27}$  gm (1.007 Earth) **Density:** 5.093 gm/cm<sup>3</sup> (.923 Earth) **Surface Gravity:** 1176.8 cm/sec<sup>2</sup> (1.2 Gs) **Escape Velocity:** 1 3.4 kps **Axial Inclination to Orbital Plane:** 37° 20' 1 5" **Hydrosphere:** 32% **Mean Temperature (Equator):** 53°C **Mean Temperature (Pole, Winter):** 1 5°C **Magnetic Field:**  $1.02 \times 10^2$  gauss, inclined 1 7° to the pole **Satellites:** 1

**Atmosphere:** **Pressure at Sea Level:** 926mm Hg= 1.235 bar **Partial Pressure O<sub>3</sub>:** .17 atm **Atmospheric Composition:** N<sub>2</sub>: 83.25% O<sub>2</sub>: 13.92% Ar: 2.5% Or. 763 ppm, CO<sub>2</sub>: 295 ppm Ne: 27.3 ppm **Other Constituents, including Kr, NO<sub>2</sub>, He, and SO<sub>2</sub>:** Less than 2 ppm

**Note:** Much of Gamma Serpenti-III's surface is heavily industrialized. Areas of concentrated heavy industry are frequently subject to substantial atmospheric concentrations of various pollutants, notably SO<sub>2</sub>, CO, H<sub>2</sub>SO<sub>4</sub>, NO<sub>2</sub>, and HNO<sub>3</sub>; these areas have atmospheric levels of these pollutants considerably in excess of the values listed above.

**Surface Features:** **Hydrosphere:** 32.1% **Desert (Various Terrain Types):** 54.5% **Mountains and Mountain Plateau:** 9.5% **Temperate Plains and Grasslands. Steppes, Savannas, and Uplands:** 3.6% **Forest and Woodland:** 2.2% **Jungle or Swamp:** 2.1% **Polar Ice Caps and Glaciers:** None

**Note:** Large areas of Gamma Serpenti-III's surface are now urban or devoted to heavy industry.



**Gamma Serpenti-IIIa:** Gamma Serpenti-III's one moon served as the first stepping stone of the Kafer's movement into space. The satellite now serves as a naval base.

*Orbital Radius:* 33,756 km *Period:* 17h 4m 52s *Diameter:* 860 km *Composition:* Rocky  
*Density:* 3.31 gm/cm<sup>3</sup> (.6 Earth)

## ON THE KAFER HOMEWORLD

Gamma Serpenti-III can be characterized as large, hot, and dry. A single, landlocked sea occupies less than a third of the total surface area near the planet's south pole. Over half the surface area is desert, uninhabitable by human standards. The major desert area girdles the planet between approximately 40°N and 30°S. This desert terrain is widely varied, but biologically active, regions supporting an astonishing variety of native life.

The desert regions of Gamma Serpenti-III have been the focus of Kafer industrial exploitation for centuries. Vast areas have been mined with the characteristic single-mindedness of Kafer enterprise, leaving raw strip mining scars, slag heaps, and open pit mines 20 kilometers across. Kafer cities are located across the surface, seemingly at random, most on sites long established as "safe-places" by Kafer trade and custom.

Grassland and mountain areas on the Kafer homeworld are scarcely less arid than the deserts, though rainfall occurs, and the grasslands are the principal agricultural regions of the planet. These areas too, however, show evidence of extensive mining operations.

Gamma Serpenti-III's only heavily forested regions are found along the shores of the landlocked sea in the southern hemisphere. In places these approach terrestrial jungles in thickness and in the diversity of their ecologies. It is likely that they occupied a much larger area until relatively recently, when the Kafers began to deforest large regions in the continuing search for resources.

The planet possesses a magnetic field much stronger than Earth's. It is likely that this has helped shield the surface somewhat from the effects of ionizing radiation from the system's sun. One direct effect of the magnetic fields is the continual, brilliant auroral displays around the planet, which are brightest near the poles, but frequently extending from pole to pole, especially when the sun is active. Charged particles from the sun are trapped within the magnetic field and channeled towards the poles, creating dazzling, shifting displays of radiance. Truly dark nights are rare.

Gravity is 20 percent higher on Gamma Serpenti-III than on Earth. A man weighing 85 kilos will weigh 102 kilos there. Unless he was born and raised on a colony world with a surface gravity of more than 1 G, he will feel heavier, move more slowly, and tire more easily than normal. Kafers, of course, are completely unaffected by it.

The total population on the Kafer homeworld numbers approximately 2.5 billion.

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## KAFER PLANET NAMES

For convenience, proper names in this report are given human equivalents.

The star, Gamma Serpenti, is known as Ka'vak'ah in the principal Kafer tongue, translating roughly as "Stimulator of Wisdom," or Teacher. The Kafer homeworld, Gamma Serpenti-III, is known as Ka'va'ah, meaning "Cruel Parent of Nurture," or (very approximately, since Kafers are hermaphroditic), "Cruel Mother."

Gamma Serpenti-IV, heavily colonized by the Kafers, is !shk'k'gah, which includes glyphs which may mean "dreams," "eating," and "cold" (precise definitions are still debated among linguists studying the Kafer language). The word may possibly mean "the cold place we dreamed of which provides food," or alternatively, "the cold place we thought would provide food." Idiomatically, this can be translated as "refrigerator." Other stranger suggestions for translations have been made.

The Kafer language, which offers insights into the way they think, as well as revelations about their nature and their society, is discussed in greater detail in the section entitled "Kafer Language."



### Gamma Serpenti-IV

Name: !shk'k'gah Mean Orbital Radius: 1.785 AU Orbital Period: 2.13 years Rotational Period: 34h 48m 3.1s Equatorial Diameter: 18,563 km (1.45 Earth) Circumference: 58,317.4 km Mass:  $2.3 \times 10^{28}$  gm (3.786 Earth) Density: 6.78 gm/cm<sup>3</sup> (1.23 Earth) Surface Gravity: 1 753.4 cm/sec<sup>2</sup> (1.788 G) Escape Velocity: 20.02 kps Axial Inclination to Orbital Plane: 15° 19' 1" Mean Temperature (Equator): 28 °C Mean Temperature (Pole, Winter): -50 °C Hydrosphere: 64% Magnetic Field: .35 gauss, inclined 12° to the pole Satellites: 3

Atmosphere: Pressure at Sea Level: 1 1 25mm HG = 1.5 bar Partial Pressure O<sub>2</sub>: .288 atm Atmospheric Composition: N<sub>2</sub>: 79.56% O<sub>2</sub>: 1 9.21 % Ar: 1.12% Or 212 ppm CO<sub>2</sub>: 367 ppm Ne: 15 ppm Other Constituents: less than 1.5 ppm

Note: Much of Gamma Serpenti-IV's surface is heavily industrialized. Areas of heavy industry are frequently subject to atmospheric concentrations of various pollutants, including SO<sub>2</sub>, CO, and H<sub>2</sub>SO<sub>4</sub>, among others.

Surface Features: Hydrosphere: 64%, Temperate Plains and Grasslands, Steppes,

*Savannahs, and Uplands: 5% Mountains and Mountain Plateaus: 4% Jungle or Swamp: 1 % Tundra: 2% Polar Ice Caps and Glaciers: 24%*

*Note: Large areas of Gamma Serpenti-IV's surface are now urban or devoted to heavy industry and mining.*

**Gamma Serpenti-IVa:** *Orbital Radius: 55,456 km Period: 1 8h 32m 59s Diameter: 998 km Composition: Rocky Density: 3.34 gm/cm<sup>3</sup> (.6 Earth)*

**Gamma Serpenti-IVb:** *Orbital radius: 92,901 km Period: 1d 16h 13m 15s Diameter: 1 260 km Composition: Rocky Density: 4.41 4 gm/cm<sup>3</sup> (.8 Earth)*

**Gamma Serpenti-IVc:** *Orbital Radius: 2,220,045 km Period: 195d 18h 32m 38s Diameter: 3768 km Composition: Rocky Density: 4.96 gm/cm<sup>3</sup> (.9 Earth)*

**Note:** All three satellites of Gamma Serpenti-IV are occupied by Kafer naval and industrial facilities. A major Kafer fleet base and dry dock facility has been constructed on Gamma Serpenti-IVb.

## **GAMMA SERPENTI-IV**

Gamma Serpenti-IV is a larger world than the Kafer homeworld, with an even higher surface gravity. Located at a distance from Gamma Serpenti where the star's luminosity is similar to that of Sol from Earth, with an axial tilt less than that of Earth, and with terrestrial-type oceans to modify and ameliorate planetary surface conditions, the climate on this world is quite mild and temperate across most of its surface. Except for its high surface gravity (1.78 G), it would be a quite pleasant place to live by human standards.

Kafers find Gamma Serpenti-IV uncomfortably cold, though there is evidence which suggests that Kafers are less sensitive to extremes of either temperature or discomfort than are humans. Discomfort or not, they have colonized and developed Gamma Serpenti-IV to the point where the population numbers over 500 million. Kafer mining operations have ravaged vast areas of this world's surface, too, as on Gamma Serpenti-III.

Much of the Kafer home system's food is raised on Gamma Serpenti-IV, including several types of grain similar to Terran cereals, and several species of large, hooved animals raised for their meat. Surface spaceports and orbital stations serve as the termini of an extensive network of interplanetary commerce.

With a magnetic field similar to Earth's in strength, and a greater distance from its sun, Gamma Serpenti-IV does not experience the spectacular auroral displays of the Kafer homeworld. Such displays are still more frequent and brighter than on Earth, however, for the F6 star is considerably more active than Sol.

## **AURORAL ACTIVITY**

Auroras are caused by charged particles from a planet's sun becoming trapped in the planet's magnetic field. Drawn towards the planet's magnetic poles, they interact with the atmosphere at high altitudes, creating a radiant glow. Auroras may appear as shafts or pillars of light, as a hazy glow, or as shifting curtains in the sky. Colors are commonly yellow and white, less frequently red or green. The shifting, shimmering displays are breathtaking and quite beautiful to human eyes.

**2300 AD** characters who have spent time on Aurore (Eta Bootis IIc) will be familiar with the phenomena, for the perpetually twilight skies of that world are frequently illuminated by auroras triggered by the proximity of its brown dwarf primary, Tithonus. Characters who have lived in the polar regions of Earth will also be familiar with auroral displays, although the displays of Earth are not as spectacular as auroral displays on Aurore or the worlds of the Gamma Serpenti system.

The auroras of Gamma Serpenti-III might have a practical application to characters who find themselves loose on that planet's surface (perhaps as escaped prisoners seeking to avoid Kafer patrols or search parties). Kafer eyes are not well adapted to dim light, and Serpentean nights *appear* as relatively dark to them as nights on Earth do to humans. The auroras provide enough light for humans to navigate by, however, giving them a decided visual advantage in night encounters.

Some consider it ironic that Kafers are almost totally blind to one of the most splendid beauties of their world. Others say that Kafers could not appreciate the auroral displays even if they could see them.

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# Kafer Physiology

## WHAT DO YOU CALL IT?

Needless to say, "Kafers" is not what the Kafers call themselves. The name was derived from one of the nicknames applied to them by human soldiers fighting them on *Aurore*, and is based on their (to human eyes) disturbing appearance.

Early Terran nicknames for the Kafers included "Bugs" (English), *Bunyips* (Australian slang for a mythical inhabitant of that continent, similar to the North American Bigfoot), "*la Blatte*" (French for "cockroach" or "black beetle"), "*la Cucaracha*" (Spanish and Texicano for "cockroach"), and "*der Kafer*" (German for "bug"). Of these, the latter stuck and became widespread throughout the human community. First applied to the invaders by German mercenaries serving on *Aurore*, "Kafer" is also a German slang term for a pretty girl.

It is believed that the Kafers refer to themselves as *Vah*, a word-glyph which seems to mean, approximately, "the race."

This chapter describes Kafer physiology and biology. An understanding of the biological basis for Kafer behavior is necessary for understanding their social structure, their culture, and the alien (from the human point of view) way they think.

## PHYSICAL DESCRIPTION

Kafers have most frequently been described as looking like giant, upright insects, an image fostered by the horny, spine-bearing carapace covering their backs and upper heads, by the bristles on their lower arms and legs, and most especially by the entymoid appearance of their lower faces. Kafer mouthparts superficially resemble those of Terran crayfish or similar arthropods, while the internal structure is as complex as the tangle of multiple tools and manipulators in an Earthly mosquito. Since these mouthparts are usually folded up inside the protective outer integument, however, they are seldom displayed except during feeding.

Their hard carapace, which extends up along their spine to provide partial protection for the head, makes them less flexible than humans, and their movement often appears stiff and clumsy to human eyes. This disadvantage is more than balanced by their speed and dexterity, a legacy of their evolution on a world where objects fall 20 percent faster than on Earth.

The arrangement of their carapace gives them a stooped appearance. An indication of their size can be gained from the realization that the average Kafer *still* stands two meters tall, even though it appears to be hunched over.

Kafer skin, where not covered by the horny carapace, is tough and pliable. It does not have pores and has the appearance of being slick and shiny, almost like plastic. Kafer skin has been compared to soft leather in toughness, while their carapaces have been compared to human fingernails. The color ranges from charcoal gray to red brown, though greenish-gray and ebony black individuals have been observed. All bear irregularly spaced, silvery patches on their skin which are especially prominent on the the upper surfaces of their heads. These patches vary not in color, but in reflectiveness. In dim light they are very nearly invisible. In bright light they grow larger, more reflective, and more noticeable. It is believed that these patches serve as a kind of temperature control mechanism in Kafers, helping to reflect sunlight and reduce excess heat, especially in the area of the brain.

Skin color among Kafers does not seem to bear any relationship to their observed duties or social status.

An early misconception about Kafer anatomy suggested that Kafers have exoskeletons in the same way as do Terran insects, possibly because of the hard, slick appearance of their skin. This is most certainly not the case. Kafers are vertebrates and possess full internal skeletons, as do humans. Their dorsal carapace is firmly anchored to their spines, but is not an outgrowth of the Kafer skeleton. The Kafer carapace appears, on close examination, to be more closely analogous to the horns of the Terran rhinoceros. The distinctive horn of the rhino was actually derived from fibrous bundles of hair, rather than from something like human fingernails, which are derived from skin tissue. The bristles which adorn Kafer forearms and lower legs do not seem to be functionally related to the hair found on Terran mammals, but the material is definitely related to the material which makes up the Kafers' carapace.

An important note about Kafer skin and carapaces: Kafer carapaces are definitely insensate, lacking nerves. While Kafer skin possesses nerves, it does not appear to be as sensitive as human skin, and it is possible that Kafers do not feel pain at all, at least from superficial injuries restricted to their skin. Deep, penetrating wounds, blows, and electric shock all appear to cause a response analogous to pain in humans, though it is unlikely that they feel pain in the same way that humans do. Lacking a common frame of reference, it is unlikely that either humans or Kafers will ever understand what the concept of "pain" means to the other.

A Kafer's legs and arms are similar in function and articulation to a human's limbs. The muscular arrangement is somewhat different than a human's, and a Kafer's upper arms and upper legs are longer, and their lower legs and forearms shorter than their human counterparts. Their lower



legs and forearms are covered by short, stiff bristles which grow in uneven clumps. The purpose of these bristles is unclear, but Kafers have been photographed through long-range telescopic cameras engaged in what appears to be self-grooming, running certain of the more obscure tools in their complex mouths over and through their forearm bristles, and occasionally applying these bristles to their heads and carapaces. This activity has been likened by some authorities to the "face washing" of flies and other Terran insects. As is noted elsewhere in this Sourcebook, Kafer eating practices are messy, and these self-grooming behaviors may be necessary to prevent disease.

Kafer hands and feet consist of three digits. Their hands have been described as three mutually opposable thumbs, a statement which has resulted in numerous humorous references to Kafers being "all thumbs." Such jokes notwithstanding, Kafer dexterity is at least equal to, and possibly superior to, human dexterity, though Kafers lack a typical human's strength of grip. Kafers have been observed to use the chelae of their mouths as a second set of hands when performing particularly delicate tasks requiring great precision. This particular habit is undoubtedly the origin of the various "Kafer tasting the calculator" jokes.

Kafer toes are broad, splayed, and protected on top by horny growths similar to the material of their carapaces, and on the bottom by thick, insensate, heavily ridged pads which provide as much protection and traction as military boots do for a human. Depictions of Kafers generally show them as digitigrade, which is walking on their toes as do terrestrial dogs, rather than plantigrade, as humans. The articulation of Kafer feet is actually more complex than this, and they seem capable of assuming either a digitigrade or a plantigrade stance, depending on the needs of the moment. A plantigrade posture seems to give them greater stability while resting, moving cautiously, or feeding, while a digitigrade posture seems to be favored during rapid movement.

In cool, moist conditions, or conditions of extreme cold temperatures, Kafers are subject to a number of foot problems which are little understood. There seems to be a sort of ointment which Kafers must use to avoid this condition which recon drones have observed Kafers rubbing into their feet. Traces of this compound found in Kafer tracks have so far defied complete analysis, but consist of a number of waxes and oils in a petrolatum base.

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*As a result, Kafer faces look "wrong" to human beings in ways quite apart from such obvious anatomical differences as the mouth and eyes. The Kafer face appears blocky, angular, strangely shaped, stiff, expressionless, and with the angles and planes differing from their human counterparts.*

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For humans, the most immediately noticeable aspect of a Kafer, aside from its overall alienness, is its face. The eyes are black, shiny, and almost obscured under the heavy, mobile brows. Humans possess an unconscious tendency to try to see patterns in terms they can comprehend; it is only natural that they try to relate the shape and form of the Kafer face to those of human faces.

As a result, Kafer faces look "wrong" to human beings in ways quite apart from such obvious anatomical differences as the mouth and eyes. The Kafer face appears blocky, angular, strangely shaped, stiff, expressionless, and with the angles and planes differing from their human counterparts. Because of the angles of the Kafer face, many humans find it perpetually scowling and sinister. The combination of the semi-familiar "human" aspects with the alien "insect" mouthparts make Kafers particularly repulsive to humans. What Kafers think of humans is not known.

Kafer ears, evolved on a world with a denser atmosphere than Earth, are small and almost unnoticeable, and located under what would be the angle of the jaw on a human. Movable flaps of skin can seal them off completely. This may be an evolutionary mechanism to protect the individual's hearing on a world where natural sounds (such as thunder) are much louder than on Earth. Kafer hearing in general is not as keen as human hearing, and is tuned to somewhat lower frequencies. Humans can hear higher pitched tones than can Kafers, but Kafers can hear slightly lower tones than humans.

## **INTELLIGENCE IN THE UNIVERSE: A SCIENTIFIC VIEW**

Kafers presented something of a surprise to Terran researchers who, on the basis of contacts with the Sung, the Pentapods, and other non-human species, had concluded that the evolution of intelligence throughout the universe is probably both common and of a more-or-less predictable nature. Though the various non-human sentient species showed marked differences from humanity in their psychologies and in their outlook on the universe, it could be claimed with some confidence that they possessed the same general type of intelligence as humans.

One of the immediate products of this new understanding of xenopsychological processes is the realization that the universe neither favors intelligence over non-intelligence, nor is it likely to favor any particular type of intelligence over any other. Dr. Coretta Malcom of MIT pointed out in a paper (Scientific World, March, 2300) that the most successful form of life yet known in the universe was the various mesozoic life forms (dinosaurs), masters of non-intelligent adaptation which dominated Earth for nearly 200 million years.

Dr. Malcom asserts that the true masters of this galaxy are, by our definitions, non-intelligent, or they possess an intelligence so different from ours that we may never be able to understand them. This paper was widely paraphrased (and widely misunderstood) in the popular press and caused a tremendous sensation.

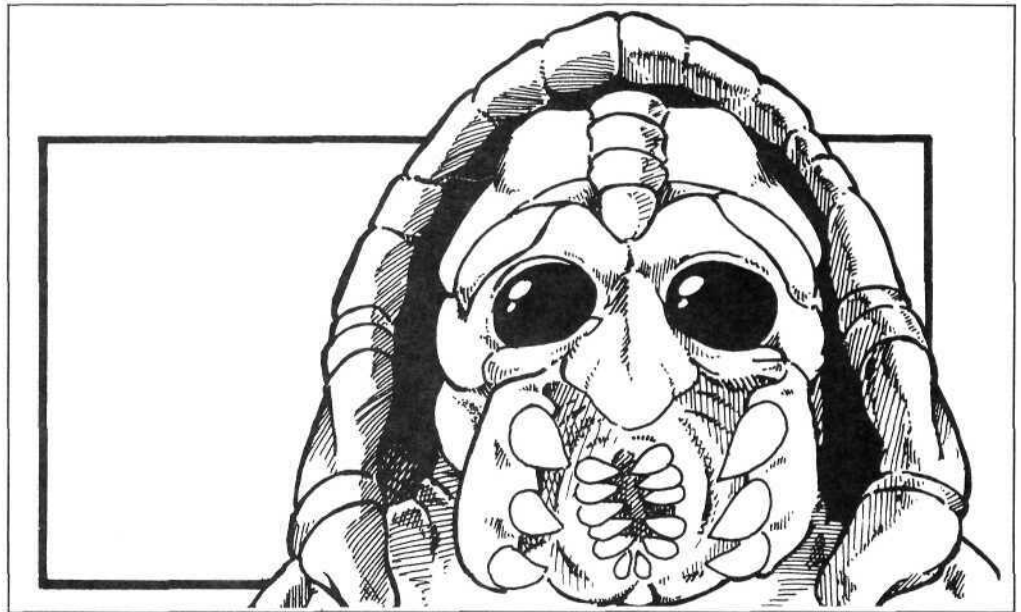
## KAFER ADAPTATIONS

*Life throughout the universe, whatever its form, is the product of its environment, and Kafers are no exception. Their stats, as presented in this book, reflect their evolutionary background.*

*Both their strength and their dexterity, higher than in typical humans, are the adaptational results of evolution on a world with a higher surface gravity than Earth. Kafers, despite their apparent clumsiness, are faster and more agile than humans because they evolved on a world where objects (whether food, tools, or Kafers) fall some 20 percent faster than on Earth.*

*The strange (to humans) nature of Kafer intelligence also reflects their evolutionary past. Kafers did not need high intelligence on a day-to-day basis, since food (the carcasses of large animals common to their world) was always available, and shelter was typically provided by digging a hole in a soft earth bank. Intelligence, when it was needed, was needed suddenly, in response to unexpected danger, and did not lend itself to abstract contemplation of a remote future.*

*As they explore the universe, humans should bear in mind that there is no reason to suppose that a truly alien intelligence will be anything at all like ours. The Kafers reflect this fact.*



## THE MOUTH

The Kafer mouth opening is a vertical slit running from what in humans would be the nasal septum down to the chin. The Kafer's feeding organs are arrayed in several distinct layers.

The outermost layer is protective, and consists of flaps of tough, almost inflexible skin called labia which can close across the mouth from each side covering it completely. Several pairs of short, sharp claw-like protrusions, popularly called "pinchers," extend across the mouth opening. The top pair are especially prominent and anchored by powerful muscles.

Inside the outer protective layer are four pairs of pedipalps, segmented organs which are kept folded inside the outer covering when not in use, but which can extend out of the mouth when the outer layer is opened. These pedipalps range from approximately five to eight centimeters in length for the lower pair, to 15 to 20 centimeters in length for the upper pair, and are never more than one centimeter thick.

Kafers appear to be capable of fine coordination and control with their pedipalps, to the point that they have been observed using them for delicate adjustments to machinery, for examining captured human tools and weapons, and for manipulating and examining the limbs and faces of human prisoners. Pedipalps appear to have evolved as a means of manipulating food. Autopsies have shown that the pedipalps have the greatest concentration of sensory nerves.

When a Kafer uses its pedipalps, the labia and outer mouthparts generally fold back out of the way to such an extent that the Kafer's entire face appears to be splitting open.

Behind the pedipalps are the Kafer's mandibles: paired, bony plates anchored at their top, bottom, and outer edges in muscle, black in color, with razor-keen inner cutting edges which move back and forth across the mouth opening, and are capable of limited up-and-down and circular motion as well. The mandibles serve as a human's incisors, for tearing and cutting.

Behind the mandibles lies the Kafer's inner mouth, a peculiar organ cluster which normally folds in upon itself, but which can be everted past the mandibles when they are opened to their maximum extent. The inner mouth has no jaws, but is built around a soft, pitcher-shaped orifice lined with stiff, inward-pointing bristles which may serve as teeth. Paired tubules arise from either side of the orifice and appear to be designed to deliver digestive juices to the Kafer's food. An organ designated as the "tongue," but serving a far more complex purpose, resides in a sheath just beneath the orifice. It is saw-toothed and sharp, and is also hollow, apparently for the purpose of sucking liquid like a long, built-in drinking straw. The inner mouth is the attachment point for three more pairs of palps, called endopalps. There is also an inner ring of short, hooked claws similar to the outer mouth's pinchers, but without the powerful muscles. All of the Kafer mouth parts work together in a complex and coordinated fashion. Pinchers and

labia hold large pieces of food in place, where mandibles and pedipalps can slice or tear it into manageable chunks. The "tongue" is used for such varied purposes as spearing and holding meat, sawing or rasping through bone, and drinking both water and the body juices of dead animals. Powerful digestive juices from the tubules soften tough or gristly food and make it easier to swallow. The pedipalps are used to convey small shreds of food into the inner mouth orifice, and the orifice itself masticates food through a rhythmic peristaltic motion as the Kafer swallows.

## EVOLUTIONARY BACKGROUND

The complexity of the Kafer's eating organs led early observers to jump to the conclusion that Kafers must be carnivores. "After all," one lay observer noted, "it's obvious the critters go to a lot of trouble to hold their food still while they eat it. That can only be because they eat their prey while it's still alive and moving!"

In fact, this proved to be too simplistic an explanation, another point where the revulsion with which humans regarded Kafers caused them to jump to erroneous conclusions. Kafers are descended from scavengers, and certain aspects of their modern appearance are the result of natural selection tailoring them for survival within this rather specialized ecological niche.

Kafers evolved from scavenger pack animals which occupied the ecological niche of terrestrial jackals and hyenas. The vast, Serpentine grasslands gave rise to a number of very large species of grazing herbivores and omnivores similar to several Terran species, including the brachiosaurus, the titanotheres, and the elephant. These creatures ranged from three to seven meters tall at the shoulder, were massively armored under dorsal carapaces, and weighed in excess of eight tons.

Ancestral Kafers evolved as pack animals adapted for foraging across wide regions of savannah, seeking out dead and dying grazers by smell, sound, and by the behavior of other animals within the ecosystem. Their complex mouthparts are entirely the product of their superb adaptation as scavengers, tailored by natural selection to open, dismember, and eat a heavily-armored carcass many times larger than an individual Kafer. With a wide variety of natural enemies, including both predators and other larger, meaner scavengers, proto-Kafers had to be able to eat quickly, and a small unit (called a *troop*) of them may have been able to strip an eight-ton carcass in less than an hour.

Proto-Kafers evolved into modern Kafers through a combination of circumstances. The gradual drying of their world and the recession of its single, small sea resulted in the extinction of many of the giant herbivores on which they depended for food. A low level of intelligence may have evolved as brighter proto-Kafers learned to strip a carcass and preserve the meat in salt for later use. In this scenario, the brighter Kafers survived lean times when no carcasses were to be found, while the rest starved and died. Too, some Kafer troops may have learned to hurry the death of injured or dying animals by attacking them with pinchers, "tongue," and, eventually, crude weapons. This behavior led eventually to Kafers learning how to hunt. By this time, Kafers were among the most numerous of Serpentine grasslands life, far too numerous to inhabit only the scavenger ecological niche. By warring upon—and eating—each other, they kept their numbers down, insured that only the brightest and toughest would survive, and extended the niche which they occupied from that of scavengers to scavengers and hunters as well, more than doubling the species' chances for survival.

It should be noted that the term "bright" Kafer in this context is relative. The basic intelligence of proto-Kafers was probably less than that of terrestrial baboons.

But the biochemical response which revealed itself as a short-term increase in basic intelligence had begun manifesting itself in early proto-Kafers as a survival mechanism. Kafers were dangerously vulnerable to enemies during feeding. While they were entangled within the skeleton and tissue of their meals, the sudden attack of large carnivores or hijackers (large, powerful animals which steal food from other animals by intimidation) could catch them by surprise. Long-term intelligence was useless to them, or worse, a dangerous distraction to creatures which had to concentrate on the near-instinctual, day-to-day rigors of survival. Short-term intelligence, however, gave them momentary cunning and craftiness just when they needed it most and, like their complex mouthparts, folded comfortably out of the way when it was not needed.

As the big herbivores died out slowly, across several hundred thousand years, the scarcity of food, and the competition with other Kafer troops and with big hijackers, served to tailor the proto-Kafers into the Kafers of today, shaping and emphasizing both the level and the dual nature of their intelligence.

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## WHAT'S FOR DINNER?

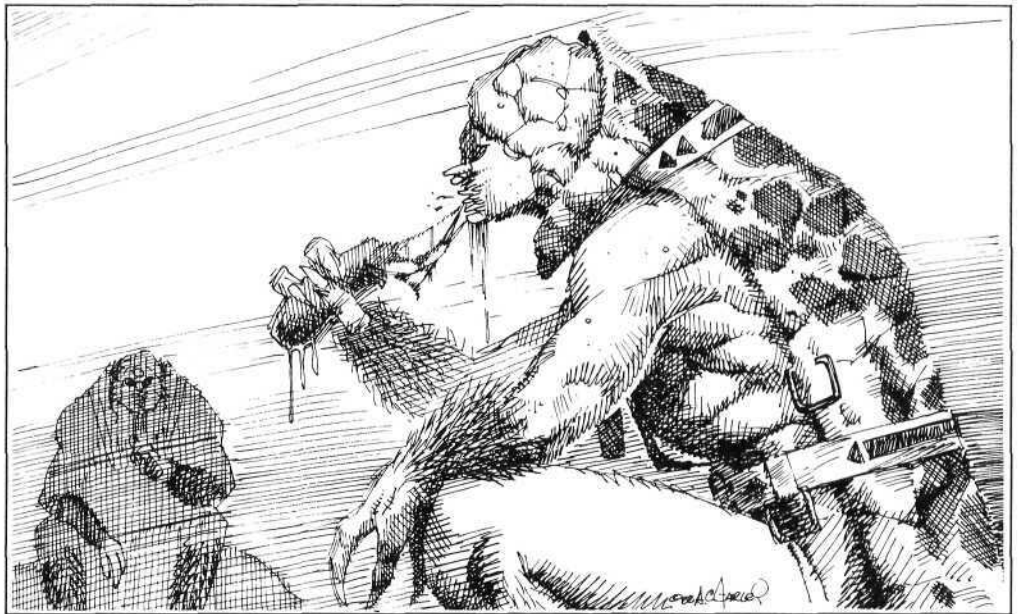
Few aspects of the history of Mankind's encounter with the Kafers are more discussed or more clouded by myths and misconception than Kafer eating habits. Early in the struggle for *Aurore*, it was discovered that Kafers, which had learned to speak German from human captives, referred to humans with a German term presumably translated from a Kafer word. The word, *fleischwessen*, translated into English as "meat being."

Humans already horrified by the tenacity and viciousness of the Kafer attack were easily convinced that the purpose of the Kafer invasion of *Aurore* was to hunt humans in order to use them as food. Kafer use of the term "meat being" is in fact rooted in their psychology and is discussed elsewhere.

Kafer food supplies analyzed at human laboratories indicate that Kafers have an omnivorous diet which includes various cereal grains and raw, chemically processed meat.

As a legacy of their origins as scavengers, perhaps, Kafers prefer their meat rotten...or at least in an advanced state of ripeness. Their preserved meats seem to have additives which preserve or enhance the odor of rotten meat, perhaps to make it more pleasing.

Humans who have tried Kafer foods have universally found them nauseating and disgusting in taste, texture, and especially smell, though chemical analysis (and field experience) indicates that humans could survive for long periods on Kafer food.



## FOOD

Kafer food is notorious among humans, who find the supplies they carry nauseating in texture, smell, and appearance. Popular myth suggests that Kafers capture humans in order to eat them, a story fostered by the knowledge that Kafers refer to humans as "meat beings."

In fact, Kafers eat almost anything, but there are no documented cases of Kafers having eaten humans. Analysis of their food proves it to be various prepared mixes of grain with partially rotten meat. Kafers appear to *like* their meat half-rotten, a hold-over from their origins as scavengers, perhaps. Kafer encampments have been observed to have racks outside Kafer dwellings on which dead animals are hung to "ripen" in the sun. One particularly unpleasant aspect of Kafers from the human perspective is their smell.

**A Side Note:** If Kafers do not eat humans, they *have been* observed to eat their own dead. They do not appear to have any belief which could be interpreted as belief in an afterlife or religion. The bodies of their dead comrades are disposed of without ceremony at dinner.

## BODILY ADAPTATIONS

Kafer appearance has been shaped by the harshness of the world on which they arose. Their sun, the Kafer name for the star means "Cruel Teacher," blankets their homeworld with actinic light much richer in ultraviolet than the light of dimmer stars such as Sol. Though Serpentinean organisms have a high tolerance for ultraviolet, this tolerance is in part affected by the evolution of protective mechanisms.

The dorso-cranial carapace of Kafers (and numerous other Serpentinean life forms) provides ready-made shade. During the star's aperiodic flares, most native life forms curl up under their carapaces in a manner similar to Earthly tortoises and "ride out the storm."

Kafer eyes are small, heavily pigmented to the point where they *appear* coal-black and featureless, and deeply recessed under heavy, mobile brow ridges. Although Kafer faces appear inflexible, they are covered with thick, plastic-appearing skin where they are not protected by horny growths or carapace. The musculature around the Kafer eye sockets allows the eyes to close down to mere slits in extremely bright light, providing maximum protection for the Kafer's vision even in mid-day light.

Although precise comparisons of human and Kafer vision are impossible without a common frame of reference, it seems likely that Kafers see farther into the blue end of the spectrum than humans do, having, in effect, the ability to see one or more colors in the low ultraviolet, as do bees and certain other Terran insects. The corollary disadvantage of this arrangement, of course, is that Kafers cannot see well in the dark, and see poorly, if at all, into the red end of the spectrum.

Red and red orange are as invisible to Kafers as ultraviolet is to humans. Combat reports from Aurore, where incident light is primarily red and orange, suggest that they have a great deal of trouble seeing in what, to humans, appears as a red-hued twilight.

## REPRODUCTION

The Kafer reproductive system has also been shaped by the harshness of conditions on the Kafer homeworld. Kafers breed quite rapidly and over a considerable portion of their adult life span. This insures a high birthrate to counter the extremely high death rate among both juvenile and adult Kafers.

Kafers are hermaphroditic, with each individual adult possessing both male and female sexual organs. Kafer reproductive activity typically results in both parents becoming pregnant, generally with two offspring each.

Kafer researchers have observed that if Kafers maintained a high reproductive rate throughout their adult lives, genetic traits favoring long life—lack of combativeness or aggression, for example—would be favored. In other words, Kafers who survived by exhibiting such traits would pass those traits on to their offspring, while their more combative relatives would tend to get themselves killed first. The Kafer birthrate is high enough for such a shift in Kafer behavior to be noticeable after only a few thousand years.

More recent studies suggest, however, that Kafer young enter a period of intense sexual activity which corresponds to human adolescence. Most Kafer young result from unions during this period, with the result that the "traditional" pro-survival traits are maintained and passed on: aggressiveness, combativeness, and *Turggh'gr* (roughly translated as "love-of-race"), but not, necessarily, long-term intelligence.

Kafers are sexually active throughout their adult lives, and the fact that they are now a spacefaring species, no longer at the mercy of harsh conditions on their homeworld, suggests that a gradual increase in long-term intelligence may be in the offing, but the precise form this new intelligence will take is a matter of considerable controversy. However, the basic form of Kafer psychology is still largely set by traits passed on during Kafer adolescence, traits which tend to lock modern Kafers into the traditional Kafer mold: a basic intelligence on a nearly instinctual level, and short-term high intelligence applied to specific dangers on an as-needed basis only.

Kafer young resemble adult Kafers, with somewhat shorter legs and arms and a four-legged stance which may mimic the appearance of ancestral Kafers. They are capable of fending for themselves almost from birth. The parent feeds them with partially digested, regurgitated food for their first three years. During this time, Kafer young are cared for and trained in the basic rudimentary aspects of Kafer culture and Kafer history as described more fully elsewhere in this book.

At three years of age, a Kafer is three-fifths the normal adult height and able to survive on its own. Ages ago, a young Kafer simply joined the troop as a junior member. In more recent times, young Kafers join training camps established under the Associative government, where they are assigned their adult occupations and begin training in them in whatever specific technical skills their jobs will require of them.

At approximately age six, Kafers enter a period which corresponds to human adolescence. They become reproductive and, in fact, spend a period of from three to six years doing little else but reproducing and raising the resultant young.

After raising one, two, or sometimes three pairs of young, Kafers re-enter a period of training for several years, and then are posted to their first place of duty. Kafer society (see "Kafer Sociology") makes no distinction between military and civilian service. A Kafer may serve as a factory worker, teacher, or a soldier almost interchangeably, and may shift between different duty assignments during its life.

Kafers remain sexually active throughout their lives, but fertility appears to decrease gradually but steadily from their peak fertile years during "adolescence." Some 90 percent of all Kafers are the product of reproductive activity between six- to nine-year-old Kafers. This means that the genes passed on to subsequent generations of Kafers favor the traditional pro-survival traits of aggressiveness and combativeness, rather than traits which could have a "civilizing" influence on the Kafers as a species. There is some evidence that reproduction among those Kafers on active military duty is artificially inhibited in some manner, although the precise details of this inhibition are unknown.

## GEOMETRIC PROGRESSION

*Kafers remain a turbulent and combative species. Of serious concern to Terran observers is the discovery of the high Kafer birthrate. Each individual Kafer has, on the average, six offspring during its life, and many have as many as 12 or 14. For millennia, the high death rate among Kafers in the wild meant that the high birthrate was necessary simply to maintain the species at a constant level.*

*With the rise of cities during the past several thousand years (see "Kafer Sociology"), and, perhaps more importantly, with the rise of Kafers as a spacefaring culture with access to other worlds, the death rate is quite low, even for a species engaged in wholesale warfare against the Ylii and against humanity. Kafer numbers are growing at an astonishing rate, a rate made steeper by the fact that fully functional, adult Kafers are produced in roughly half the time it takes to produce an adult human.*

*It is entirely possible that humanity could be overrun by Kafers through the geometric assault of overwhelming numbers alone.*



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*Danger causes in Kafers a chemical response analogous to the flow of adrenaline in humans. Instead of increasing strength or responses, however, the Kafer response stimulates thought processes. It is believed that the hormone involved acts as an enzymatic catalyst in the chemical reaction which transmits neural impulses.*

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## KAFER INTELLIGENCE

The most striking feature of Kafer behavior noted by humans who have come in contact with them is the fact that they appear to be quite dull—even stupid—until stimulated by combat or other serious threat, by pain, or by the blows of a Kafer officer. The change in Kafers observed during combat is striking: one moment they seem to be milling about in confusion, perhaps with their officers striking them with rods or whips, and the next moment they are transformed into cunning, keenly intelligent soldiers.

The dual nature of Kafer intelligence confused human observers long after the initial contacts with the race. The lesson proved to be a costly one, for time and time again, human troops confronting Kafers believed that they had caught the Kafers in total confusion, only to have the enemy fade away into the bush, then strike with deadly precision at the humans' weakest points.

In combat, Kafers are wily, crafty opponents. They may feign death, or hide themselves in imaginative and unlikely places. They seem able to identify human officers with uncanny precision and ease, even when the officers wear no rank and carry line troopers' weapons, and will spare no effort to kill those officers in order to sow confusion within human ranks. They are able to move over almost any type of ground quickly, silently, and seemingly invisibly. They show a terrifying ability to identify the weak points in a human defensive line and exploit them. They recognize human bonds and use them, taking hostages in order to win a tactical advantage, and using human captives as shields. Though they seem not to understand concepts such as compassion or mercy, they have been known to play on these emotions in order to trick human forces. And they seem to have an almost superhuman grasp of small unit and individual tactics, which allows them to engage in flanking maneuvers, penetrate tightly knit human lines using camouflage or deception, and set up deadly crossfires, often with multiple back-up layers, so that a second hidden Kafer nest opens fire just as the human forces close in on or destroy the first.

## THE PHYSIOCHEMICAL BASIS FOR KAFER INTELLIGENCE

The dual nature of Kafer intelligence has a physiochemical cause. In their basic intelligence state, Kafers are indeed slow-witted and slow-thinking. Danger, pain, or the threat of imminent death boosts their intelligence almost instantaneously, however, resulting in a startling and dangerous transformation.

Danger causes in Kafers a chemical response analogous to the flow of adrenaline in humans. Instead of increasing strength or responses, however, the Kafer response stimulates thought processes. It is believed that the hormone involved acts as an enzymatic catalyst in the chemical reaction which transmits neural impulses.

In humans, nerve impulses travel from nerve cell to nerve cell across the synaptic gaps between them, through the release of acetylcholine or some other similar chemical transmitter at the synapse. In Kafers, the chemical transmitter involved works at one level of efficiency in the organism's basic state, and at a much higher level of efficiency in the presence of the Kafer adrenaline analogue. As a result, Kafer thought processes are both much faster and much "cleaner," crisper, sharper, and stronger when under the influence of the hormone. The secretion takes effect within a few moments of the initial stimulation. It lasts for at least 30 minutes after stimulation ceases. Kafers tracking a fleeing human on foot will remain intelligent, able to bring considerable cunning and tracking expertise to bear on the hunt, until perhaps 30 minutes after they lose all trace of their quarry. At that time they revert to their basic intelligence level.

## CUNNING KAFERS

It has been noted that few things in the universe are as *stupid* as a Kafer in the opening moments of a firefight...and few things are more clever once the battle is underway. The Kafer physiochemical response to pain or danger results in a transformation in their behavior which inexperienced humans find difficult to credit.

In the most famous case, on Aurore, one intelligence-boosted Kafer hid itself inside the carcass of a cow killed by mortar fire a few moments before. As a French infantry company passed, it opened fire from a slit in the animal's belly and sprayed the entire column with fire, killing four and wounding nine. When the French troops finally realized the fire was coming from the dead cow, they riddled the corpse with machinegun fire, then approached cautiously.

The Kafer inside was badly wounded, but managed to feign death until the patrol had turned and was departing down the road. Then it opened fire again. In this second exchange, it killed two, including the captain in command, and wounded a third.

This time the soldiers blasted the corpse with grenades. Satisfied that the Kafer was dead, they continued on the patrol again. Unknown to them, a second intelligent Kafer had been hiding nearby, holding its fire as it observed the battle. With uncanny speed and silence it slipped from its hiding place and squeezed itself inside the now-mangled remains of the cow's hind-quarters, then opened fire. The French soldiers, *certain* that nothing living remained in the dead cow, advanced rapidly in that direction, thinking the fire was coming from some unseen sniper in the distance. Three more died and five more were wounded before someone realized that the fire was coming, once again, from the same dead cow. The second Kafer was killed.

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The final tally was two Kafers dead, against nine humans dead, and 15 wounded in an engagement which one English speaking French colonist later described as "the Battle of Hamburger Hill." In this instance, at least, Kafer cunning and intelligent resourcefulness had cost the human forces dearly. Because of garbled retellings of this episode, many French soldiers believe that Kafers are capable of movement for up to two hours after their deaths.

In another case on Aurore, a lone Kafer was found obviously incapacitated by a serious abdominal wound. It was clearly unarmed, its thudgun lying in pieces several meters away.

As a Tanstaaf patrol approached cautiously, it raised its hands in obvious mimicry of a human surrender gesture. Thinking they had achieved the first capture of a live Kafer, the patrol rushed forward hastily. The Kafer doubled over in pain, then pulled open the edges of its wound, exposing and arming a hand grenade. The explosion destroyed the Kafer and killed two men.

As a final example of Kafer cunning, endurance, and persistence, the story is told of the lone survivor of a Kafer band which buried itself inside a muddy embankment under the bodies of its comrades during a firefight. Breathing and watching through small holes opened through the mud by its pedipalps and tongue, it witnessed the arrival of human reinforcements.

Evidently kept in an intelligent state by both a wound and the sights and sounds of so many humans close at hand, it remained hidden in the mud as humans cleared Kafer bodies from the position and then proceeded to build an army command post. Realizing it was now inside a military encampment perimeter, it remained where it was, unmoving, for two days, until it noted the arrival of several important looking humans aboard military hovercraft.

Somehow it distinguished the highest ranking of the officers from the rest. That night it emerged from its hiding place, approached the bright lights of the central compound area unseen, and killed General Franz Meyer, commander of a recently arrived German mercenary contingent.

In the confusion it escaped, apparently by blending perfectly into the shadows of the base perimeter and gradually working its way past alerted and angry guards. Though Kafers possess poor or nonexistent night vision, this one navigated to safety by steering clear of the camp lights, and possibly by reaching a nearby river and floating downriver on a log. (At least the tracks found on the next morning ended at the river.) The attack was so perfectly executed that until clues such as the shallow opening in a nearby mud hillside were discovered, it was assumed that General Meyer's assassination had been planned and executed by a so-called "ninja Kafer."

Episodes of Kafers taking advantage of human compassion are legion. On many occasions, lone human soldiers have been kidnapped from their lines and tortured or seriously wounded and left as bait in order to draw human rescuers into an ambush with their cries.

## **INCREASED KAFER INTELLIGENCE**

*Repeated exposure to danger or violence increases a Kafer's intelligence over a period of years. The average basic Intelligence for Kafers who have survived 20 years or more as an adult is 6 or 8. Such intelligence levels will be found consistently among starship crews, and in other elite or hand-picked military units.*

*Rare individuals will be found with base Intelligence levels of 10 or 12. These individuals will nearly always be encountered only as gnich\* high in the Associative government or the military hierarchy. The role of gnich\* in Kafer society is discussed fully in the section of this Sourcebook entitled "Kafer Sociology."*

*No matter how high their base Intelligence, Kafers never have their Intelligence levels increased above 14 during combat.*

## PERMANENT KAFER INTELLIGENCE

*One of the most fascinating aspects of Kafer dual intelligence is the fact that repeated stimulations result in a permanent increase in an individual Kafer's intelligence. Any one increase is very small, but measurable. In the course of many years, Kafers who survive numerous campaigns and face death, danger, or pain frequently can become as intelligent as typical humans.*

*Much of the modern course of Kafer exploration and warfare has been set by experienced Kafer veterans who are intelligent enough to plan long-term operations. Kafer starship crews are made up entirely of the equivalent of human NCOs and are veterans with 20 or more years experience.*

*The ramifications of this long-term intelligence increase are discussed more thoroughly in the section of this Sourcebook entitled "Kafer Sociology."*

## INTELLIGENCE AND TRAINING

Jokes about Kafer behavior circulating among humans often hinge on the fact that Kafer officers have to hit their soldiers with something along the lines of a two-by-four to get their attention. The joke misses an important point: Kafer officers do in fact hit their troops *in order to make them intelligent enough to understand the order.*

Kafers have a basic intelligence which, by human standards, would amount to an IQ of perhaps 40. It is important to note that a human being with an IQ of 40 falls within that range of people who are considered ineducable—capable only of being trained to care for themselves and perform simple tasks. This is not the case with Kafers, however. Kafer intelligence is of a markedly different type than human intelligence in ways which are still not thoroughly understood, and comparisons are not easy.

Both education (encompassing such tasks as reading, math, science, and history) and training (encompassing skills such as speaking, functioning within Kafer society, and caring for oneself) are accomplished among Kafers through the repeated use of pain, either through physical blows or through stimulation by devices such as electric prods or whips. Such stimulation temporarily increases a Kafer's intelligence slightly, and also seems—to an even greater degree—to increase the Kafer's ability to retain information.

Thus, Kafer young who are stimulated to learn, for example, how to modify Kafer phoneme-glyphs to express various emotions, do not forget the lesson as soon as the effects of the initial "stimulation" fade away. In fact, Kafers appear to have better memories than most humans. Their written language requires the memorization of literally thousands of phoneme-glyphs and their associated modifier variants. Learning such material requires stimulation, but there is no evidence that Kafers must re-learn the lesson over and over. Human children learn through repetitions of material; Kafers stimulated through pain or physical threat retain the lesson forever.

Retaining information, especially abstract concepts such as mathematics, is quite different from using it. Kafers at their base intelligence level might know the Kafer equivalent of Planck's Constant (necessary for understanding quantum mechanics and, hence, stutterwarp theory) and might even be able to quote the equation, but they would be utterly incapable of *using* that information in any meaningful way. For creative thought, or for the useful application of knowledge, "stimulation" by blows or electric shock is necessary.

## KAFER CIVILIZATION

This fundamental difference between human and Kafer thought processes explains how any advance at all has been possible in Kafer history. Civilization—any civilization—depends on the transmission of that culture's records, technical data, and history from generation to generation. Such transmission is vital or the lessons of one age will be forgotten by the next, and scientific and technical advances will never grow beyond the most primitive of tools and observations. The growth of technology required for every advance from the discovery of fire to the invention of the stutterwarp, for example, depends on the observations and inventions of one generation being drawn upon by the next, making possible its observations and inventions.

It appears that Kafer memory even in the unstimulated state is sufficient to retain even highly technical data, if it is presented to the Kafer in the first place while he is being stimulated. Indeed, one entire Kafer occupation can best be translated as "scribe," and involves the rote recording of data which is largely incomprehensible to the Kafer recording the data, but which is recorded faithfully nonetheless. In past ages, scribes recorded data in books. Kafers have had computers to assist in the making of such records for several centuries now. These computers are designed so that they can be operated even by unstimulated Kafers. (More about Kafer computers is discussed both under "Kafer Sociology" and "Kafer Technology.")

To use recorded or remembered information, of course, Kafers must be stimulated through pain or severe threat to raise their intelligence sufficiently for the task at hand.

The referee should always bear in mind that while the Kafer civilization may seem inferior, it is as valid as any human civilization. Even though the average Kafer is not as smart as the average human, Kafer society on the whole is just as vibrant, just as capable of growth and expansion, and just as capable of adapting to changing conditions as any human civilization.

Kafers are dangerous opponents in combat, but they also present a challenge to humanity on a scientific and technical level as well.

# Kafer Psychology

This chapter probes the way Kafers think, their view of the universe, themselves, and their view of humanity, in the same way that aspects of Kafer anatomy have been shaped by their homeworld, Kafer thought processes are shaped by their history, their culture, and most especially by the fact of their short-term intelligence boost through pain, threat, or nearness of death.

## LOVE OF VIOLENCE

Kafers love violence.

This statement seems absurdly self-evident to any human soldier or colonist on Aurore or on any other world which has suffered the horror of the Kafer onslaught, but the statement is necessary for full understanding of the way Kafer culture works, and for full understanding of the way individual Kafers think.

As was discussed in the section entitled "Kafer Physiology," danger releases in Kafers a chemical response analogous to the flow of adrenaline in humans, instead of increasing strength or responses, however, the Kafer response stimulates thought processes. It is believed that the hormone involved acts as a catalyst in the chemical reaction which transmits neural impulses.

In humans, nerve impulses travel from nerve cell to nerve cell across the synaptic gaps between them through the release of acetylcholine, or some similar chemical transmitter. In Kafers, the chemical transmitter involved works at one level of efficiency in the organism's basic state, and at a much higher level of efficiency in the presence of the Kafer adrenaline analogue.

This physiological response has two results: it increases Kafer intelligence dramatically for short periods of time, enabling the Kafer to respond intelligently to immediate danger, and it increases the *basic* Kafer intelligence slightly but permanently, allowing Kafers to become gradually more intelligent over a period of many years.

Both of these responses have dramatic implications for the way Kafers think, and for the ways in which they perceive themselves and others.

## KAFER MYTHS

Much Kafer culture and cultural training (that body of information which instructs a young Kafer in its place in Kafer society) is passed on to young Kafers by the parent during its first three years of life. This instruction largely takes the form of what human observers refer to as "bedtime stories," which take the form of folktales or myths designed to instill certain attitudes and beliefs in Kafer young.

While all Kafer training requires a certain level of "stimulation"—Kafer parents reciting bedtime stories to their young accompany the stories with frequent cuffs, slaps, bites, scary promises, and even throwing the young around the room—Kafer memory is, on the average, more efficient than human memory. While Kafers at their base levels of intelligence have trouble making decisions or even obeying orders without at least some stimulation, they easily retain the stories and myths heard in their first three years of life. What's more, the attitudes impressed upon them by those stories are retained without the need for boosting intelligence, especially those themes which recur through hundreds of stories.

Kafer stories are the heart of Kafer history. The science of history, as such, does not exist, but large bodies of Kafer history, extending back for many thousands of years, exist intact, remembered by each individual Kafer in the form of hundreds or even thousands of legendary tales,

"Legend" to humans carries with it the implication that the story is, at best, a dressed-up and faultily remembered tale which *might* have its basis in fact. Kafer legends, in so far as they can be proven, seem to form the heart of Kafer culture, the cultural glue which binds one Kafer generation to the next and gives them their identity as a long-lived race with its roots extending into the distant past. In this sense, there is no such thing as "Kafer prehistory." The Kafers remember *history*. Whether this history is true or false is not important. What is important is that the Kafers believe it to be fact, recorded and transmitted as legends and stories across what may be several thousand years.

## HOW TO INSULT A KAFER

*Few humans have ever had any desire to deliberately anger or insult Kafers. There have been instances, however, when human researchers wanted to raise a Kafer's intelligence enough that they could communicate with it, without being forced to enter its cell to give it a thrashing. Some soldiers have bragged that insulting Kafers during close combat rattles them enough to throw off their judgment, a contention which has not been reliably proven. Whatever the motive, humans who wish to anger Kafers have had remarkable success by insulting the legendary Kafer figure, Striker of Stars.*

*Suggesting that Striker of Stars eats its own children is one classic insult which works well. Another is calling it "meat-being," which carries the connotation of being of no account or worthless.*

*Perhaps the most vicious invective of all is to call Striker of Stars a "smart barbarian," casting this most revered of Kafers in the legendary role of the destroyer of civilizations. This insult is guaranteed to upset any Kafers which hear it.*

*It is also almost guaranteed to raise their intelligence. Extreme caution in doing so is recommended.*

## PRISONERS OF THE KAFERS

*Humans who find themselves prisoners of the Kafers are in for a rough time. In the first place, Kafers view humans as the Aach\*ah of legend and story and are not predisposed towards treating them kindly. Secondly, Kafers seem harsh and cruel among themselves, engaging in rough "play" which is frequently life-threatening—a result of their (to humans) peculiar psychology which glorifies violence in any context.*

*Add to this the fact that humans and Kafers do not understand one another. At least one human prisoner is thought to have died of a heart attack when a Kafer began curiously examining him with its oral pedipalps. After the Kafer broke several fingers manipulating them with its mouth, the human shrieked "It's eating me!" and died.*

*Most importantly, Kafers, not knowing any better, treat humans as they treat each other when questioning them or giving them orders. They beat them before the question or order is given in order to make them smart enough to respond. This (from the human point of view) random and senseless torture is more likely to break humans than to condition them, and the single greatest danger of being held captive by the Kafers appears to be the danger of insanity.*

## THE SMART BARBARIANS

Kafer history, as reconstructed by human experts, is discussed elsewhere in this Sourcebook, under the heading "Kafer Sociology." One recurring facet of Kafer history is the cyclic nature of early Kafer cultures. Again and again, Kafers would discover safety on their dangerous and turbulent world by banding a number of nomadic troops together into a "safe place," a city sitting astride an important trade route.

Such cities prospered for a time, but in each case the city dwellers became "civilized." City dwellers did not face death and danger regularly, as did their nomadic, still-wild kin in the wilderness. With few opportunities to increase their short-term intelligence, they lost their opportunities to gradually increase their long-term intelligence as well. Within a few generations, typical city dweller Kafers would have a uniformly low basic intelligence. Time after time, stupid but civilized city dwellers were then confronted by large bands of uncivilized but crafty barbarians pounding on their city gates.

The outcome of these encounters was never in doubt. Even shocked by the encounter into momentary, short-term intelligence, the city dwellers were not as bright as the barbarians. They lacked the barbarians' native skill, cunning, and training in combat, and were no match for them in battle.

The Kafers became locked by the nature of their dual intelligence into a recurring cycle: one Kafer group settled down and built cities, developed civilization, grew decadent and stupid, and was overthrown by smart barbarians. The conquerors moved into the city (or built a new city on the ruins of the old: see note on Kafer *tells* under "Kafer Sociology"), created a civilization of their own, became soft and stupid in their turn, and were overthrown by the *next* band of smart barbarians. The same basic cycle must have repeated itself tens of thousands of times throughout the course of Kafer planetary history.

## STRIKER OF STARS

The semi-mythical Kafer figure known as "Striker of Stars" set the course for modern Kafer civilization several thousand years ago. By introducing the concept of systematized violence as a necessary and integral part of society, the new Kafer city culture (described in more detail elsewhere in this Sourcebook) was able to maintain its vigor, while pursuing the advantages of various technological developments which could only be made possible through the "civilized" pursuits of science and record keeping.

"Striker of Stars" is the most revered figure of all Kafer history and legend, combining in one being elements of Jesus (the Messiah sent by God), Mohammed (the prophet of God), Abraham (the father of the people), and Moses (the deliverer of the people from bondage). While Kafers do not worship Striker of Stars, they reserve for it an attitude of profound reverence which approaches religious adoration. Striker of Stars, they maintain, was the Kafer who set Kafer civilization free from the cyclic rise and fall of the cities to the smart barbarians.

Striker of Stars developed the concept of *Garruthr*, which might translate best as "violence is the lifeblood of the people." It incorporated the idea that violence and bloodshed were necessary for a culture's vitality, and encouraged blood sport, elaborate hunts (of wildlife, Kafer prisoners, and even citizen volunteers), and the ritual of *Kalaar*, which is similar to the Terran concept of vendetta or blood feud. With the vast majority of Kafer citizens challenged daily by death duels, *vakach\** (fight-for-fun), and by the bloodlust of sport through participation or as spectators, the basic intelligence level of Striker's civilization was maintained once its population made the transition from nomads to city dwellers.

(Note: These and other Kafer phrases are discussed in greater detail in the section of this Sourcebook entitled "Kafer Language.")

By allowing a city culture to endure the depredations of barbarian nomads, Striker of Stars made possible the appearance of technology. The original cities or "safe-places" had been fortresses erected on the sites of chance-discovered ore outcroppings, which naturally became the sites of early metal smelting and industry. With the survival of a single city culture, technological advances could be preserved from generation to generation, new technologies could evolve, and Kafer science could appear. The advantage won by that first city state was sufficient to destroy or enslave all of the nearby Kafer nomad barbarians, and to make possible the spread of long-term city cultures across the face of the planet.

## LEGACY OF THE SMART BARBARIANS

Striker of Stars lived over fifteen hundred years ago, and it has been at least that long since a civilized Kafer city was sacked by a troop of "smart barbarians." The image of the smart barbarian still has a powerful hold on the Kafer mind, however.

For Kafers, the *Aach\*ah*, the "smart barbarian," occupies a place similar to that of Satan in western Terran cultures. Kafer young are told story after story with but one theme: the *Aach\*ah* are waiting to kill the civilized Kafer who drops its guard. Kafer young are frightened into intelligence enough to learn by warnings that the *Aach\*ah* are at the door. The obedience of the young is won by the promise that the *Aach\*ah* have come to eat them. Every adult Kafer carries with him an almost inborn fear and loathing of the enemy of Kafer civilization, the dread and dreaded *Aach\*ah*. It is not a subject which Kafers can deal with rationally.

## SELF-AWARE KAFERS

The underlying motivation behind Kafer culture is not so much the fact that Kafers become more intelligent when they are threatened. Intelligence of itself has nothing particularly to recommend it; countless animal species are *not* intelligent and get along fine without it—and never seem aware that they're missing anything.

For Kafers, living partly in one world and partly in another, the difference makes itself keenly felt. An unstimulated Kafer is not *aware* enough of its own being to *realize* it is lacking anything beyond, perhaps, a vague yearning for "something" which might be satisfied by a good fight or the sight of an enemy's blood.

For a stimulated Kafer, however, the outlook is entirely different. A Kafer in combat, facing death, feels truly alive and self-aware in a way it can never experience at any other time. If it survives long enough, its basic intelligence level is raised to the point where it can correlate combat or danger with its feeling of self-awareness and clarity of mind.

For this reason, Kafers have been *referred* to as "violence junkies," addicted to violence because *only* when they are stimulated—through personal threat, pain, the sight and smell of blood and the associated memories of combat and the nearness of death—do they feel really alive.

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*"Striker of Stars" is the most revered figure of all Kafer history and legend, combining in one being elements of Jesus (the Messiah sent by Cod), Mohammed (the prophet of God), Abraham (the father of the people), and Moses (the deliverer of the people from bondage). While Kafers do not worship Striker of Stars, they reserve for it an attitude of profound reverence which approaches religious adoration.*

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## FEARLESSNESS

The result of this is to condition Kafers towards an acceptance—even a love—of danger and death. Human observers who commented early in the Kafer invasion of Aurore that Kafer soldiers appeared to be utterly without fear were proven correct. Kafers feel something analogous to fear...but they *like* it, and that makes them incredibly dangerous as foes.

This love of danger is tempered by the other aspect of the Kafer response to danger, and that is their increased intelligence. Intelligence boosted Kafers do *not* simply charge into the open and invite death, but become crafty and cunning, infused with a desire to live as long as possible so as to do the maximum possible damage to the enemy, and importantly, *to maintain the thrill of danger and near-death for as long a time as possible*. Kafers do not deliberately court suicide, but they are more than willing to flirt with it in order to kill the enemy and to extend the feeling of self-awareness.



## KAFER FIGHTS

*It has been observed that Kafers love to fight among themselves, and that they do so without regard to what passes for rank among them. These fights appear to be genuine responses of anger to some perceived slight, insult, or territorial trespass, but they rarely, if ever, result in drawn weapons or a fight to the death.*

*These exchanges, called Vakach\* (fight-for-fun), seem to perform an important social function, similar to grooming among Terran primates, and can be compared to good-natured rough-and-tumble among human soldiers or school children.*

*Such fights are always the focus of intense interest among other Kafers, who gather around to watch, to cheer winner and loser alike, and to occasionally join in, turning a one-on-one match into a free-for-all riot.*



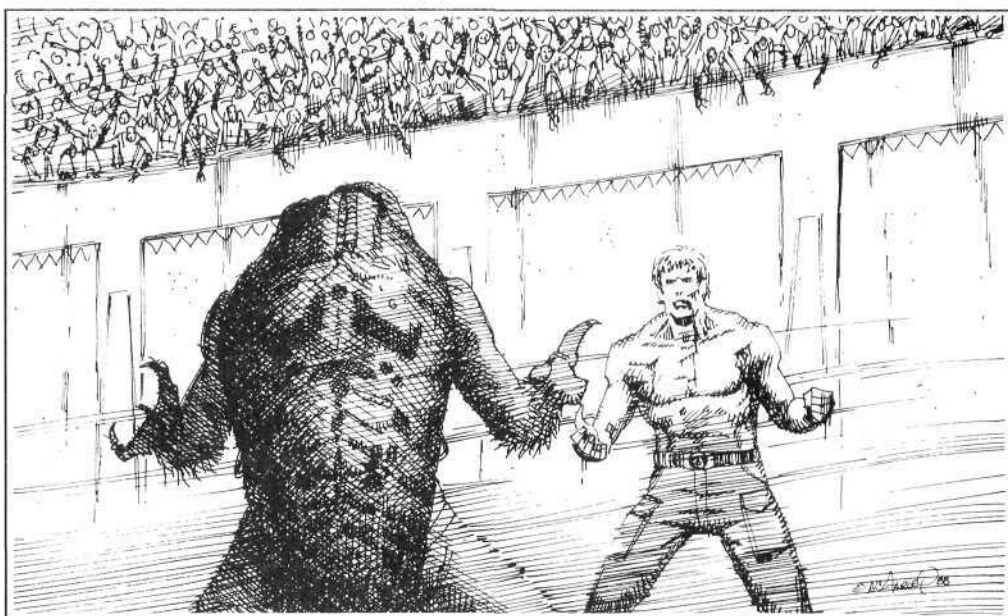
## FORCED COMBAT

In keeping with the notion of Vakach\* as a social necessity, it appears that any combat serves much the same purpose for Kafers, who enjoy watching such fights almost as much as they like to engage in them.

Human prisoners who have escaped from Kafers have reported on numerous occasions being forced to fight one another. Cooperation is induced through beatings and more severe tortures. This "arena combat" is generally to the death and may be watched by many Kafers who surround the combatants and encourage them with cheers and insults. Winners are forced to kill the losers and are threatened with torture if they refuse, or the losers are killed outright by the Kafer crowd.

The almost ritual significance of challenge and combat among Kafers has led to human prisoners issuing formal challenges to their captors to win recognition—or at least an end to suffering—for the captives. On at least three occasions, human prisoners have challenged one of their Kafer captors. In each case, the challenge was accepted with apparent good nature. The one human who survived his challenge experienced no hard feelings or reprisals from the other Kafers.

Kafers may respect prisoners who attempt to fight back by challenging them to formal combat. More likely, the combat fulfills its normal social function—making the Kafers feel good—with the challenge and novelty of hand-to-hand combat with an Aach\*ah in the flesh.



## KAFER BEHAVIOR

Every aspect of Kafer behavior is influenced by their psychochemical conditioning. A senior (i.e., veteran and more intelligent) Kafer will cuff, strike, or shock a Kafer *before* it asks a question of it, in order to make it aware enough to realize it is being questioned. Kafer officers in bands under fire will strike and kick their troops, then deliver their orders...generally orders to seek cover until the Kafers can react strongly to the combat threat and respond with their amazing tactical prowess in battle. Interrogations suggest that the Kafer equivalent of school, with a parent or with a trainer, consists of exhaustive rounds of blows or shocks followed by readings or lectures, until a faltering intelligence requires another jolt to "wake the student up."

Human prisoners have reported that Kafers, seemingly unable to understand that this correlation between pain or violence and intelligence may not exist in other species, struck them before each order or question.

In fact, the idea that an individual might be struck as punishment for failing to respond properly seems utterly alien to them. In several cases, Kafer prisoners have been taken and held long enough for the original fear and novelty of their situation to wear off, allowing them to lapse into their low, basic level of intelligence. Kafer prisoners struck by vindictive human guards have been seen to sit up straighter, appear more alert, and become completely attentive towards their tormentors. If no questions or orders are forthcoming, they appear confused, even depressed.

Socially, Kafers appear to be as rough and violent with one another as they are with enemies. They have something like a sense of humor, but it is more closely akin to slapstick or a vicious "April Fool" joke than to word play or more subtle humor. Kafers have been known to rock back and forth, their pedipalps exposed and twitching wildly, at the sight of another Kafer tripping and falling or cutting itself accidentally with a knife. It is believed that this response is similar in nature to human laughter.

Fights are common...so common that they appear to be divided into a large number of different categories. Social fighting occurs on an almost regular basis, and though it rarely results in death, it is vicious enough that observers have trouble determining how serious the combatants are in their struggle. Serious breaches of social decorum, deadly insults, and the like may result in *Kalaar*, or vendetta, which nearly always results in death, and which is categorized by a highly formal challenge and acceptance which has characteristics of a ritual dance.

Fights with enemies—such as humans—are brutal, sharp, and efficient. Though there seems to be evidence that Kafers prefer to fight an enemy directly, hand-to-hand, rather than through spacecraft or nuclear warheads, they will employ *any* weapon at their disposal to eradicate the enemy, taking prisoners only when they are needed for a specific purpose such as interrogation.

The threat-increased intelligence reaction seems to occur in all forms of combat, though the change is much deeper, stronger, and longer lasting in cases where the Kafer's life is genuinely at risk, and only slight to moderate in such instances as when an officer strikes a soldier to get its attention. As with humans on drugs, some Kafers appear to need stronger and stronger stimulation to produce the same increase in awareness, though this is relatively rare.

Even rarer are those Kafers which appear to develop a psychological dependency on the euphoria of facing death. These Kafers apparently seek to commit partial suicide—taking themselves to the brink of death through self-strangulation, poison, or bleeding—as frequently as possible. Evidence suggests that most of these individuals manage to face death a little *too* closely sooner or later, and eliminate themselves from the Kafer gene pool.

Minor forms of self-destructive behavior are observed commonly among Kafers. The ancient human soldier's amusement of stabbing around his outspread fingers on a table with his knife is high art among Kafers, though the practice appears to be frowned upon by Kafer superiors. Observers seem to become as excited as the Kafers actually practicing this sport, and the sense of danger/euphoria appears to spread among watchers and participants alike. Numerous Kafer bodies have been found missing fingers or toes—evidence of past games of "chicken."

## RESPONSE TOWARDS AUTHORITY

The intricacies of Kafer authority and government are still being sorted out by human researchers. Kafer government, the Associative, is discussed in greater detail in the section of this Sourcebook entitled "Kafer Sociology."

In psychological terms, every Kafer is balanced between several conflicting motivations in its daily life. "Officers"—the term is imprecise, but is used here to denote Kafers set in authority over others—are perceived every day as minor threats. They wield clubs, canes, whips, and electric prods with every order or question, and *must* be perceived as threats for the orders to make sense. This is balanced with each Kafer's inborn *Turggh'!gr*, or love-of-race: a sense of duty mingled with destiny which teaches that such orders are delivered in an individual's best interests, and in the interests of the Kafer species.

The legend of the *Aach'ah* plays a part in this inner struggle as well, for the officers who deliver the orders—and the blows which precede them—are without exception smarter than the average Kafer they are dealing with...in Kafer terms, smart barbarians!

While fights between individual Kafers are common, it has been pointed out that such fights only rarely are fought to the death, since at some point in the battle both Kafers will "wake up" enough that they realize the fight is pointless and stop. Feuds requiring bloodshed (*Kalaar*) are common and frequently do result in death, but these are fought under strict rules which govern where the hunt may be conducted, and how the victim may die.

The traditions and laws surrounding *Chok'aav* (roughly: veterans) and *Gnich\** (roughly: Thinking Ones, or Planners) create a kind of awe in lower-ranking Kafers. *Chok'aav* and *Gnich\** are perceived as threats and are probably linked in the Kafer mind with smart barbarians, but these almost instinctual reactions are balanced by *Turggh'!gr*, by duty, and by the understanding (however vague) that civilization, as handed down by Striker of Stars must be maintained by obedience, and by struggle with comrades against a common foe.

It is uncertain how prevalent mutiny—in the sense of lower-ranking Kafers attacking and killing disliked "officers"—might be within the Kafer ranks. Certainly, more latitude may be allowed Kafer rankers than humans in what they can do with an officer. Kafers have *never* been observed to attack an officer beating them at the beginning of combat, probably because the presence of the enemy and hostile fire creates a clear and obvious danger which the Kafers can respond to. In such circumstances, even the dumbest Kafer can recognize the fact that the officer is hitting it to wake it up to the real threat.

In other situations, however, low-ranking Kafers have been observed challenging and fighting officers. These battles do *not* appear (as was originally supposed) to have anything to do with promotion-by-assassination or with establishing dominance between Kafers. It may well be that human comparisons break down completely with Kafers at this point, so alien is their psychology.

Fights with officers may fall into the same general classification of behavior as "friendly" fights with other, equal Kafers, serving much the same function among Kafers as grooming does among certain species of terrestrial apes. They fight because it feels good, performs an important social function, and generates self-awareness enough to remind each Kafer of who and what it is.

## MEAT BEINGS

*Early in the hostilities with the Kafers, humans were chilled to discover that the Kafer term for humans was "meat being" (German: fleischwesen). // was assumed that this dire label meant the Kafers were raiding humans in order to replenish their larder.*

*In fact, careful study of Kafer language suggests that the Kafer phoneme-glyph gnakshik!, usually translated as "meat being," refers to a common Kafer food animal, and may specifically refer to that animal after it has been dead for several days—and ready to eat. It appears that use of the term is intended to be an insult, not a request for groceries.*

*Kafers are extremely sensitive to the idea that an enemy might be more intelligent than they are. The Kafer gnakshik! has a similar meaning to the American epithet "turkey," the German "Schwein" (pig), or the British "stupid cow."*

*While hardly flattering to the recipient, like most insults the term may be reassuring to the user.*

## KAFER PHILOSOPHERS

At Station Arcture, human troops engaged in a rescue of prisoners at that research outpost reported an encounter with an unusual Kafer whom they named "Sartre." Sartre appeared to have learned enough French (possibly from its captives) to be able to read a book by the French existentialist philosopher, Jean-Paul Sartre.

That book, *The Wall*, seemed to have made a profound impression on the Kafer, particularly Sartre's idea that complete being and self-awareness is felt only at the point of death.

The Kafer "Sartre" appears to have been unusually intelligent for a Kafer, perhaps one of the Gnich\*, or Planners. Certainly, interrogation of human prisoners freed at Station Arcture indicated that "Sartre" seemed to be almost obsessed with understanding the humans. In reading *The Wall*, this one Kafer seems to have gotten a glimpse of at least one small overlap between Kafer concepts and human ideas. It is uncertain whether the Kafer assumed that all humans hold the existentialist philosophies presented in *The Wall*, or that it realized that humans only rarely take their philosophers seriously.

For the Kafers, the concept that an individual feels truly alive and self-aware only at the point of death is less philosophy than a basic statement of fact and being.

## HATRED/FEAR OF HUMANS

In the early stages of the Kafer assault on Aurore, human defenders had difficulty understanding the absolute ferocity of the attacking Kafers. The Kafer assault on the human colonies at Eta Bootis were genocidal in their savagery, and the cruelty of their treatment of prisoners defied not only accepted notions of waging war as humans understood it, but common sense.

Full understanding of the situation came when Kafer prisoners were finally taken and interrogated, and when humans who had been held for considerable periods of time by the Kafers were made well enough to be questioned. Humans, it appeared, fit perfectly the Kafers' childhood image of the *Aach\*ah*....

Seen in this light, the Kafer reaction to humans becomes logical. Humans are the "boogeyman" which has haunted every individual Kafer from shortly after birth all the way to its death for uncounted thousands of years...the destroyers of civilization, the eaters of babies, the defilers of the proud and glorious legacy of Striker of Stars.

Unfortunately, this realization does little to solve the problem between the two races. Kafers are not capable of a rational assessment of the situation, and it seems evident that they mean to exterminate humanity, thereby eliminating a threat to their race and to their civilization. It appears that the *only* way the war between Kafers and humans is going to end is with wholesale genocide, and the reduction of one side or the other to stone-age savagery...or extinction.

## SELF UNDERSTANDING

The nature of Kafer psychology appears to keep them from becoming aware of their own situation. The necessity of striking another Kafer to make it smart enough to understand is so completely a part of Kafer being that they think about it no more than a human thinks about smiling to express pleasure. For reasons explained under "Kafer Technology," Kafer medical technology is almost nonexistent, and they seem unaware of the correlation between the adrenalin analogue hormone and the changes in their intelligence.

"Smart" Kafers, those which have raised their basic intelligence significantly by surviving many combats, are certainly aware of a relationship between the threat of death and a kind of wild, surging inner joy mingled with a keen sense of self-awareness and clarity of purpose. The overall increase in actual intelligence in "smart" Kafers facing death is quite small compared with the increase in "stupid" Kafers facing death. The brightest Kafers, those known as *Gnich\**, have their intelligence improved only slightly, if at all, though it is likely they still feel a euphoria, like a drug user's high, when they face death or experience pain. The excitement of the Kafer "Sartre" over the real Sartre's understanding of the Kafer point of view demonstrates this.

It seems likely that Kafers know that danger, pain, or near death brings with it self-awareness and greater intelligence, but that they attribute the fact to "the way things are," or the "natural order of things," rather than to a cause-and-effect relationship between stimulation and the secretion of a hormone in their bloodstreams. Their philosophical viewpoint seems to preclude our ever reasoning with them to accept peace...or to develop, say, an artificial stimulant which will make them intelligent without requiring that they face death. For Kafers, the act of facing death is itself a transcendental experience which might be likened to a dramatic religious experience in a human. Just as no genuinely religious human would deny his God in favor of a pill which would give him the same feeling as the religious experience, no Kafer could conceive of his self-awareness, his feelings of purpose and of destiny, his unfolding consciousness as separate and distinct from the fact of his facing danger and death.

## SUMMARY

Unfortunately, understanding Kafer psychology does not seem to help humans understand how to *handle* Kafers. They are brutish, cruel, and dangerous. Early researchers were excited by the discovery that Kafer behavior is the product of glandular secretions. It cast the Kafers in a different light: they weren't "evil," but were helpless victims of their own body chemistries.

That theory has been dispelled—though one Earth-based foundation holds that peace with the Kafers is possible "now that we truly understand them." Further study and numerous interrogations have revealed that Kafers *enjoy* killing, maiming, and torturing others. In other words, Kafers enjoy being the way they are, and wouldn't change if they could. Understanding *why* Kafers are like they are does not help very much—it only reveals how very dangerous they are.

# Kafer Sociology

This chapter describes various aspects of Kafer life and civilization, loosely grouped under the heading "sociology." It examines Kafer social structures, their government, their history, and their interactions with one another.

## KAFER PREHISTORY

The evolution of Kafers is discussed in the chapter entitled "Kafer Physiology." On their homeworld, millions of years ago, proto-Kafers filled an ecological niche similar to that of jackals on Earth. Both their outward, physical form and the dual nature of their intelligence were evolutionary responses to the environment of their world and to the necessities of their existence as scavengers.

Modern Kafer social structures are derived from the instinctive social structures of those early proto-Kafers. Terran researchers have given the name "troop" to these social units and believe them to have been similar in nature to the troops of baboons or certain other Terran apes. Proto-Kafer troops must have had a definite social structure and organization, including a leader and a hierarchy of rank. Since Kafers are hermaphroditic, there would have been no organization along the line of sex, and all proto-Kafers would have shared troop duties, such as searching for food, guarding the troop, and bearing and nurturing young. However, definite pecking orders established by prowess in combat may have defined each individual's place within the troop.

Kafer social orders were probably all set through combat. A young Kafer might challenge an older Kafer and, if it won, move up in status in the troop. As proto-Kafer dual intelligence developed, experienced (and hence, smarter) Kafers would have an advantage in such social combats, at least until the disadvantages of advancing age outnumbered the advantages of cunning and planning ahead in hand-to-hand combat.

Judging from Kafer attitudes toward combat today, it is likely that there were no ritual restrictions on what could be done in these one-on-one fights. (The notion of a "fair fight" would confuse a Kafer today!) If a Kafer survived enough battles, it might become smart enough to conceive of and apply such "tricks" as using a sharpened bone as a knife or employing a tree limb as a club. Armed Kafers would survive combat after combat and live to what, for creatures as violent as Kafers, would be an old age indeed.

## EARLY HISTORY

There was no clear-cut line between unintelligent proto-Kafers and intelligent, modern Kafers. The development of intelligence within the species was a gradual process which occurred as Serpentine grasslands dried up, as the principal large grazers upon which Kafers depended for food became extinct, and as an increase in Kafer numbers forced separate Kafer troops to compete for food and territory.

The most successful Kafer troops were those with the most successful leaders—those who had survived long enough and become smart enough to develop primitive weapons and battle tactics. The dwindling of the large grazers had several important effects on Kafer social development. Successful Kafer troops became larger, since larger troops could employ greater numbers of scouts to cover much larger areas, increasing the chances of locating a food source; and Kafer troops which employed weapons and battle tactics began applying those tactics towards bringing down wounded, weak, or young animals, extending the food supply, and introducing hunting as an element of Kafer society.

Greater numbers also gave those troops a decided advantage over smaller, competing Kafer troops. In some cases, defeated troops were absorbed by the larger victorious ones, further extending territory and power. During lean years, the losers were eaten. Troop cooperation, conquest, and expansion laid the groundwork for war to become an inherent part of the Kafer mentality.

The concept of "territory," as it would apply to certain Terran animals such as baboons, was established early on. A Kafer troop claimed as its territory whatever expanse of land it could control and protect from rival troops. The larger the troop, the larger the territory it could control,

## A TIMELINE OF KAFER HISTORY

*The following timeline chart is approximate, with no date accurate to within less than 50 years. All dates are A.D., unless otherwise noted.*

**600-650:** *Time of Striker of Stars. The Codes of Violence, and the foundations of modern government in the Juurrrk.*

**700:** *Firearms.*

**800-1000:** *Internal combustion engines, steam engines. Beginnings of Kafer industrial revolution.*

**1200:** *HTA flight.*

**1300:** *Controlled heavier-than-air (HTA) flight.*

**1500:** *Electronics, radio, primitive rockets.*

**1700:** *Primitive spacecraft.*

**1800:** *Fission power, nuclear weapons.*

**1810:** *The first Kafer nuclear war.*

**1820:** *The second Kafer nuclear war.*

**1830:** *Thermonuclear warheads.*

**1840:** *The third Kafer nuclear war.*

**1850:** *Virtual planetary union. The Associative becomes a planetary government.*

**1900-1950:** *Time of World Strider. Destiny-of-Stars. Race-Challenge.*

**1910:** *Kafer discovery of stutterwarp.*

**1950:** *Discovery of the Ylii.*

**1960:** *War with the Ylii begins.*

**2295:** *Encounter with humans at Arcturus.*

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*The term "trade route" is something of a misnomer, since the routes' primary function never had anything to do with trade. Eventually, however, they came to serve much the same purpose as Kafer civilization advanced.*

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giving it a subsequently greater chance of finding food.

Patrolling a large territory meant that the troop was always on the move, travelling along what became set routes which allowed it to survey large areas for signs of dead grazers (food) or rival incursions (enemies and food). Troops which controlled hills or ridge lines providing a clear field of view for great distances became more successful than troops restricted to valleys or lowlands. Regular Kafer patrol routes, especially those running along ridge crests or connecting hilltops, became the forerunners of modern Kafer trade routes.

## TRADE ROUTES AND CITIES

The term "trade route" is something of a misnomer, since the routes' primary function never had anything to do with trade. Eventually, however, they came to serve much the same purpose as Kafer civilization advanced.

Certain places along a troop's patrol route came to be favored as stopping places. Kafers, with their poor night vision, rarely travelled at night, but there were night hunters in Gamma Serpenti-III's grasslands and near-deserts, and Kafer night camps were heavily defended.

Eventually, large and powerful Kafer troops were able to afford the time and individuals to construct permanent fortresses at these sites—first as simple and temporary walls of stone or debris, and later as elaborate fortress towns with high walls and broad ditches enclosing houses of stone and wood. The presence of fortress towns strengthened individual, powerful troops and also served to further nail down the location of traditional paths across a troop's territory.

At first, Kafer towns, or "safe-places" as the Kafer term *Ch\*!!* is generally translated, were only temporarily occupied. As Kafer troops increased in size and territory, however, Kafer leaders powerful enough and intelligent enough to exert dominance over junior Kafers even when they were not present began controlling multiple troops.

The idea of multiple troops was possible only when a single troop was large enough that it included a number of experienced (hence smart) Kafers. The most experienced (and smartest) would be the overall leader. He could exert control over lesser Kafer leaders who were, in their turn, experienced enough (and smart enough) to realize that things worked best if they continued to acknowledge the troop leader as leader, even when it was not personally present.

The result was a major advance in Kafer social development. A troop leader could establish a headquarters in some central safe-place. Large numbers of troops loyal to it could forage across an enormous territory looking for food and dealing with enemies. Where originally scouts would bring back word of prey so that the troop could travel to the site and eat it on the spot, now Kafer troops dismembered carcasses where they found them and carried the pieces back to a central location. Methods of preserving meat (salt from the drying sea and salt lakes, nitrates and other natural chemical preservatives) were discovered which allowed food to be stored in large quantities at select safe-places.

Weapon technology advanced as well. One safe-place might be established on a rock outcropping where copper was easily obtainable, and Kafers were trained to dig and shape the ore, creating a weapons manufacturing center and stockpile at the site. Eventually, two such sites connected by a regularly travelled path might allow the beginnings of trade and of *actual* trade routes. Exchanges of goods between a safe-place on the site of a copper mine and another on the site of a tin mine inevitably (though probably after many thousands of years) led to the discovery of bronze and metallurgy.

Trade routes and safe-places, then, became the foundations of early Kafer civilization.

At first, Kafer cities were an enormous success. The strong Kafer city-state networks expanded to encompass tens or even hundreds of thousands of square kilometers. Where a Kafer troop had begun as a band of 20 or 30 individuals, a typical Kafer city state might include tens of thousands of Kafers. Food gathering became more efficient, and a specialized task assigned to certain well-trained Kafer individuals. Agriculture was discovered, *after* the invention of the city, instead of before as on Earth. Kafer nomad-scavengers had always extended their food supplies, especially during lean times, by gathering and eating certain grasses and the Serpentinean equivalent of fruit. With the rise of the safe-places, Kafers remained in one place long enough to sow, cultivate, and harvest large quantities of grain and fruit. The safe-places provided a site where grain could be stored, together with the preserved meats returned by Kafer foraging parties.

The success of the Kafer city states was their own undoing. Specialization among the Kafers resulted in only a tiny minority actually becoming involved in the tasks of day-to-day survival, as had

not been the case when the entire troop foraged for food. Most city tasks were of a nature which could be learned with relatively little mental ability. A spear-maker might be an old campaigner with enough long-term intelligence to oversee the making of spears, but the individual tasks—shaping or casting copper or bronze spearheads, shaping poles, attaching the heads—could be carried out by unintelligent Kafers trained to perform simple tasks.

Quickly, the overall basic intelligence of the city-dwellers fell. Those Kafers who still foraged outside the city, searching for dead animals to scavenge, hunting, and fighting rival Kafer bands, maintained a high degree of intelligence through their daily battles, but there was always the temptation for seasoned campaigners to retire to the relative comfort and ease of the city, and let younger Kafers take up the challenges of life in the wild. For the warriors of the largest city-states, combat became rare enough that the euphoria of a death struggle was a rare experience, one which could be sacrificed for the joys of city life.

This city lifestyle occurred while the *majority* of Kafers were living, not in cities, but in wild troops of nomad barbarians. Faced with having to fight for food every day, and with constant battles with one another for the carcass of a dead grazer or for the right to use a particular trail, the Kafer barbarians maintained a much higher level of basic intelligence than did their city-dwelling kin.

## THE CYCLE OF CIVILIZATION

The result was inevitable. Sooner or later, a small band of aggressive, smart barbarian nomads would enter the territory of a large city-state. The city-state possessed superior weapons and superior numbers but no longer had either the tactical experience or the overall intelligence to use them. Time after time, armies clashed, and the barbarians triumphed. Barbarian armies would surround the city, scale the walls, and burn the city to the ground.

This conflict created the pattern of Kafer civilization for a period which lasted for at least 15,000 years. A nomad troop would become successful, expand, diversify, and build a city. City life allowed great advances in technology—new industrial processes, new weapons, and new ideas—but the city-dwellers faced fewer challenges than their nomadic relatives and so became less intelligent, on the average. Eventually, a smart barbarian band came along which destroyed the city and the civilization which built it. Civilization and technology gave the city-dwellers temporary advantages, but the overall drop in intelligence had an unavoidable detrimental effect on the city-dwelling Kafers.

Since ideal sites for safe-places were relatively limited, the same sites were frequently chosen again and again, especially if they guarded choice resources or positions such as a rich copper field or a high, strategic hill naturally fortified by cliffs and rock ledges. City sites became well-known terrain features in their own right.

Like certain ancient city sites on Earth, especially in the Middle East, as city after city was built upon the rubble and ruin of the city which preceded it, a vast, imposing *tell*, or city-mound, would rise above the surrounding landscape. Many modern Kafer cities are today located on high, flat-topped mesas, which are, in fact, a stack of 50 or 100 or more cities, one set upon the last in a chain which records the area's history from the modern era of spaceships to the earliest, rubble-walled safe-place of the nomad Kafers of a hundred millennia past. Proper archaeological excavation would reveal a great deal about Kafer history, but whether or not this will ever be carried out is highly problematic.

Cities were not always destroyed completely. In many cases, the conquering barbarians did not utterly destroy the city they took, but they enslaved or killed the occupants and made the city their own. In time, experience (in the form of repeated, failed assaults on walls too strong to breach) taught even the most bloodthirsty barbarians that city walls were valuable resources. What was *not* easily understood was that, for Kafers, the city was a trap. Barbarians would drive away, enslave, or eat the decadent former owners, set up a civilization of their own, and within a few generations become as decadent and stupid as their predecessors—a prime target for the next troop of smart barbarians to enter the region.

In time, the *Aach\*ah*—the smart barbarian—became the archetypal enemy, the ultimate symbol of evil for Kafers, no matter what an individual Kafer's level of technology or intelligence might be. There were always bands more desperate and smarter than one's own, it seemed, and the game of civilization became akin to a planetary king-of-the-hill, with no civilization secure behind its city walls for very long.

## KAFER PERSONAL NAMES

*Kafers have never been named by parents. Methods of Kafer naming in ancient times are not known; doubtless, different customs held in different areas and times.*

*Among the legacies of Striker of Stars, however, was the ritual of Gvach \*, or naming. A Kafer, generally at an early point in its adolescent period, engages in its first Kach \* (fight-for-joy), in a ceremony much like the rite of passage in many primitive Earth cultures. The fight is with weapons, but not usually to the death. It is sufficiently dangerous, however, to give a young Kafer its first taste of the euphoria which accompanies such an experience.*

*During the dazzling (and probably confusing) period of self-awareness which follows, the Kafer initiate is commanded to name itself. The name it chooses, which is drawn from both its juvenile lessons and its adult training to date, is supposed to express the Kafer individual's self-perception, its desires, and its dreams for the future.*

*Names of destiny (Striker of Stars, World Strider) are rare but are considered powerful omens. In fact, they may be indicators of higher-than-average intelligence. Most appear to be random noise, the sounds and inarticulate gargles of a being overwhelmed by sensory overload.*





## STRIKER OF STARS

Approximately 1700 years ago, the Kafer leader known as *Rra Gh'kraach \**—the name translates as "Striker of Stars"—arose as leader of a large and powerful barbarian nomad tribe. Striker of Stars led its people down out of the drying grasslands of its homeland and into the territory of one of the largest of the Gamma Serpentinean city-states. Following the usual form, the smart barbarians triumphed over the stupid city dwellers.

This time, however, the never-ending cycle of civilization was to be broken. It is possible that Striker of Stars was a Kafer genius, as naturally intelligent in its own way as any human genius, or possibly it simply had an unusual charismatic charm and influence over its followers. In any case, Striker of Stars proclaimed the *Ch \*kaar Gurruthr*, usually referred to simply as the *Ch \*kaar*—"Statement of Being" or "Statement of Fact." The statement teaches that violence is the life's blood of the Kafer race, and without violence, Kafers are good only for food or fertilizer.

Striker of Stars established laws, the so-called "Codes of Violence." These established fighting as both an art form and a civic duty, and codified the various types of combat, including *Vakach \** (fight-for-fun, a spectator sport), *Kach \** (fighting for the sheer joy of self-awareness), *Kalaar* (codified, ritual vendetta between individuals), and *Kra'kurruch \** (full-scale genocide for the preservation of the race). Altogether, some 800 different forms of Kafer states of combat are recognized.

One of the most important new codes, that of *Juurrrk*, made assassination of any leader who had grown stupid through soft living and avoidance of the law codes both a civic virtue and a public responsibility. This had the triple virtue of keeping leaders sharp and smart by keeping them combat active and wary (and by killing the ones grown soft), by assuring a steady stream of fresh blood in the city leadership (since the assassins were required to assume the posts vacated by their victims), and by assuring a civic government in which no individual was above the law.

Details of the Kafer government are described elsewhere in this chapter. Basically, however, Striker of Stars invented the idea of the "Associative," basing it on the patterns of his own city-state's success. It allows each of a number of Kafer leaders, the *Gnich \*ah*, or "Suzerains," to rule their own spheres of territory largely independently of one another.

Together with the Codes of Violence, Striker of Stars encouraged such forms of mass entertainment as public hunts of dangerous animals or armed volunteers who participated for the thrill of being pursued; public torture executions of criminals to stimulate the citizen's bloodlust; and *jagh'lach \**, a friendly get-together for the purpose of consciousness-expanding violence.

Striker of Star's civilization was the first Kafer civilization to endure. Codified civic violence kept the average intelligence level of most of the city's citizens as high as that of the barbarians, and with their walls and metal weapons, the city culture's triumph was assured.

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*Approximately 1700 years ago, the Kafer leader known as Rra Gh'kraach \*—the name translates as "Striker of Stars"—arose as leader of a large and powerful barbarian nomad tribe.*

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## THE INDUSTRIAL AGE

Striker of Star's civilization became known by the Kafer leader's name. *Rragh'kraach* \* expanded rapidly to assume control of perhaps half of the city-states of Gamma Serpenti-III and many of the remaining wild barbarian troops.

With an uninterrupted time in which to grow and the average level of intelligence kept at a high level, science and technology grew. Firearms were common a century after Striker of Star's death. Steam engines and petroleum-fueled, internal combustion engines were developed about 1400 years ago, starting the Kafer "Industrial Revolution." The first heavier-than-air craft appeared about 300 years later, and spaceflight about 500 years after that. Scientific progress was slow but steady. Plenty of hostile city-states remained on Gamma Serpenti-III to maintain the pressure of military challenges and the need for new weapons.

One obvious conclusion to be drawn from a comparison of Kafer and human progress is that advances came much more slowly for the Kafers. It should be noted that this does not reflect any inherent superiority of human intelligence over Kafer intelligence, but does reflect its *difference*. Kafer civilization tends to be more conservative than its human counterpart and more dependent on "that's the way things were done in my grandparent's day." Also, discoveries and technical advances were frequently stalled until the chance appearance of a Kafer Newton or Edison with the insight to make an important observation or invention, and move things along from where they had been stranded for a century or two.

Primarily as a means of developing more effective weapons, the Kafer's industrial age led them to conquer the air, and to establish orbital stations and bases on their moons from which rockets could be delivered against the enemy. One irony of Kafer history lies in the fact that, as Striker of Stars' civilization grew more technically advanced, so did the remaining independent Kafer city-states. Within 1000 years of Striker of Star's death, the *Rragh'kraach* \* civilization posed such a deadly threat to other Kafer states that their members, too, were encouraged by frequent conflicts to maintain a high level of basic intelligence, to discover new weapons and battle tactics, and to enact laws such as the Codes of Violence to keep themselves strong. The last independent barbarian tribe probably vanished in the 12th or 13th century (Terran dating).

## THE MODERN AGE

Interestingly, though Kafer spacecraft were in orbit at least as early as 1700 (Terran dating), nuclear power seems not to have been discovered until a century later. The 50 years after *that* is a vague and confused time which Kafer history does not record with any clarity. It appears that there were at least three nuclear wars fought between the remaining city states. What is known is that the original culture, *Rragh'kraach* \*, the city-state of Striker of Stars, emerged as the premier power on the planet sometime around 1 850. The modern Kafer Associative dates from that time. Most of the remaining Kafer city-state leaders were induced to embrace *juurrrk* and to join the *Rragh'kraach* \* Associative, not as conquered territories, but as *Kaffach* \*. Those states that did not join were destroyed by the others, ending uncounted thousands of years of war.

Damage to the planet was severe but not total. Kafer reliance on the concept of safe-places meant that most warheads had been targeted against widely dispersed cities, limiting radioactivity and destruction to relatively small areas rather than vast expanses of the planetary surface. The concept of *vahshrrrgh* took on new meaning: love-of-race might demand, on occasion, that even the consciousness-expanding brilliance of racial *kach* \* be set aside for survival of the race. *Ch \*ahch* \* might bring a transcendental meaning of existence to the Kafer race...but the joy of discovery would be short-lived if none survived to remember.

Ironically, victory brought a new and deadly peril to Kafer civilization: The Kafer species had reached the point where it had run out of natural enemies which challenged the race. After millennia of struggle and war, it was possible that peace might wipe away every gain the race had made within a few generations. It was theorized that a racial lapse into universal stupidity might, eventually, result in a kind of fiery rebirth, since the collapse of civilization was certain to result in the re-emergence of wandering barbarian hordes, of warfare and slaughter, and the law of the survival of the violent. Many, in fact, looked forward to the coming fall, and called attempts to fend off the inevitable collapse as unnatural or immoral.

It was within this period of time after the founding of the Kafer world state that the second great figure in Kafer history appeared: World Strider.

## SELF-UNDERSTANDING

*One of the most able of-  
ficers of the Kafer Leader,  
Triumphant Destiny, was  
Yogh'ghch\* (Self-Under-  
standing). Self-Understand-  
ing possessed an unusually  
quick and agile mind for a  
Kafer, and may have been  
one of those rare Kafer in-  
dividuals born with an innate  
genius, one which gave it as  
clear and as sharp a mind as  
an average human. This,  
coupled with its native,  
greater-than-human mem-  
ory, made it a genius even by  
human terms.*

*It was one of the first  
Kafers to acquire a human  
language—French—which it  
learned after extensive ques-  
tioning of humans captured  
at Arcturus, and with the help  
of special translation pro-  
grams written by its Ylii  
slaves. Self-Understanding,  
after much effort, even  
managed to learn to read  
French—a far more difficult  
task than learning to speak it  
because it required learning  
an entirely new method of  
symbology.*

*Self-Understanding had re-  
ported progress in learning  
to understand the human  
enemy by reading certain  
works of human literature. In  
particular, it reported that the  
humans, in some ways at  
least, did seem to share cer-  
tain basic Kafer values and  
concepts.*

*Unfortunately, all contact  
with the Arcturean station,  
and with Self-Understand-  
ing's troop, was lost before  
greater understanding could  
be achieved.*

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*Early Kafer stutterwarp was woefully inefficient, with warp efficiencies of .005 or less. Improvement in the design eventually allowed warp efficiencies of .01, but further improvements were impossible. The reason lay in the weakness of Kafer computer technology.*

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## WORLD STRIDER

The Kafer who called itself World Strider appears to have been an administrator within the Associative apparatus. Claiming to be a *Kch \*k* (the word is uncertain, but may best be translated as "disciple," without any religious connotations) of the great Striker of Stars, World Strider voiced the second great proclamation of the race, the *Ch \*kaar Kavaluchk*, Statement of Destiny.

*Ch \*kaar Kavaluchk* established the manifest destiny of the Kafer race. Kafers, it declared, survived only through the supreme challenge of *Ch \*ah*, the transcendent moment of supreme self-awareness at the point of death. Since the very structure of nature declared the survival or the extinction of a species by its ability to face and overcome challenges, it was the responsibility of the Kafers to meet this new challenge of peace and overcome it.

Kafers, World Strider maintained, could relapse into racial stupidity once more with no challenges left to conquer, but there would be no victory there since, in a sense, the old enemy, the smart barbarian, would have emerged triumphant once more. Kafer civilization had to maintain itself against the smart barbarian or it would prove the barbarian its superior and doom itself to a deserved extinction. There was one alternative. Space travel had been developed as an adjunct to planetary warfare centuries before. Indeed, most of the nuclear destruction of the previous century had been wrought by nuclear missiles fired from bases on the planet's moon.

Perhaps space travel could lead them to other worlds, where new challenges would present themselves for the betterment of the race. It was to be *Grrruch \**, a struggle for racial self-awareness. In facing those challenges, the race would triumph and survive, or falter and die.

In either case, the adventure would be the supreme *Kach \**, an ultimate *Ch \*ah* for the entire Kafer race, and the chance for the entire species to advance in its own blossoming, euphoric self-awareness.

World Strider's revolutionary ideas had not been plucked from thin air. Kafer explorers had visited other worlds of the Gamma Serpenti system, and they had encountered a diverse and alien ecosystem on the next planet out from their sun—a world far colder than Cruel Nurturer, but less violent and in many ways an ideal target for Kafer settlement and colonization.

At nearly the same time, Kafer physicists discovered the stutterwarp principal, opening the way to the stars. For beings as contentious as Kafers, this was a godsend. The nearest star to Gamma Serpenti was a G-class sun five and a half light years away. At normal interplanetary travel speeds, that target was many centuries away. Even given travel at an appreciable fraction of the speed of light, Kafer society was such that it was most unlikely that even elite, high-intelligence Kafer veterans could endure the many years of travel necessary for reaching it.

## KAFER STARFLIGHT

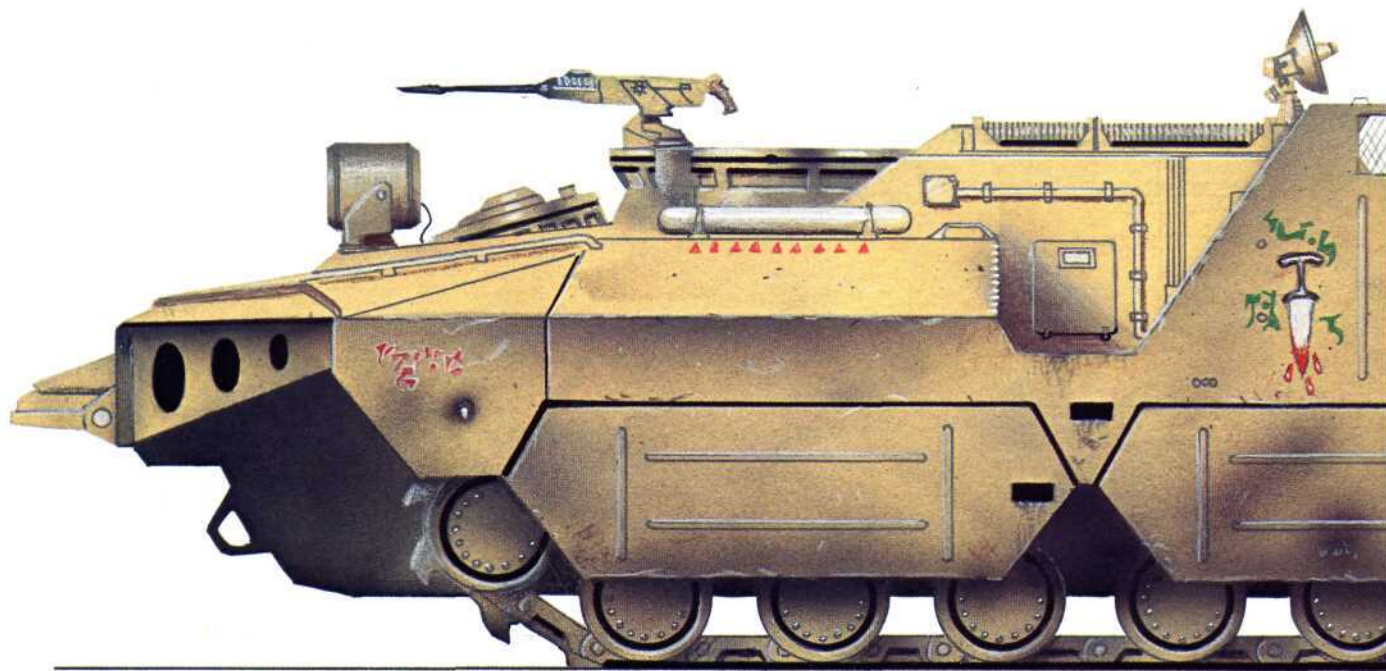
As it was, stutterwarp gave them the stars. Early Kafer stutterwarp was woefully inefficient, with warp efficiencies of .005 or less. Improvement in the design eventually allowed warp efficiencies of .01, but further improvements were impossible. The reason lay in the weakness of Kafer computer technology.

Any stutterwarp requires a high level of computer technology to run, adjust, calibrate, and maintain the drive. Human reactions are too slow to control or anticipate shifts or anomalies in the drive fields, and far too slow to make the necessary nanosecond-to-nanosecond calculations necessary to establish each microjump's position and quantum state. When it is realized that a stutterwarp with a drive efficiency of 1.0 is travelling at a rate of something like 100 meters every nanosecond, that each nanosecond's travel requires calculations of field strength, density, gravitational moment and vector, and position to establish the ship's quantum reality, the need for fast and accurate computational power becomes obvious.

Truly efficient stutterwarp drives require electronic monitoring systems and system-dedicated computer control capable of trillions of individual calculations per second. The single weakness of Kafer systems was not so much the hardware—Kafer computers were bulky and clumsy but could have handled the task—but in the programming. Kafer programming techniques had lagged behind the development of the necessary hardware by a century or more.

Kafer stutterwarp theory was sound, but Kafer computer programming was not up to the task.

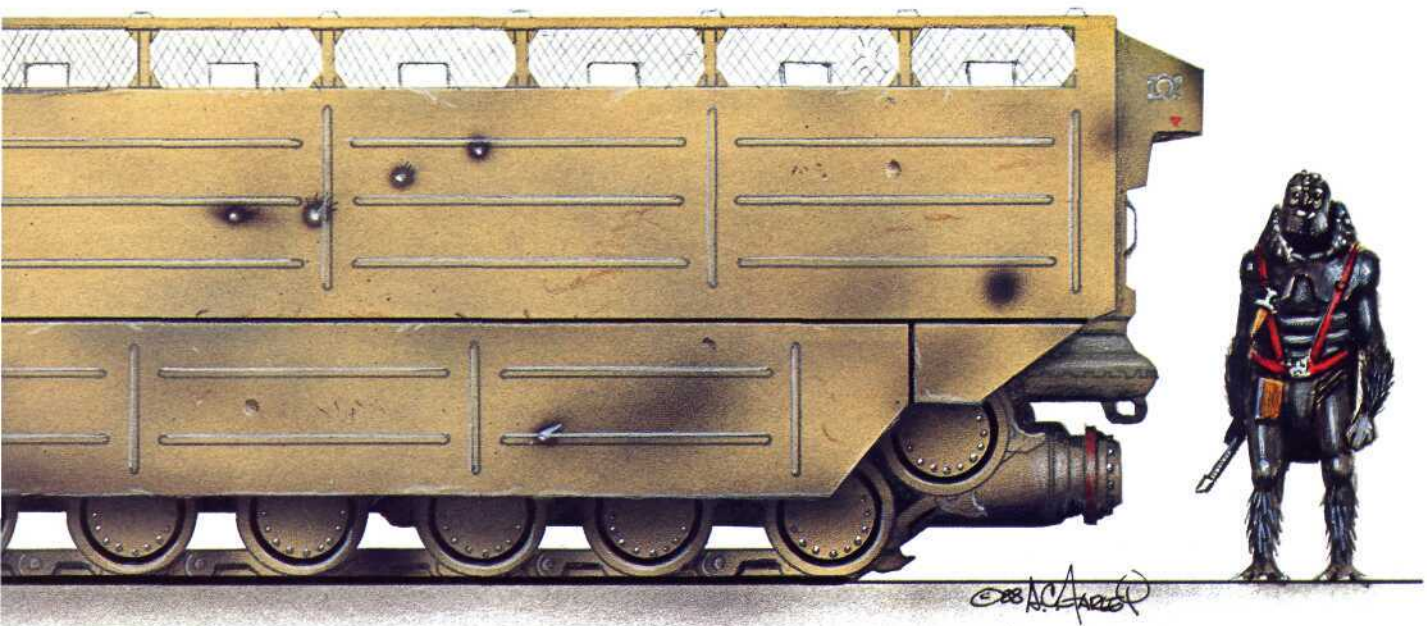
Early explorations among the stars, then, still required long periods of time...more than 550 days to the nearest star, longer to systems more distant. But some 30 years after they began exploring near-Serpentinean space, they encountered Ylii.



# "Bugbus"(Kafer: *Shah ja'ushch*\*)

General-purpose, open-topped, tracked APC. A Kafer "Beamer" or "Tri-beamer" type plasma gun is often fixed to a mounting ring to the left of the driver.

*Type:* Tracked, all-terrain personnel carrier *Crew:* Driver *Weight:* 5100 kg *Armor:* Suspension .8 *All Faces:* 1 *Signature:* 8 *Evasion:* 0 *Sensor Range:* 6 km *Cargo:* 17 passengers and 2500 kg *Max Speed:* 90 kph *Cruising Speed:* 50 kph *Combat Movement:* 180 meters *Off-Road Mobility:* Full *Power Plant:* Hydrogen fuel cell, approximately 0.2 MW *Fuel Capacity:* 240 kg *Fuel Consumption:* 8 kg/hr *Endurance:* 30 hours





## Star List—The Kafer Sphere

This list provides basic information for stars within 20 light-years of Gamma Serpenti. Based on Gliese's *Catalog of Nearby Stars*, edition 1969 (with updates by Halliwell and others).

### INFORMATION

This list contains the following:

**Star Name (and Spectral Data):** This list provides a generally accepted name or catalog number for each star. The cataloged spectral type and size of the star is given with the name; because some data for stars are incomplete, this may conflict with the standard data provided in the spectra column. Size is given as a number or Roman numeral; a number indicates less certain data. Kafer names are indicated in italic type for those stars which have them.

**X, Y, and Z Coordinates:** Each star's position is specified in terms of X, Y, and Z axes in units of one light-year.

**Spectra:** Stars are identified by their spectra and size.

**Magnitude:** Known absolute magnitude is provided.

**Identification Number:** Stars are given a unique identification number based on the sequential numbers in Gliese. Gliese numbers are multiplied by 10 (Gliese number 457 is 4570.0 in this catalog). Members of a multiple system (aside from the primary component) are identified by decimal 10ths: .1, .2, etc.

Star Name		X	Y	Z	Spectra	Magn.	No.
DM+15 3364 G6 VII	A	0.9	-43.6	12.4	G6 VII	8	7030.0
DM+16 2658 M3 V	A	-34.5	-25.8	12.1	M3 V	10	5520.0
DM+16 2708 M0 VE	A	-23.9	-22.3	9.5	M0 V	10.1	5690.0
DM+18 2776 M1 V	A	-28.8	-13.9	10.4	M1 V	9.76	5250.0
DM+19 2881 K1 V	A	-26.9	-24.9	12.8	K1 V	5.66	5670.0
DM+19 2881 SB	B	-26.9	-24.9	12.8	M0 V	13	5670.1
DM+24 2733 M1 V	A	-34.9	-27.7	19.6	M1 V	8.84	5480.0
DM+24 2733 M2 V	B	-36.1	-26.1	19.6	M2 V	9.1	5480.1
DM+24 2786 G2 V	A	-31.6	-28.5	19.0	G2 V	5.15	5640.0
DM+24 2786 SB	B	-31.6	-28.5	19.0	M0 V	13	5640.1
DM+25 2874 K7 V	A	-27.2	-28.5	18.4	K7 V	9.32	5790.0
DM+25 3173 M2 V	A	-8.5	-29.7	14.9	M2 V	9.6	6490.0
DM+30 2512 K8 V	A	-29.8	-20.8	20.8	K8 V	8	5460.0
DM+32 2896 G2 V	A	-6.8	-37.1	24.0	G2 V	4.71	6720.0
DM+35 2436 M0 V	A	-25.4	-8.9	19.0	M0 V	9.5	5070.0
DM+35 2436 M3 V	B	-25.4	-8.9	19.0	M3 V	12.1	5070.1
DM+36 2393 M2 VE	A	-23.5	-10.4	18.5	M2 V	9.1	5190.0
DM+38 3095 K2 V	A	0.9	-27.5	21.7	K2 V	6.24	7060.0
DM+39 2947 G8 V	A	-15.4	-27.6	25.7	G8 V	6.18	6110.0
DM+41 2695 M0 VP	A	-15.9	-33.7	32.4	M0 V	8.1	6190.0
DM+43 2796 M3 V	A	-1.8	-23.0	21.7	M3 V	10.6	6940.0
DM+45 2247 M0 V	A	-20.3	-20.1	29.1	M0 V	8.6	5720.0
DM+45 2688 M0 V	A	2.1	-33.1	33.7	M0 V	9.3	7090.0
DM+47 2112 M3 VE	A	-24.3	-14.1	29.5	M3 V	9.5	5370.0
DM+47 2112 M3 VE	B	-24.3	-14.1	29.5	M3 V	9.6	5370.1
DM+47 612 M1.5 VE	A	17.3	12.0	23.1	M1 V	9.5	960.0
DM+50 2030 M0 VP	A	-25.4	-13.2	34.3	M0 V	8.3	5320.0
DM+51 2402 K6 VE	A	4.0	-28.2	36.0	K6 V	7.9	7190.0
DM+51 2402 SB	B	4.0	-28.2	36.0	M0 V	13	7190.1
DM+67 935 M0 VE	A	-6.2	-12.7	33.7	M0 V	8.37	6170.0
DM+67 935 M3 V	B	-6.2	-12.7	33.8	M3 V	10.47	6170.1
DM+67 1014 K0 V	A	-2.6	-16.6	40.1	K0 V	5.81	6750.0
DM+67 1014 SB	B	-2.6	-16.6	40.1	M0 V	13	6750.1
DM- 1 2892 M0 V	A	-30.8	-17.6	-1.5	M0 V	9.6	5360.0
DM- 1 3220 K0 E	A	-13.2	-33.3	-1.4	K0 V	5.56	6310.0
DM- 3 4233 M2 V	A	0.2	-23.6	-1.3	M2 V	10.08	7010.0
DM- 4 4225 K5 V	A	-8.9	-34.6	-3.2	K5 V	7.53	6530.0
DM- 6 4663 M2 V	A	-2.3	-42.1	-4.5	M2 V	9.5	6960.0
DM- 6 4663 SB	B	-2.3	-42.1	-4.5	M0 V	13	6960.1
DM- 7 4003 M5 V	A	-13.8	-16.0	-2.8	M5 V	11.5	5810.0
DM- 8 4352 M4.5 V	B	-5.8	-19.2	-3.0	M4 V	10.8	6440.1
DM-11 3759 M4 V	A	-15.8	-12.3	-4.4	M4 V	12.38	5550.0
DM-20 4125 K5 VE	A	-12.3	-11.7	-6.6	K5 V	7.06	5700.0
DM-21 3781 K6 V	A	-33.8	-17.1	-15.2	K6 V	7.67	5290.0
DM-21 4352 K5 VII	A	-18.5	-40.6	-17.9	K5 VII	9.5	6220.0
DM-23 11940 K5 V	A	-32.9	-29.9	-19.9	K5 V	7	5650.0
DM-24 12677 M2 V	A	-17.9	-38.4	-19.4	M2 V	9.6	6200.0
DM-26 12026 K1 VE	A	-3.3	-15.6	-8.0	K1 V	6.38	6630.0
DM-26 12026 K1 VE	B	-3.3	-15.6	-8.0	K1 V	6.41	6630.1
DM-26 12036 K5 VE	C	-3.3	-15.6	-7.9	K5 V	7.66	6640.0
DM-34 11626 K3 V	A	-3.7	-18.8	-13.4	K3 V	7.03	6670.0
DM-34 11626 K5 V	B	-3.7	-18.8	-13.4	K5 V	7.9	6670.1
DM-34 11626 M2 V	C	-3.7	-18.8	-13.4	M2 V	10.89	6670.2
DM-37 10500 A VIIS	B	-19.8	-29.3	-27.4	A0 VII	12.1	5990.1
DM-37 10500 G6 V	A	-19.8	-29.3	-27.4	G6 V	5.34	5990.0
DM-37 10765 M4 VI	A	-8.7	-17.8	-15.2	M4 VI	11.2	6180.0
DM-37 10765 M7 V	B	-8.7	-17.8	-15.2	M7 V	16.6	6180.1
DM-39 10940	B	-10.6	-36.7	-31.5	M0 VI	9.5	6460.1
DM-39 10940 K5 V	A	-10.6	-36.7	-31.5	K5 V	7.6	6460.0
DM-40 9712 M4	A	-8.9	-11.5	-12.7	M4 VI	11.2	5880.0
DM-43 12343 K7 VE	A	1.2	-32.4	-30.8	K7 V	7.71	7070.0
DM-46 11370 G8 V	A	-3.4	-16.8	-18.1	G8 V	6.12	6660.0
DM-46 11370 M0 V	B	-3.4	-16.8	-18.1	M0 V	9.28	6660.1
DM-48 11837 M0 V	A	-3.3	-25.8	-29.5	M0 V	10.1	6800.0
DM-51 10924 M0 V	A	-3.5	-23.6	-30.1	M0 V	10.1	6760.0
DM-57 6303 K0 V	A	-12.4	-23.6	-41.7	K0 V	6.64	6150.0
HC+3 1919 NoIyali'ta'ah M7 V	A	-24.1	-43.8	-3.5	M7 V	16	9603.0

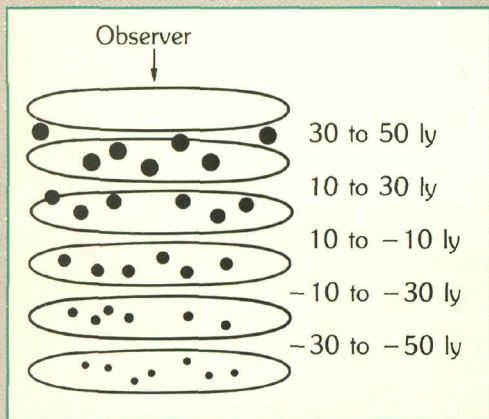
Star Name		X	Y	Z	Spectra	Magn.	No.
26 Draconis G1 V	A	-2.6	-22.8	42.9	G1 V	4.46	6840.0
26 Draconis M0.5 V	B	-2.6	-22.8	42.9	M0 V	7.19	6840.1
44 I Bootis G1 V	A	-18.3	-18.6	28.7	G1 V	4.87	5750.0
44 I Bootis G2 V	B	-18.3	-18.6	28.7	G2 V	5.47	5750.1
44 I Bootis SB G2 V	C	-18.3	-18.6	28.7	G2 V	6	5750.2
AC+18 1890-112 M4 V	A	-20.0	-26.8	10.7	M4 V	11.8	5890.0
AC+41 726-154 M4 V	A	-5.4	-29.2	26.4	M4 VI	11	6710.0
AC+54 1646-56 M2 V	A	-11.2	-25.2	38.4	M2 V	9.6	6250.0
AC+61 26806 M1 VE	A	-2.6	-23.0	42.8	M1 V	9.08	6850.0
AC-12 2306-155 M4 V	A	-30.7	-23.2	-8.3	M4 V	13	5531.0
BK+00 2334 Ch*'ah G2 V	A	-21.2	-37.3	7.1	G2 V	4.7	9600.0
BK+7 5675 Klin'na*'ah K2 V	A	-31.9	-38.4	3.1	K2 V	6.67	9607.0
BK+10 1245 K'lik'nu'ah M1 V	A	-38.6	-37.3	9.2	M1 V	10.4	9610.0
BK+15 3434 Kan'ah'ah M1 VI	A	-38.4	-44.0	3.0	M1 VI	9.8	9615.0
BK+16 9747 Chi No'ah G1 V	A	-31.6	-41.2	-22	G1 V	4.9	9616.0
BK-1 1423 Nak* Anak! M1 V	A	-23.4	-40.6	3.9	M1 V	7.8	9601.0
BK-2 0075 Ka'yali' On'ah M2 VIA	A	-26.5	-41.7	0.1	M2 VI	11.2	9602.0
BK-5 9201 Ho'kan'ah M1 V	A	-19.6	-44.1	-12.8	M1 V	9.7	9605.0
BK-8 0854 Ka'lun Anak'ah M0 V	A	-32.0	-37.5	7.9	M0 V	13	9608.0
Chien 112 Da've'ah F6 V	A	-43.3	-35.8	2.3	F6 V	5.8	9612.0
Chien 414 Mi*'ah F2 V	A	-35.7	-40.5	5.8	F2 V	3.6	9614.0
Chien 820 Ka'lun'ah Ne'pa! M2 V A	A	-32.6	-48.1	3.8	M2 V	9.5	9620.0
DK+17 4521 Da've'i Na'ah M0 VA	A	-6.9	-42.4	8.0	M0 V	13	9617.0
DK+21 6825 Ne'ah Kyali'ah K2 V A	A	-27.6	-48.7	-12.0	K2 V	5.1	9621.0
DK+29 3074 Ka'lun Cal'ah M0 VA	A	-31.5	-51.8	-0.4	M0 V	12.3	9629.0
DK+32 2390 Che'chi Yali'ah M2 VA	A	-18.8	-52.9	-5.0	M2 V	9.6	9632.0
DK-26 2485 Da'ven*'ah G6 V	A	-13.5	-46.2	-17.9	G6 V	5.7	9626.0
DK-33 1023 Cahan Ne'iyal'ah M2 VA	A	-14.2	-50.7	-9.1	M2 V	10.4	9633.0
DM+ 3 3465 K3 V	A	-4.1	-40.0	2.5	K3 V	6.06	6880.0
DM+ 5 3409 M0 V	B	-4.5	-31.5	3.1	M0 V	14	6781.1
DM+ 5 3409 M1 V	A	-4.5	-31.5	3.1	M1 V	9.36	6781.0
DM+11 2576 M1 V	A	-22.7	-9.2	4.5	M1 V	9.65	5140.0
DM+11 2576 SB	B	-22.7	-9.2	4.5	M0 V	13	5140.1
DM+13 2901 G6 V	A	-30.7	-32.5	10.6	G6 V	4.6	5791.0



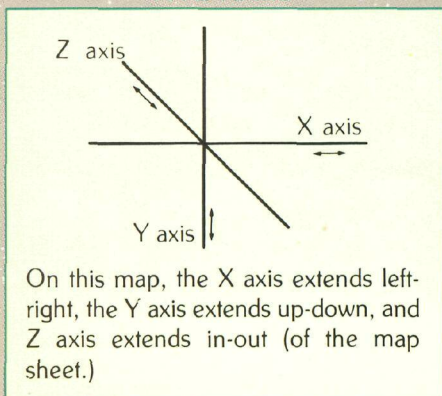
# 2300AD™

## THE KAFER SPHERE

### SENSING THE Z AXIS



### XYZ AXES

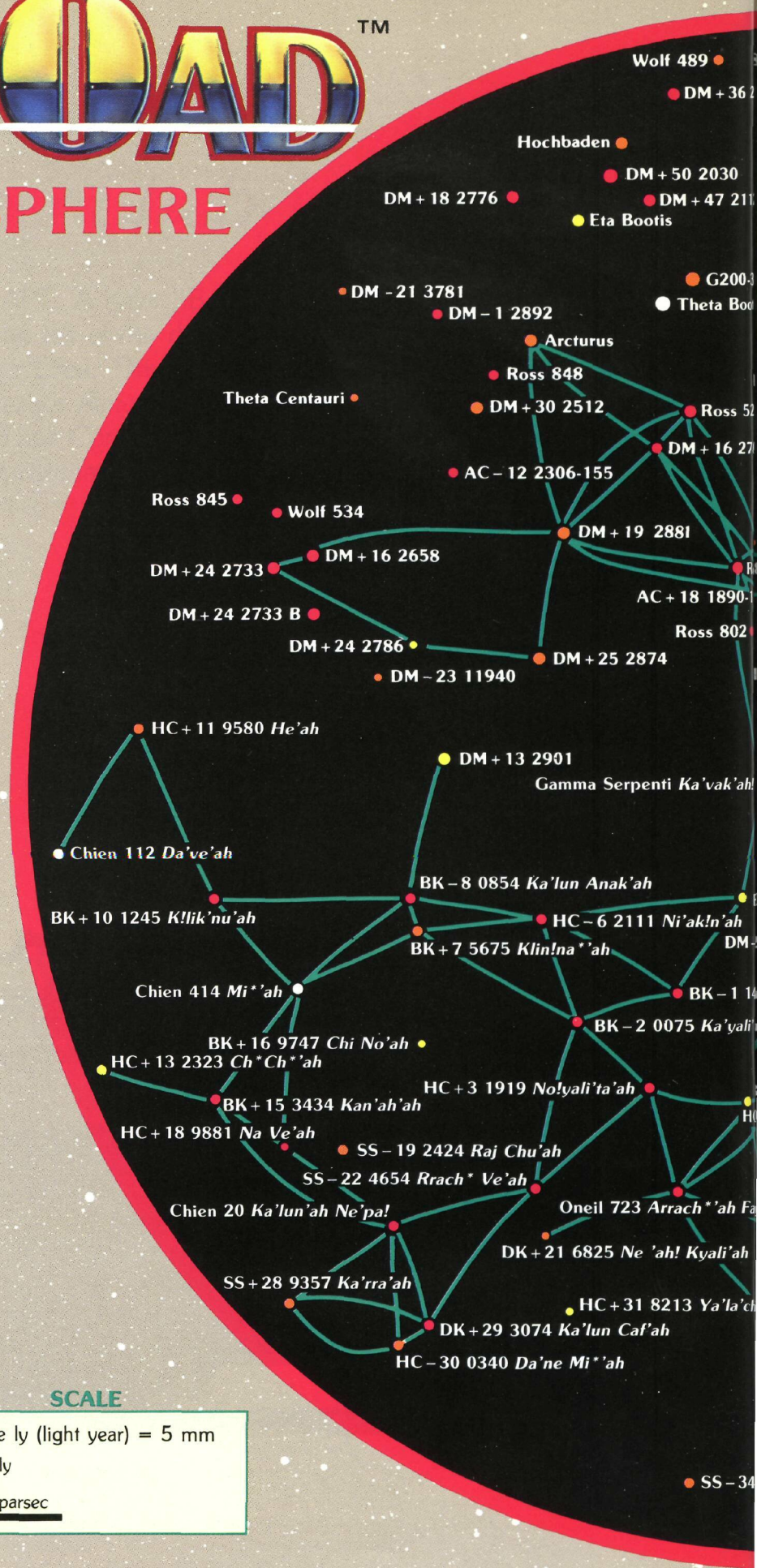


### SCALE

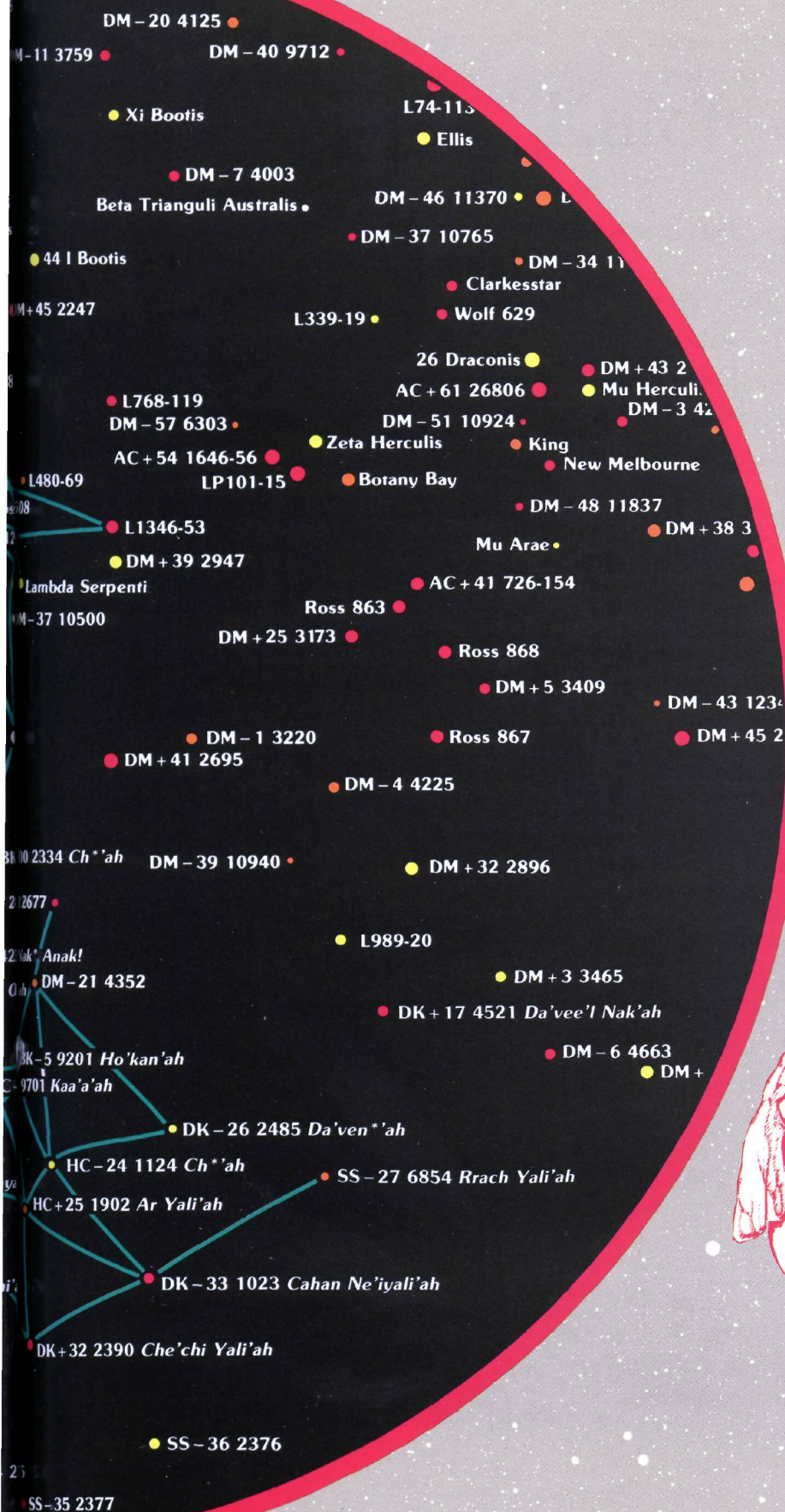
one ly (light year) = 5 mm

one ly

one parsec







## MORE INFORMATION

Additional data for each star is provided in the accompanying Near Star List. Information provided includes spectral type, size, magnitude, XYZ coordinates, and distance from earth.

## STELLAR SPECTRAL TYPES

Type	Color	Temperature °K
● A	Blue	7500° to 11,000°
○ F	White	6000° to 7500°
● G	Yellow	5000° to 6000°
● K	Orange	3500° to 5000°
● M	Red	less than 3500°

## Z AXIS DISTANCE

- 30 to 50 ly
- 10 to 30 ly
- -10 to 10 ly
- -30 to -20 ly
- -50 to -30 ly

Z axis distance is the value above or below the map plane. Symbols represent perspective distance, not stellar size.





Star Name	X	Y	Z	Spectra	Magn.	No.
HC+11 9580 <i>He'ah</i> K1 V	A	-40.8	-31.9	8.4	K1 V	6.1 9611.0
HC+13 232 A <i>Ch*Ch*ah</i> G2 V	A	-42.1	-43.0	-3.4	G2 V	4.65 9613.0
HC+13 232 B <i>Ch*Ch*ve'ah</i> K3 VB	A	-42.1	-43.0	-3.4	K3 V	6.67 9613.1
HC+18 9881 <i>Na Ve'ah</i> M0 V	A	-36.1	-45.7	10.1	M0 V	8.4 9618.0
HC+25 1902 <i>Ar Yali'ah</i> K2 V	A	-19.0	-48.6	-10.3	K2 V	6 9625.0
HC+31 8213 <i>Ya'la'chi'ah</i> G3 V	A	-36.9	-51.3	-14.8	G3 V	5.56 9631.0
HC-4 9701 <i>Kaa'a'ah</i> G2 V	A	-20.8	-44.1	-6.3	G2 V	4.7 9604.0
HC-6 2111 <i>Ni'ak'In'ah</i> M2 VE	A	-27.9	-38.1	4.8	M2 VE	10.5 9606.0
HC-24 1124 <i>Ch*ah</i> F2 V	A	-17.3	-47.1	-15.0	F2 V	3.6 9624.0
HC-30 0340 <i>Da'ne Mi*ah</i> K2 VA	A	-32.3	-52.3	6.3	K2 V	6.5 9630.0
SS+28 9357 <i>Ka'ra'ah</i> K2 V	A	-35.9	-51.0	-0.3	K2 V	6.5 9628.0
SS-19 2424 <i>Raj Chu'ah</i> K0 V	A	-34.2	-45.7	-9.0	K0 V	6.6 9619.0
SS-22 4654 A <i>Rrach*ve'ah</i> M1 V	A	-27.9	-47.1	-0.3	M1 V	10 9622.0
SS-22 4654 B <i>Rrachlve'ah</i> M1 VI	B	-27.9	-47.1	-0.3	M1 VI	9.7 9622.1
SS-27 6854 <i>Rrach Yali'ah</i> K6 V	A	-8.8	-47.7	-11.7	K6 V	8.3 9627.0
SS-34 2375 K3 V	A	-23.0	-56.8	2.0	K3 V	6.2 9634.0
SS-35 2377 M3 V	A	-19.3	-57.8	1.2	M3 V	10.56 9635.0
SS-36 2376 G0 V	A	-14.0	-56.1	4.0	G0 V	4.61 9636.0
Arcturus K2 IIIE	A	-28.0	-18.4	11.7	K2 III	-0.24 5410.0
Beta Trianguli Australis F2 IV	A	-10.1	-15.9	-37.4	F2 IV	2.4 6010.0
Botany Bay K7 V	A	-8.6	-24.7	17.3	K7 V	8.19 6380.0
Clarkesstar M4.5 VE	A	-5.8	-19.2	-3.0	M4 V	10.79 6440.0
Ellis G0 V	A	-6.5	-14.3	17.6	G0 V	10.97 6230.0
Eta Bootis G0 IV	A	-26.8	-14.3	10.2	G0 IV	2.72 5340.0
Eta Bootis SB	B	-26.8	-14.3	10.2	M0 V	13 5340.1
G200-38 K1 VII	C	-23.1	-16.8	38.5	K1 VII	12.7 5490.2
Gamma Serpenti <i>Ka'vak'ah!</i> F6 V	A	-20.3	-33.1	10.9	F6 V	3.4 6030.0
Hochbaden K6 5	A	-24.9	-12.6	14.3	K6 V	7.26 5280.0
King K7 V	A	-4.0	-24.2	0.9	K7 V	8.15 6730.0
L 74-113 M	A	-4.7	-13.4	-45.9	M0 V	12.2 6370.0
L 258-146 K	A	-20.3	-9.6	-30.7	K0 VII	14 5240.0
L 339-19 G	A	-7.7	-20.3	-22.3	G0 VII	14.5 6330.0
L 480-69 K	A	-18.9	-25.3	-24.4	K0 VII	13.4 5900.0
L 768-119 M5	A	-16.0	-22.7	-9.8	M5 V	11.9 5950.0
L 989-20	B	-8.9	-39.3	-1.3	M0 V	11.7 6600.1
L 989-20 G	A	-8.9	-39.3	-1.3	G0 VII	11.5 6600.0
L1346-53 M4 V	A	-15.4	-26.8	11.6	M4 V	14.2 6090.0
Lambda Serpenti G0 V	A	-19.3	-28.6	4.5	G0 V	4.3 5980.0
LP101-15 M4 VE	A	-9.9	-24.9	41.5	M4 V	12 6301.0
LP101-15 SB	B	-9.9	-24.9	41.5	M0 V	13 6301.1
Mu Arae G5 V	A	-2.4	-27.2	-34.7	G5 V	4.9 6910.0
Mu Herculis G5 IV	A	-1.6	-23.3	12.2	G5 IV	3.89 6950.0
Mu Herculis M4 V	C	-1.6	-23.3	12.2	M4 V	11.26 6950.2
Mu Herculis M4 VE	B	-1.6	-23.3	12.2	M4 V	10.8 6950.1
New Melbourne M1 V	A	-2.6	-24.2	8.1	M1 V	10.14 6860.0
Oneil 723 <i>Arrach*ah Fayali</i> M0 V	A	-23.4	-47.2	-7.2	M0 V	5.36 9623.0
Ross 52 M5	B	-22.8	-21.2	13.6	M5 V	12.1 5680.1
Ross 508 M6	A	-21.8	-26.3	10.8	M6 V	14.8 5850.0
Ross 802 M5	A	-20.9	-28.3	-8.8	M5 V	13.6 5920.0
Ross 845 M5.5 5E	A	-37.4	-23.9	-9.3	M5 V	12.8 5402.0
Ross 848 M5	A	-28.9	-19.8	-5.8	M5 V	12.8 5450.0
Ross 863 M3	A	-7.1	-28.9	11.7	M3 V	11.6 6550.0
Ross 867 M5 5E	B	-6.2	-33.0	16.7	M5 V	12.6 6690.1
Ross 868 M4 5E	A	-5.7	-30.6	15.4	M4 V	11.2 6690.0
Theta Bootis F7 V	A	-23.9	-17.3	37.8	F7 V	3.22 5490.0
Theta Bootis M3.5	B	-23.9	-17.3	37.8	M3 VI	10.3 5490.1
Theta Centauri K0 III	A	-33.3	-20.0	-28.3	K0 III	0.9 5390.0
VB 8	C	-5.8	-19.2	-3.0	M0 V	17.69 6440.2
Wolf 489 K 7	A	-22.6	-9.9	1.7	K0 VII	15.36 5180.0
Wolf 534 M4	A	-35.7	-24.3	-5.4	M4 V	13.9 5430.0
Wolf 629 M4 6	A	-5.8	-19.2	-2.9	M4 VI	12.73 6430.0
Wolf 629 SB	B	-5.8	-19.2	-2.9	M0 V	13 6430.1
Xi Bootis G8 VE	A	-15.4	-14.0	7.2	G8 V	5.53 5660.0
Xi Bootis K4 VE	C	-15.4	-14.0	7.2	K4 V	7.69 5660.2
Xi Bootis SB	B	-15.4	-14.0	7.2	M0 V	15.0 5660.1
Zeta Herculis G0 IV	A	-9.2	-25.1	16.4	G0 IV	2.97 6350.0
Zeta Herculis K0 5	B	-9.2	-25.1	16.4	K0 V	5.57 6350.1

## COMPANIONS

Many systems in the *Near Star List* contain binary or multiple stars. This companion list shows each multiple star and indicates the names of all companion stars.

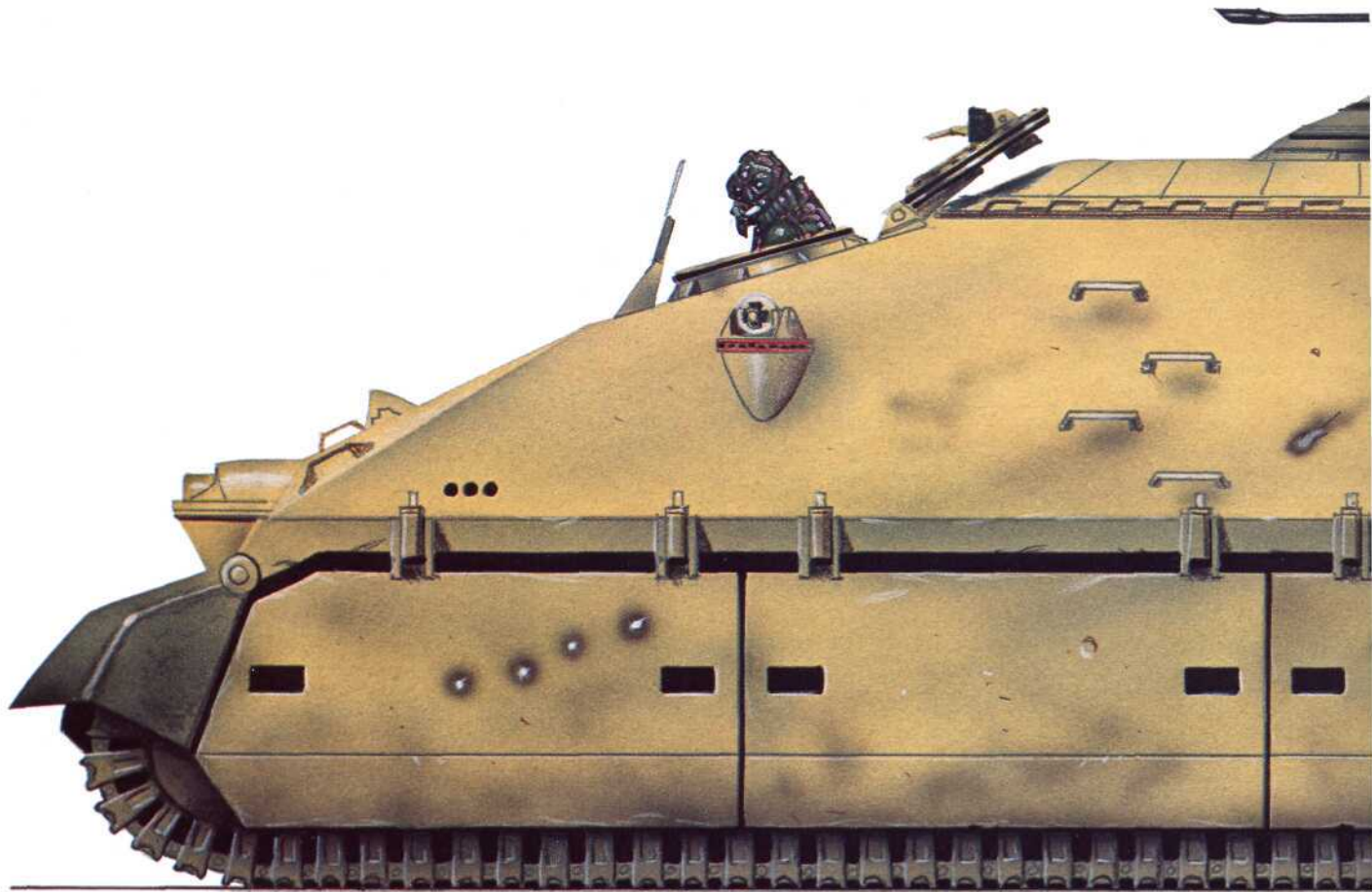
Name: Companions

26 Draconis G1 V A: 26 Draconis B
26 Draconis M0.5 5 B: 26 Draconis A
44 I Bootis G1 5 A: 44 I Bootis B, C
44 I Bootis G2 5 B: 44 I Bootis A, C
44 I Bootis SB G2 5 C: 44 I Bootis A, B
Clarkesstar M4.5 5E A: DM- 8 4352 B, VB 8 C
DM+19 2881 K1 V A: DM+19 2881 B
DM+19 2881 SB B: DM+19 2881 A
DM+24 2733 M1 5 A: DM+24 2733 B
DM+24 2733 M2 5 B: DM+24 2733 A
DM+24 2786 G2 5 A: DM+24 2786 B
DM+24 2786 SB B: DM+24 2786 A
DM+35 2436 M0 5 A: DM+35 2436 B
DM+35 2436 M3 B: DM+35 2436 A
DM+47 2112 M3 5E A: DM+47 2112 B
DM+47 2112 M3 5E B: DM+47 2112 A
DM+51 2402 K6 VE A: DM+51 2402 B
DM+51 2402 SB B: DM+51 2402 A
DM+67 1014 K0 V A: DM+67 1014 B
DM+67 1014 SB B: DM+67 1014 A
DM+67 552 M1 5 A: DM+67 552 B, DM-22 2345 C
DM+67 552 SB B: DM+67 552 A, DM-22 2345 C
DM+67 935 M0 VE. A: DM+67 935 B
DM+67 935 M3 5 B: DM+67 935 A
DM-6 4663 M2 5 A: DM- 6 4663 B
DM-6 4663 SB B: DM- 6 4663 A
DM-26 12026 K1 VE A: DM-26 12026 B, DM-26 12036 C
DM-26 12026 K1 VE B: DM-26 12026 A, DM-26 12036 C
DM-26 12036 K5 VE C: DM-26 12026 A, B
DM-34 11626 K3 V A: DM-34 11626 B, C
DM-34 11626 K5 V B: DM-34 11626 A, C
DM-34 11626 M2 C: DM-34 11626 A, B
DM-37 10500 A 7S B: DM-37 10500 A
DM-37 10500 G6 V A: DM-37 10500 B
DM-37 10765 M4 A: DM-37 10765 B
DM-37 10765 M7 B: DM-37 10765 A
DM-39 10940 B: DM-39 10940 A
DM-39 10940 K5 V A: DM-39 10940 B
DM-46 11370 G8 V A: DM-46 11370 B
DM-46 11370 M0 V B: DM-46 11370 A
Eta Bootis G0 IV A: Eta Bootis B
Eta Bootis SB B: Eta Bootis A
G200-38 K1 C: Theta Bootis A, B
HC+13 232 A: HC+13 232 B
L 989-20 B: L 989-20 A
L 989-20 G A: L 989-20 B
LP101-15 M4 5E A: LP101-15 B, LP101-16 C
LP101-15 SB B: LP101-15 A, LP101-16 C
LP101-16 7 C: LP101-15 A, B
Mu Herculis G5 IV A: Mu Herculis B, C
Mu Herculis M4 5 C: Mu Herculis A, B
Mu Herculis M4 5E B: Mu Herculis A, C
SS-22 4654 A: SS-22 4654 B
Theta Bootis F7 V A: Theta Bootis B, G200-38 C
Theta Bootis M3.5 B: Theta Bootis A, G200-38 C
VB 8 C: Clarkesstar A, DM- 8 4352 B
Wolf 629 M4 6 A: Wolf 629 B
Wolf 629 SB B: Wolf 629 A
Xi Bootis G8 VE A: Xi Bootis B, C
Xi Bootis K4 VE C: Xi Bootis A, B
Xi Bootis SB B: Xi Bootis A, C
Zeta Herculis G0 IV A: Zeta Herculis B
Zeta Herculis K0 5 B: Zeta Herculis A

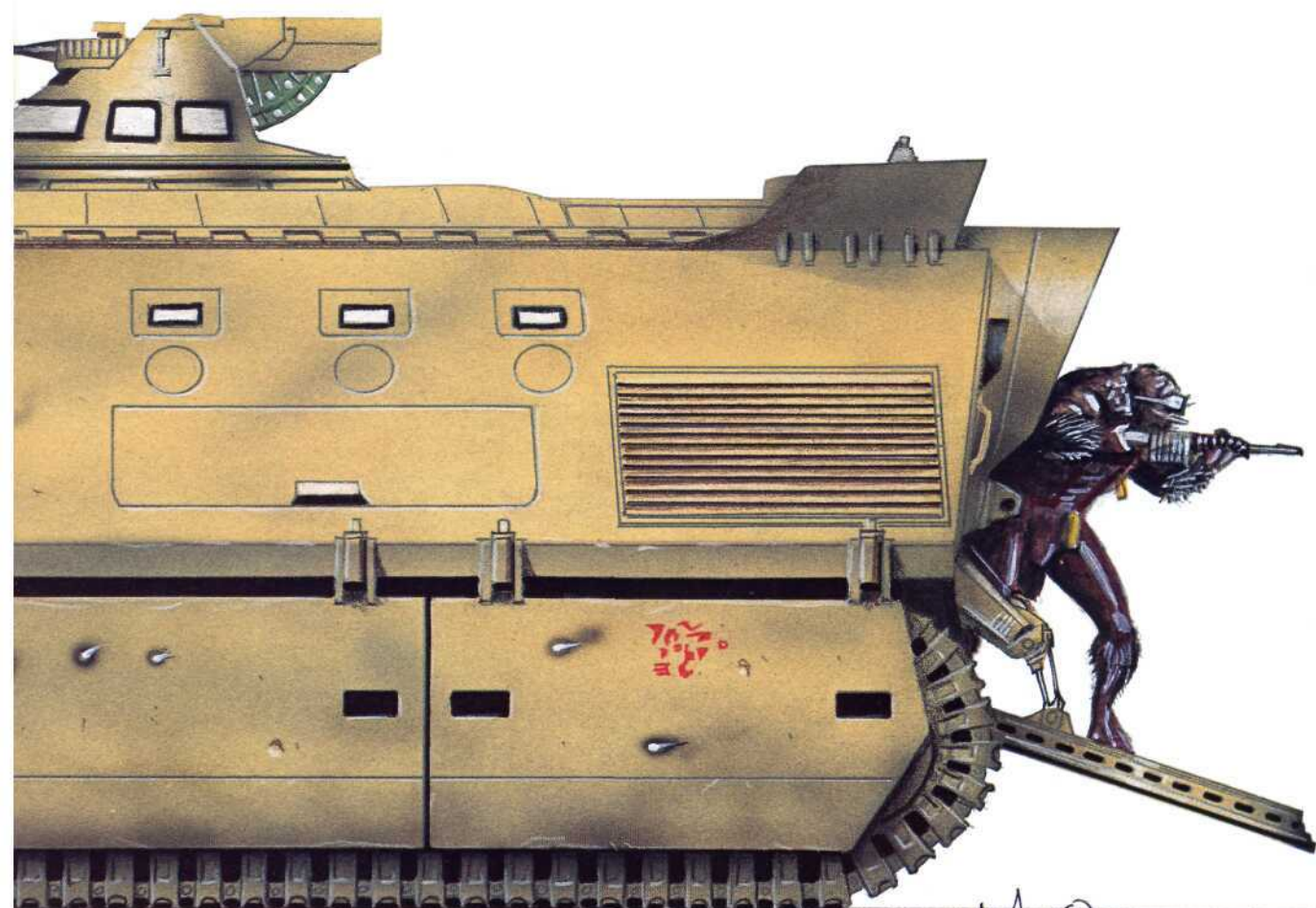
# "Crawler"(Kafer: *Shah shuch*\*)

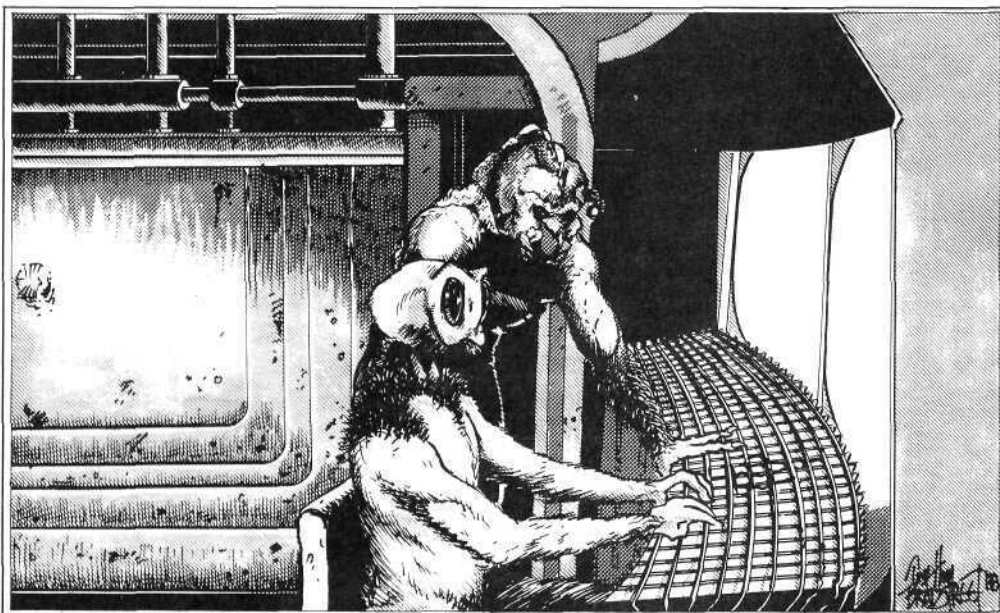
General-purpose, fully enclosed, tracked APC, often equipped with a turret-mounted "Beamer" or "Tri-beamer" plasma gun.

Type: Tracked, all-terrain personnel carrier Crew: Driver Weight: 4500 kg Armor: Suspension: .8 All Faces: 1.1 Signature: 8 Evasion: 0 Sensor Range: 6 km Cargo: 10 passengers and 2000 kg Max Speed: 80 kph Cruising Speed: 40 kph Combat Movement: 160 meters Off-Road Mobility: Full Power Plant: Hydrogen fuel cell, approximately 0.2 MW Fuel Capacity: 204 kg Fuel Consumption: 6 kg/hr Endurance: 34 hours









## THE YLII

This non-human, non-Kafer civilization is discussed later in this Sourcebook. In brief, the Ylii were a highly advanced species which had had star travel for many centuries, but who lacked the drive for long-range exploration or colonization. Early Kafer explorers discovered signs of an abandoned Ylii colony on the world of a red dwarf 10 light-years from Gamma Serpenti.

Actual contact with the Ylii was made at the K2 system the Kafers called *Vakah* (Strange One). After an initial period of attempts to establish communication, the Kafers attacked savagely.

Disappointingly, the Ylii were not skillful fighters, and the war provided little in the way of challenge for the Kafer race or stimulation for the Kafer soldiers who fought for it. After subduing *Vakah* (exterminating perhaps 90 percent of the Ylii there), the Kafers continued their expansion.

Another Ylii world was discovered, and the Kafers braced for war. Strangely, the Ylii did not attack but asked for peace, trade, brotherhood! Many of these concepts were literally unintelligible to the Kafers who met the Ylii representatives. Using the sophisticated translation programs of their linguistic computers, the Ylii eventually managed to get across the idea that the Ylii and the Kafers could share the universe in a state of not-war. It was a strange idea.

Nor could it last. Though the Ylii seemed determined not to give the Kafers a pretext for further war, the Kafers, for their part, did not really need one. After perhaps 50 years of intermittent contact, the Kafers attacked and conquered the second Ylii world. Then a third. And then a fourth.

After three centuries, the Kafers have conquered six Ylii worlds or outposts. Each conquest has been followed by a period of cautious, uncertain, and (to the Kafers) puzzling not-war. Between each conquest, the Kafers have cautiously explored in other directions. One factor which significantly hampered the Kafer conquest was the fact that various Kafer factions tended to fight with one another, which was certainly more exhilarating than fighting the Ylii.

At least two more Ylii worlds are known but have not yet been taken. In point of fact, the single largest obstacle in the way of total Kafer conquest of the Ylii has been the aliens' lack of resistance. From the Kafer point of view, there is literally no point in pursuing the war, and each attempt to mount a major campaign tended to dissolve into war between factions.

That obstacle may be nearly removed now, however, for two very different reasons. First, Ylii resistance appears to be toughening. Guerrilla resistances have broken out on the occupied Ylii worlds, providing all sorts of stimulation for the garrisons there. The Kafers have little understanding of alien biology, and do not understand why some Ylii, at least, may be changing.

Second, and more importantly, the war with the humans has been accelerating rapidly since contact was first made. It is perceived throughout the Associative that the Ylii War *must* be brought to a successful conclusion to free additional ships and to acquire additional Ylii slaves.

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*Neither interstellar exploration nor the on-again, off-again hostilities with the Ylii had done more than postpone the crisis in Kafer history. In the centuries since World Strider, the Kafer Associative had become fragmented.*

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## THE IMPORTANCE OF THE YLII

Ylii spacecraft were not equipped as warships, and there were no space battles between the two species. The Kafers quickly noted, however, that Ylii ships were capable of incredible stutterwarp efficiencies. By comparing the records of Kafer observers at two occupied systems, it was possible to determine that a typical Ylii ship was capable of travelling fully 80 times better than the best Kafer drive. Examination of captured ships proved that the Ylii drive design, while smaller and more elegant than Kafer models, still worked on the same principle. The difference appeared to lie in the Ylii computers or, more specifically, the speed and power of the drive monitoring computer programs.

There was danger here and a new surge of Kafer interest in conquest of the aliens. It was soon found, however, that the Ylii were malleable to Kafer designs. Ylii slaves would willingly develop programs as sophisticated as their own for Kafer drive computers; they would even volunteer ways of improving Kafer drive efficiency on their own. The Kafers did not understand this behavior, but they tolerated it. More, they used it to their own ends. Numerous expeditions were outfitted for missions to the Ylii worlds, not for conquest, but to raid those worlds for slaves. For a time, every Kafer ship carried on board a contingent of Ylii slaves. Later, slaves were carried only on board the largest, most important ships, but all Kafer vessels showed the benefits of having had Ylii alterations to both hardware and programming.

By the time the Kafers encountered humans at Arcturus in 2295, their stutterwarp efficiency was fully as good as human technology in most cases, and better in some. The Kafer Beta-class battleship, for example, has a warp efficiency of 2.8, while the Golf-class fighter can manage an efficiency of better than 3.6.

## TRIUMPHANT DESTINY AND THE HUMAN WAR

Neither interstellar exploration nor the on-again, off-again hostilities with the Ylii had done more than postpone the crisis in Kafer history. In the centuries since World Strider, the Kafer Associative had become fragmented.

This was because Kafer leadership structure is inherently unstable, due primarily to the fact that only exceptional Kafer individuals have the charisma or intellect to maintain control over millions or billions of other Kafers, even through a hierarchy of always-intelligent *Gnich* \*.

The fragmentation in the Associative was not outward. None of the ruling *Gnich* \* withdrew from the Associative (though several threatened to do so), and an all-out war among the Kafers was probably averted, at least temporarily, by the deepening war with the Ylii.

One of the senior Kafer *Gnich* \*, with the ominous name of Triumphant Destiny, was the Associative Suzerain at Klanik, an outpost at the star humans know as DM + 19 2881. It was one of Triumphant Destiny's ships which encountered a human research outpost at Arcturus in 2295. Though little was learned about this new spacefaring species in the first encounter, Triumphant Destiny saw in the humans an opportunity for itself. The humans at Arcturus appeared peaceful and unwarlike, but their technology revealed inherent differences between them and the Ylii.

Perhaps the humans would make worthwhile opponents!

Even more, the threat of war with the humans might well offer Triumphant Destiny a chance to win power (the Kafer word is identical to their word for "destiny") over all of Kafer space.

Triumphant Destiny attempted to convince the Associative that an all-out attack on the new species was in the interests of the Kafer race. The Ylii had failed to offer the challenge the Kafers needed to survive as a strong culture, but perhaps the new species would be more accommodating.

Its attempt failed. *Ch \*gh'ng* (an as yet untranslatable name), the current Over-Suzerain of the Kafer Associative, mistrusted Triumphant Destiny...possibly because it had a name with meaning, and alarming meaning at that. Help was refused.

Acting on its own, Triumphant Destiny attacked the research station at Arcturus, killed most of the occupants, and took a number of prisoners. From them, with the help of Ylii translation computers, Triumphant Destiny's officers learned French, and learned too that the next human outpost world lay only a few light-years farther on, at the double star system of Eta Bootis.

Again, Triumphant Destiny attempted to rally support among the other Kafer suzerains for a war against the humans. Again it was rebuffed. It assembled its entire fleet and most of its military ground forces and, still on its own, attacked Eta Bootis.



The attack had cost Triumphant Destiny most of its ships and all of the ground forces committed to the invasion, but the assault had proven to be a victory for the Kafer leader. The tactical defeat in human space had proven the nature of the human threat to the suzerains within their webs of alliances and maneuverings inside the Associative. Four of the other seven suzerains had sided with Triumphant Destiny against *Ch \*gh'ng*. The Kafers had to unite with all of their forces against the human threat.

All agreed the humans represented a severe challenge to the Kafer species. Though in many ways incomprehensible—one group of humans had attacked the Kafers aboard the Arcturean station while armed only with a piece of white cloth attached to a broken antenna—they seemed worthy adversaries. Tough, combative, and (most especially) *clever*, the humans represented the archetypal enemy of the race, *Aach \*ah*, the smart barbarian.

Triumphant Destiny's armada was reinforced by additional ships and troops from the major Kafer base at Lambda Serpenti. With the loss of Triumphant Destiny's fleet, the Associative was forced to ally more closely than ever. It was assumed the humans would soon probe the Arcturus System, then advance deeper into Kafer territory. There were three possible routes from Eta Bootis and Arcturus towards the Kafer worlds, through DM + 19 2881, DM + 16 2708, or Ross 52, all class M red dwarfs lying approximately six light-years from Arcturus. (Note: The Kafer names for the various star systems they have visited or colonized are listed in the chapter entitled "Kafer Language.")

Triumphant Destiny gathered what was left of its forces at DM + 19 2881. He dispatched one of its ablest and brightest officers, *Yogh'ghch \** (Self-Understanding) to command a detachment at the captured Arcturean station. The other systems offering possible routes into Kafer territory from Arcturus were covered by the forces of the other Kafer suzerains, and thus not under direct control.

## ON TO VICTORY

The expected human onslaught did not come, though Triumphant Destiny had been certain that a major human thrust was underway when its ablest officer, Self-Understanding, was killed in a human attack at the captured Arcturus orbital facility. With the Kafer Associative firmly united in its pursuit of *Kra'kurruch \** against the humans, victory, racial self-awareness, and racial survival all appear assured. To date, the war has shown complete success in the face of satisfyingly savage and stimulating enemy (human) resistance—everything the Kafer suzerains could possibly want.

And the outlook for humanity is bleak.

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*The tactical defeat in human space had proven the nature of the human threat to the suzerains within their webs of alliances and maneuverings inside the Associative.*

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# The Kafer Government

## CONCEPTS

The following concepts have been chosen to illustrate Kafer thinking about what government is and how it is organized.

A pronunciation key and a short glossary are provided at the beginning of the chapter entitled "Kafer Language."

Ch\*kaar Kavaluchk: *Proclamation of Destiny*. The proclamation by World Strider which held that Kafer destiny was to be found in a testing among the stars. Kafers would conquer the universe and come to an awareness of self, or they would fail and become extinct. The concept is a dual, either/or statement which allows for no other possibility.

Gnich\*ah: *Suzerains*. The word is obviously related to gnich\* (Planners). It can apply to any Kafer planner or authority figure but is correctly applied only to the Suzerains of Power (or Destiny).

Gnich \*luchk'!ah: *The Suzerains of Power (or of Destiny)*. One of the nine individual Kafers who oversee their own domains, and who make up the Kafer Association's senior leadership.

(Continued.)

This chapter describes the means by which Kafers govern themselves and their domain, and briefly discusses some of the implications.

## HISTORY OF GOVERNMENT

The formation of a workable government has been one of the greatest practical challenges of the Kafer species. Most individuals at most times are too stupid to care—or even realize—that there is a government, but the combative and fractious nature of the Kafer is such that any command by an authority representing itself as the government is likely to be resisted with some vehemence.

Kafers fight one another for almost any excuse...and even without excuse in the case of "social" or "grooming" combat. Certainly, the concept of government gives even the smartest Kafer more than enough reason to fight!

In ancient times, "government," in the sense of one or more individual Kafers exercising authority over an entire troop, or later, a city-state and its environs, was centered around one or several Kafers who were more experienced—hence smarter—than the rest. A smart, experienced Kafer knew how best to guide, argue, or trick the members of its troop into a desired course of action. When it was challenged, its greater intelligence gave it an edge in combat, and each such challenge served to make it more experienced and smarter, securing its power.

The system became unwieldy with the rise of the early Kafer city states, but it still worked well enough. The principal weakness of the city states was in the drastic loss of overall mental abilities, a loss which affected all of the city state's members from the leader down. Time after time, a city state would rise, achieve advances in learning and culture, become soft, decadent, and stupid, and fall before the onslaught of a barbarian troop which was far smarter and more cunning than the city dwellers, due to the rigors of life in the wild.

As was explained in the section on Kafer history, the revered historical figure known as Striker of Stars laid the foundations for modern Kafer government. Its introduction of codes, rituals, and ways of doing things transformed Kafer life and experience, breaking the bloody and unending cycle of civilization.

Striker of Stars established the principal of *juurrrk*. If Kafer leaders were to be fit to lead, they had to be able to maintain a high level of intelligence and cunning. This was fostered by the idea that ordinary Kafers had the right—and the responsibility—to attack and kill any Kafer leaders no longer smart enough to avoid such attacks. The result was a very nearly democratic form of government... at least as Kafers understood the term.

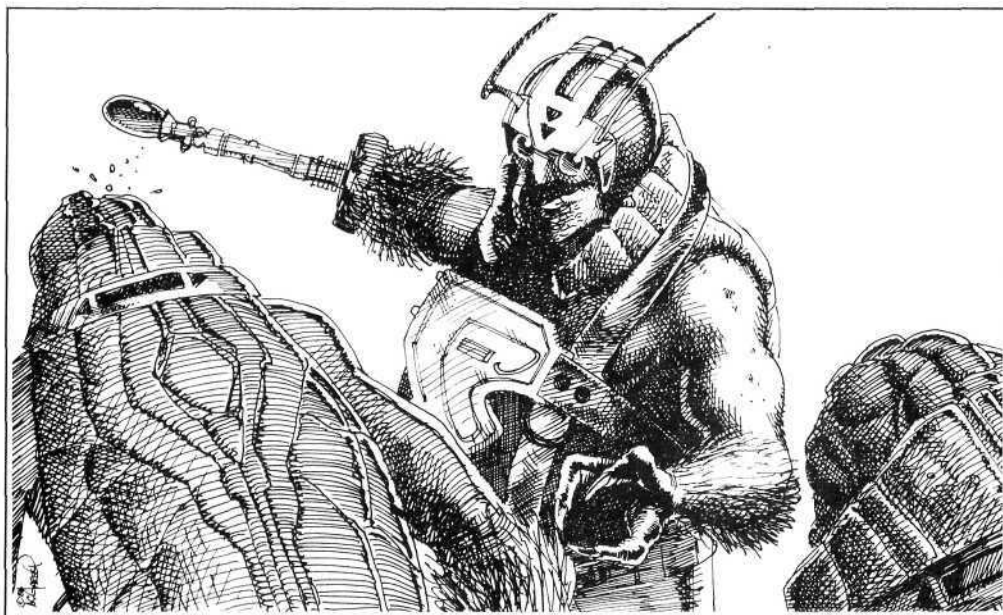
It also established the position of *Gnich \*luchk'!ah*, or Suzerain.

## SUZERAINS

The *Gnich \*ah*, or suzerain, was the leader of a troop (later on, a city) and occupied an interesting position in Kafer sociology. The suzerain generally was deeply respected by the other Kafers of the troop because it was experienced, and because it had survived. The concept "he's a real survivor" would be instantly appreciated by any Kafer which understood the phrase.

At the same time, the suzerain was generally the smartest Kafer in the troop, and this posed problems. While the troop was willing to follow a Kafer leader which proved itself by finding food or defeating rivals, in the days of the city state, the idea of intelligence became blended with stories and memories of barbarians—smart barbarians—which inevitably appeared to tear down civilization and destroy all that the city's culture had achieved. No modern Kafer fully trusts any individual which proves to be smarter than itself.

Kafer leaders, then, do not occupy altogether comfortable positions in Kafer society. Each of the nine suzerains, the *Gnich \*luchk'!ah*, control a large segment of the population. At this point in time, each maintains its own capital on a different one of the Kafer worlds. The most powerful and respected of the *Gnich \*luchk'!ah* is the *Gnich \*luchk'!*, or Over-Suzerain. It controls its own domain from the Kafer homeworld of Gamma Serpenti-III.



Each suzerain is, in theory, independent of the others. (The definition of the term "suzerain" is rooted in a medieval term which suggests fealty to a lord by an otherwise independent ruler.) Each maintains its own autonomous domain, collects its own taxes, and maintains its own fleets and armies. In most cases, each will even fight its own wars; the long war against the Ylii has been pursued primarily by two of the nine suzerains, with little or no assistance from the others.

Occasionally, disputes among the nine are settled through a kind of parliamentary outgrowth of *Jagh'lach* \*called *lach\*nye*. In its simplest form, the meet is a personal combat, not *usually* to the death, but one sufficiently threatening to increase the self-awareness of all participants. With intelligence sufficiently raised among the members, problems can usually be worked out, and compromises agreed upon. Severe disagreements in policy or philosophy are usually deferred to the over-suzerain, or to the most senior and respected suzerain present, who will settle the matter in favor of *turggh!gr*, the principle of love-of-race.

Sometimes not all agree what is best for the race, and recalcitrant members of the discussion may challenge the outcome. Usually such challenges result in death for one or another of the leaders involved.

In practice, Kafers do not always resort to parliamentary procedure to resolve disputes. There have been numerous wars between Kafer leaders throughout their history, including during the centuries since they've entered space. The war against the Ylii was interrupted many times by the outbreak of war between the two suzerains fighting the Ylii, apparently because they enjoyed fighting one another more than the uncooperative aliens. Various of the suzerains have threatened to break away from the others, and in practice, each is almost completely independent of the others. Alliances among the suzerains are constantly shifting, and challenges to death-fights are common.

Each suzerain has its own governmental infrastructure under its command. This is generally composed of *Chok'aav*, the word denotes a Kafer with long experience and could be thought of as the Kafer equivalent of an NCO—which themselves control other, lesser ministers. Kafer government can be thought of as a hierarchy with the most experienced and smartest Kafers at the apex of a social pyramid, and the more numerous, less experienced, less respected, and more stupid Kafers toward the bottom.

It is dangerous to think of the Kafer hierarchy in such absolutes, however. Kafer intelligence is not the same as human intelligence, and Kafers do not think the same way humans do. There are Kafer *chok'av* (probably in the majority) which do not hold any position of authority higher than the equivalent of a human army corporal, and there are Kafers in high levels of government which, while capable of intelligence when stimulated, have basic intelligence levels which would

Gnich\*luchk'!:(Roughly) Over-Suzerain. Kafer thinking does not grant supreme power to any one Kafer, but the senior and most powerful of the nine suzerains has the most authority and respect within the Associative and could be considered the leader.

Gurruthr: Violence is the life's blood of the race. Philosophical concept, codified by Striker of Stars, that violence is necessary for continuance of the Kafer race.

Lach\*nye: Associative. The word has various connotations but means an assembly for various purposes. Note relationship to *Jagh'lach\**, a friendly social get-together for mob violence and self-awareness.

Juurrrk: Rightful or required purge. A philosophical concept, first advanced by Striker of Stars, that it is the responsibility of any Kafer, for the good of the race, to assassinate any leader which has become too stupid through soft and unstimulated living to outwit such attempts.

Vah: Literally, "the race," or, possibly, "the people." The Kafers name for themselves.

compare to a human IQ of no more than 50 or 60. An important difference between Kafers and humans is the fact that Kafers do not think in terms as *high* or *low* when describing the authority or power of an individual Kafer. A Kafer at a "high level of government" is no more (or less) important than the equivalent of a corporal, or a common laborer, though it is probably more respected for its ability to survive.

## GOVERNMENT AND SOCIETY

On the whole, Kafer government seems to work. The actions of government are frequently violent, but the violence serves to keep the leaders on their toes and intelligent, and the insight and intelligence they achieve while discussing government policy allows decisions to be made with the good of the race at heart.

The governed tend to mistrust their leaders, but the distrust is tempered by respect for those who have survived long enough to reach such a position. The governed are encouraged to attack leaders when they see weakness, an action which is itself possible only when members of the governed classes are intelligent enough to conceive of and plan such an act.

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*Kafer officers appear to rely on their experience to instill respect among the soldiers under their command. The fact that an officer or Chok'aav has survived many combats appears to be understood by even the stupidest Kafer soldier. Respected senior Kafers may be challenged and attacked, but the attacks are nearly always social in nature and are rarely to the death.*

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*// should be noted ... that Kafers do not distinguish at all between civilian and military aspects of their lives or cultures.*

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Where the system tends to break down is when cooperation between individuals with sharply differing goals or philosophies is enforced. Enforcement of a leader's dictates has always been shaky once government grew larger than the leadership of a single large troop. This problem is generally overcome by ignoring it. Few long-term or large-purpose goals are set for the race as a whole, exceptions being truly exceptional "proclamations" by respected Kafer leaders, such as the *Ch \*kaar Kavaluchk* of World Strider. In most cases, individual leaders are largely autonomous, and subleaders under them are autonomous in their own right, with each Kafer bearing to its leader a kind of fealty similar to that enjoined on nobles in Medieval Europe on Earth. A *Gnich \*ah* receives from its underlings a "tax" in goods, workers, and produce, and the promise of support in war. In principle, the nine *Gnich \*luchk'ah* together represent the destiny of the race; in fact, each is autonomous, though a measure of deference is given to the senior of the nine, the over-suzerain of the homeworld.

The situation with the war against humans has changed matters somewhat. The actions of the Kafer suzerain called Triumphant Destiny have forced a closer union within the Associative, and an expansion of the war against Earth which will pit the entire Kafer race against humanity.

Much depends on how well the Kafer lords can cooperate with one another during the coming campaigns.

## MILITARY LEADERSHIP AND DISCIPLINE

It should be noted once again that Kafers do not distinguish at all between civilian and military aspects of their lives or cultures. Kafers are assigned duties before their period of adolescence and may be transferred by their leaders among several different positions. Soldiers are neither more respected nor distinguished from factory workers, starship pilots, or teachers of the young. In this sense, the Kafers seem to have achieved naturally the classless society once proposed by communists, democrats, and advocates of other discredited human philosophies. The single criterion which might be viewed as a class distinction among Kafers is their combined experience (meaning repeated survivals of combat experience) and intelligence (which is raised by combat.)



Experience/intelligence is a double-edged value system for Kafers, who respect experience while mistrusting intelligence.

A curious problem is presented by Kafers in military formations. Do the soldiers ever get smart enough in combat to mutiny—in effect, to kill their officers and operate the army along "democratic" principles?

The answer is not fully understood since that understanding would require a closer understanding of Kafer ways of thinking, more than humans are ever likely to possess. Basically, the answer seems to depend upon several important points of Kafer psychology.

- Kafer officers appear to rely on their experience to instill respect among the soldiers under their command. The fact that an officer or *Chok'aav* has survived many combats appears to be understood by even the stupidest Kafer soldier. Respected senior Kafers may be challenged and attacked, but the attacks are nearly always social in nature and are rarely to the death.

- Kafer soldiers appear to understand the need for discipline almost on an instinctive level. indeed, the concept of "discipline," as humans think of it, may be alien to them. Kafer soldiers certainly do not drill for the purpose of acquiring discipline as do their Terran counterparts. "Stupid" Kafers appear to shamle in loose formation, paying little heed to their surroundings. "Smart" Kafers become superb tacticians and fighters with a seemingly innate talent for coordinating with other Kafers in their unit.

In any case, stupid Kafers which challenge an officer quickly become smart enough to accept a command or a judgment as *vahshrrrh'k*—necessary for the good for the race.

- Despite all of this, mutinies appear to be an accepted part of Kafer military life. This is a natural consequence of *juurrrk*, since there is, in practice, no difference between a Kafer military officer and a Kafer ruler, save in the level of power it wields.

The most frequent cause of mutinies seems to be long-term garrison duties at a boring outpost somewhere where it is safe. Over a period of time, social combat does not provide the stimulation necessary to maintain intelligence. With loss of intelligence comes the one thing which seems to arouse in Kafers something analogous to fear—the idea that they are becoming so stupid that the *Aach \*ah*, the smart barbarians, are going to kill them.

Kafer officers in this position may arrange mass combats between sections of the Kafers under their command to keep the survivors challenged and happy. There have been reports of Kafer detachments killing their officers, taking a ship, and going elsewhere on their own in search of combat and danger. It appears that this is a rare occurrence, however, since respect for seniors and concern for the good of the race are generally strong enough to overcome other emotions.

At least for a time.

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# Kafer Language

## PRONUNCIATION

The Kafer words reproduced in this Sourcebook are based on the SOL-C 68000 series computer translation studies funded by the North American Research League, based on data obtained by the Station Arcture Rescue Mission earlier that year. Since they are transliterations of a language with an "alphabet" totally unlike most Terran forms, the letters and letter groups which spell various Kafer words are intended to approximately reproduce certain basic sounds, the "vowels" and "consonants" of the language, though these English terms have little meaning in Kafer speech studies.

In fact, many Kafer sounds bear little resemblance to any sounds expressed by any human languages. The following pronunciation key, while incomplete, describes the pronunciation of some of the more important sounds.

a: Always short, as in father.

e: Short, as in "eh," or a neutral sound like the English schwa.

o: Always long, as in choke.

u: Always long, as in June.

ch: As in cheer.

The Kafer language is an expression of their alienness from human experience. For some time, it was assumed by human researchers that the Kafers possessed an extremely simple, brutish language. To human ears, the words are harsh, sharp, and disjointed, reminding most humans more of grunts, barks, or random gargling noises than of a coherent speech.

Translation of the basics of Kafer speech, however, has demonstrated that the nature of the language is, in fact, a reflection of their mental processes. This chapter gives a brief and partial introduction to Kafer language (at least to the only one which has come to light so far). It ignores grammar and glyph-formation, which are not well understood in any case, but explains pronunciation and gives a brief vocabulary.

## VOCABULARY

The following list gives Kafer words and phrases which have been established with at least a 90 percent probability. The source is the SOL-C 68000 linguistic program analysis of interrogations performed at *L'Institute de la Sorbonne Extraterrestre de La Cite d'Aurore*.

**Aach\*ah:** Literally "one who thinks well," but apparently applied only to the archetypical enemy of the Kafer race—the smart barbarian. In modern times, any non-Kafer which exhibits intelligence at a higher level than the Kafers is thought of as *Aach \*ah*, the smart barbarian.

**Arrach\*:** "Enlightened self-awareness through struggle." The moment when a Kafer faces death and experiences the transcendent moment of self-awareness and exultation.

**Arrach\*\*ah:** "Enlightened one." An individual brought to self-awareness by struggle. Also the name of a Kafer world, captured from the Ylii.

**Chok'aav:** (Untranslatable.) The word may be a Kafer slang expression meaning approximately "comrade" or "fellow." It refers to experienced Kafers serving at intermediate levels between *Gnich \** (officers) and ordinary soldiers. The human equivalent might be an experienced sergeant or other NCO. Probably related to *Chok'an* and *Chok'ah*.

**Chok'ah:** Literally "Surviving One," or "One Who Survives." This could be construed as a title of high praise in *Gah*.

**Chok'an:** "Cunning; Crafty," literally "able to survive."

**Ch\*ah:** Literally "one's death struggle," applied to an ultimate face-to-face encounter with death which brings enlightenment. (Not to be confused with *Ch \*ah*, which refers to a place of struggle.)

**Ch\*ahch\*:** "Facing death together"; achieving joy and destiny through struggle.

**Ch\*ch\*:** "Deadly." Also, possibly, "exciting" or "stimulating."

**Ch\*!!:** "Safe-place," literally "not a place of combat." The Kafer word for "city," or "town," or even "dwelling," first applied to early walled settlements along nomadic routes. It may also mean something approximating "boring."

**Ch\*kaar Kavaluchk:** Proclamation of Destiny. The proclamation by World Strider which held that Kafer destiny was to be found in a testing among the stars. Kafers would conquer the universe and come to an awareness of self, or they would fail and become extinct. The concept is a dual, either/or statement which allows for no other possibility.

**Gah:** "The speech." The Kafer word for their own language. Whether this refers to one among many Kafer dialects or languages, or to the concept of speech in general, is at present unknown.

**Gnakshik!:** Literally "meat being." The meaning of this term was obscure for a long time. It appears to be the word Kafers translated into German as *fleischwessen*, or "meat being." It is believed now that the term refers to unintelligent animals used by the Kafers as food. To call someone a *Gnakshik!* would be equivalent to a human calling someone a "stupid cow," i.e., brainless and harmless.

**Gnich\*:** Literally "combat survivors" or "experienced." Seems to signify "thinkers" or "planners," and refers to those members of Kafer society with basic intelligence levels well above the common level due to repeated combat or near-death experiences. The term could be used to signify the Kafer equivalent of officers.



The symbols below were taken from the wreckage of Kafer spacecraft on Aurore, and translated through the assistance of the Extraterrestrial Institute of the Sorbonne, at La Cite d'Aurore.

KEEP OUT



WARNING/CAUTION



ENLIGHTENED/OFFICERS/  
PLANNERS ONLY



ON (alive)



OFF (dead)



(UNTRANSLATABLE)  
FORBIDDEN BEYOND  
THIS POINT



*ah*: An "a" sound, but drowned out, ending in a sigh very much like a human sigh of satisfaction. It usually signifies "one" or "thing" in the Kafer language.

*ch*\*: A harsh, rasping noise pronounced like the German "ch" in *Nacht* or *Bach*. "Ch\*" is a common sound related to the Kafer concept for struggle or combat, and frequently serves as a vowel in Kafer words.

*gh*: Pronounced as an intermediate sound between hard and soft "g."

*gn*: Stressed, nasal "n" as in *nyet*.

*sh*: Pronounced as "sh" in *shield*, but somewhat harsher and sharper, almost becoming a "ch" or "gh" sound.

*th*: Voiced "th" as in *then* (not as in *thought*).

! : A "click," similar to sounds in *Xhosa* and other Terran "click speech" languages. It is imitated by making a clucking noise with the tongue at the back of the mouth, as in the "giddyup" noise made while riding a horse.

**Gnich\*ah**: Suzerains. The word is obviously related to *gnich*\*, or "planners," and could be translated "one who has survived" (but, compare with *chok'ah*). It can apply to any Kafer Planner or authority figure, but is correctly applied only to the Suzerains of Power (or Destiny).

**Gnich\*luchk'lah**: The Suzerains of Power (or Destiny). One of the nine individual Kafers who oversee their own domains, and who make up the Kafer Associative's senior leadership.

**Gnich\*luchk'!**: (Roughly) Over-Suzerain. Kafer thinking does not grant supreme power to any one Kafer, but the senior and most powerful of the nine suzerains has the most authority and respect within the Associative and could be considered its leader.

**Grach**\*: Literally "Struggle to enlightenment." The "naming ritual" which serves as a kind of coming of age ceremony for young Kafers. They engage in combat which brings them face to face with death and, in the moment of enlightenment which follows, they choose the name by which they will be known as an adult. Note relationship to *Arrach* \*ah, "Enlightened One."

**Grrruch**\*: Racial self-awareness. A philosophical concept which holds that it is possible for the entire Kafer race, through struggle against the universe, to become self-aware in a new and

\*: Found alone, without the "ch," "" is an inspirant pronounced by inhaling sharply, like a "sh" sound made by inhaling rather than exhaling.

': A glottal stop, indicating, not a sound, but a pause where the preceding sound is cut off short and far back in the throat before the next sound is pronounced.

**Multiple letters:** Where some Terran languages (such as Mandarin) rely on variations in tone and pitch to modify or give meaning to words, Kafer speech relies on meter. Certain sounds are drawn out, with a slight emphasis given to each "beat." Thus, in *kalaar* (vendetta), the diphthong (two vowels appearing together) is given the "a" as in father sound, but it is held longer.

"Rr" and "rrr" are rolled or trilled "r" sounds, with the triple letter held longer than the double, "r" often serves as a vowel in Kafer speech.

**Accent:** Kafer speech is unaccented, and a word with several syllables gives equal stress to each syllable.

Certain sounds do not appear to be present in Kafer speech, possibly because the Kafers are unable to manufacture them. These include the vowel sounds of long "a" (as in pay), long "e" (as in meet), and long "i" (as in time); and the consonants b, f, m, n, p, s, and z.

deeper way, attaining enlightenment.

**Gurruthr:** Violence is the life's blood of the race. Philosophical concept, codified by Striker of Stars, that violence is necessary for continuance of the Kafer race.

**Jagh'lach\*:** a friendly, social get-together for mob violence and self-awareness.

**Juurrrk:** (Untranslatable.) A philosophical concept, first advanced by Striker of Stars, that it is the responsibility of any Kafer, for the good of the race, to assassinate any leader which has become too stupid through soft and unstimulated living to outwit such attempts.

Kaa'a: "Heights" (Compare: *Kaa'a'ah*, Mountainous One).

**Kach\*:** Literally "Fight-for-joy." A battle enjoined for the purposes of mental euphoria and for self-awareness.

**Kalaar:** Blood feud or vendetta. Combat for purposes of vengeance, generally surrounded by precise rituals and proclamations which must be observed.

**Kaffach\* (or Kachach\*):** Comrades-in-struggle. A term referring to "brothers" or fellow stragglers in a war or ongoing fight.

**Kavach\*!:** Seat or place of power/destiny. The Kafer term for a "regional capital," where one of the nine suzerains runs its government.

**Kch\*k:** (Untranslatable.) The word seems to mean approximately "disciple" or "devoted student," but has neither religious nor educational overtones.

**Kra'kurruch\*:** (Untranslatable.) The word is applied to genocide, especially genocide carried out under *Vahshrrrg*, or love-of-race. The Kafers have recently united in *Kra'kurruch* \* against Mankind.

**Lach\*:** An arranged meeting for purpose of combat. A duel or testing between two or more Kafers, especially one where the Kafers learn more about one another through enlightenment.

**Lach\*nye:** Associative. The word has several connotations but means an assembly for various purposes. It is applied to Kafer government meetings and refers to their nature, where Kafer leaders fight with one another for social purposes, raise one another's intelligence, then apply themselves to the work of government. Note relationship to *Jagh'lach* \*.

**V'ded:** "Great" or "Supreme."

Vv: "Sky."

**Vv'eh:** Literally "Night." Apparently also applied to the semi-aware state of Kafers at their normal, basic intelligence level, especially approximating an extremely low human IQ at the very edge of self-awareness.

**Vakach\*:** Literally "Fight-own" or "Fight-for-fun." Social combat between Kafers enjoyed by both the participants and by spectators. The human equivalent might be rough-housing, or violent sports such as football or Zero-G wrestling.

**Vahshrrrgh:** "Love-of-the-race"; "for the good of the people"; the one concept to which Kafers will defer during a confrontation with other Kafers, assuming all parties are intelligent enough to understand the idea.

**Vahshrrrgh\*k:** Anything necessary for the good of the race, such as survival.

Vah: Literally "The Race," or possibly "The People." The Kafer name for themselves.

**Yogh'ghch\*:** Literally "Self-understanding." A philosophical concept indicating awareness of self through facing death or violence. (Note: This was also the name of a Kafer *Gnich* \*.)

## KAFER WORLD AND STAR NAMES

Kafer names for stellar and planetary bodies are brief and descriptive. The following list gives a few of the important Kafer worlds, together with a translation of the name. It is not known whether the lack of a Kafer name for a particular body indicates that the Kafers did not think it important enough to name or if this name has not yet come to light.

**Arrach\*\*ah:** "Enlightened One" (Oneil 723).

**Ch\*\*ah:** "Place of Struggle" (BK + 00 2334).

**Ch\*Ch\*\*ah:** "Deadly One" (HC+13 232 A).

**Ch\*!!'ah:** "Not Face Death One," or "The Place Where Death Is Not Faced." A construct meaning "Peaceful?" (Lambda Serpenti-IV).

**Gahshak'ah:** "Dimly Sparkling One" (Ross 508).

**G'dah:** "Massive One" (Satellite of Lambda Serpenti-IV).

**Gh'kang'ah:** "Chill, Bright One."

**Kaa'a'ah:** "Rugged" or "Mountainous One."

**Shghgh'ah:** "Promising One" (DM+ 24 2786 A II).

**Shsh'ah:** "Wet One" (DM+ 19 2881 A II).

**Da've'ah:** "Dry One" (Chien 112).

**Da'veh'ah:** "Clouded One."

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*While Kafer language is suited to the way Kafers appear to think on a physiological level, it poses some problems for those attempting to communicate with them on a psychological level. Kafer speech—and therefore, thought—does not appear to be capable of multi-valued logic, which makes them extraordinarily difficult to reason with.*

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## KAFER LANGUAGE STRUCTURE

Kafer language structure is quite different from human languages, a reflection of the fact that their thought processes are different from those of humans. Kafers apparently think in short, intense "bursts," which convey many shades of meaning within a single, related grouping of thought symbols.

Kafer thinking, speech, and writing are represented by the idea of *phoneme-glyphs*, each of which represents a single Kafer thought or concept. Like Mandarin and some other Terran oriental languages, Kafer writing consists of complex, individual pictures or *glyphs*, each of which represents an entire word, and which may incorporate a long and complex meaning through a very few sounds.

Kafer speech includes an amazing number of different phoneme-glyphs for the word "fight." Thus, *vakach* \* means a recreational or social fight; *kach* \* is a fight for self-awareness; *grach* \* is the fight for self-awareness which first leads to self-understanding and awareness in a Kafer naming ceremony; *jagh'lach* \* is a kind of group fight for social enlightenment, and so on.

Most Kafer words consist of only one or two syllables (some complex ideas have more), and there seem to be no modifiers—adjectives, adverbs, or conventions for distinguishing between, for example, a question and an exclamation. Instead, all of these factors are incorporated into the structure of a single word.

This structure is extremely subtle. It has only recently been realized that the movements and positions of a Kafer's pedipalps as it speaks, though they add nothing to the sound of each word, may act as verbal modifiers. Thus, Kafer communication is visual as well as verbal. It would thus incorporate elements of such visual languages as that of the recently discovered inhabitants of the planet circling DM + 1 7 2611, or Terran sign languages such as Ameslan. Slight modifications of pronunciation, many scarcely distinguishable by human ears, may also serve as modifiers.

While Kafer language is suited to the way Kafers appear to think on a physiological level, it poses some problems for those attempting to communicate with them on a *psychological* level. Kafer speech—and therefore, thought—does not appear to be capable of multi-valued logic, which makes them extraordinarily difficult to reason with.

For example, translation of the word *kavaluch* \*, meaning Kafer racial destiny and power (the concepts of destiny and power are interchangeable), suggests a choice between a Kafer victory in which the entire universe is subjected to Kafer domination and will, or complete defeat in which the Kafer race becomes extinct. In a dual-level logic, the statement must be "either/or," and there is no possibility of any other value, levels of success or defeat, or of compromise. It has been suggested that Kafer language may have warped their development (in terms of the way they think about the universe), at least as much as the nature of their intelligence. The relationship between their dual-nature intelligence and their language structure is still being studied.

Studies of Kafer language are now thought to offer us our best chance of understanding this alien intelligence. It may very well be that such studies offer humanity its only hope of survival.

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### LEARNING TO SPEAK KAFER

*Gah*, "the speech," is only slowly becoming understood as a result of careful analysis, using linguistic translation programs and computer studies, principally at the Extraterrestrial Institute of the Sorbonne at La Cite d'Aurore. These studies have only been possible since the capture and interrogation of living Kafers in the fighting on Aurore.

If, in earlier **2300 AD** adventures, the characters participated in the capture of one or more living Kafers, they should be informed that the first payoffs of their earlier endeavors have already been realized. By learning the basics of Kafer speech, much has been learned about their history, their physiology, and their psychology.

Acquiring such information about the enemy is the only hope humanity has for eventual victory against this implacable enemy.

### KAFER WRITING

An example of Kafer writing is on page 41. Kafer glyphs always *appear* as patterns of three marks or lines, sometimes overlapping, but always related. Kafer writing developed, it is believed, as Kafers dipped the tips of their three fingers of one hand into ink and used these as brushes on a paper-like substance to form glyphs. The practice lent itself readily to the concept of phoneme-glyphs, each with a separate "picture," or glyph, equivalent to one individual word or concept, which was equivalent to one isolated Kafer "thought-burst."

### LANGUAGE AND TACTICS

Just as Terran eskimos have many words for "snow" and only one word for "tree," Kafers have many different words for combat. One word may represent the idea of a defensive fight on a hill, another for a sneak attack, still another for a successful battle which began with an enemy attack at sunup. Terran linguists and military theoreticians are currently making a careful survey of Kafer language forms related to combat in hopes of determining their equivalent of battle tactics. It is thought that much of the corpus of Kafer battle tactics is determined by the way they *think* about combat, which in turn is shaped by (and shapes) their language—the way they *speak* about it. This would help explain how Kafers can retain certain tactical concepts which require considerable training and practice for human soldiers. It is possible they acquire the basics of tactical theory as they learn the language and are able to apply it once stimulated to enough intelligence to understand it.

Careful studies of Kafer language may yet present humanity with an opportunity to understand—and defeat—the Kafer menace.

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*Just as Terran eskimos have many words for "snow" and only one word for "tree," Kafers have many different words for combat.*

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# Kafer Technology

This chapter describes various aspects of Kafer technology and lists some common examples of their weapons, machines, and spacecraft.

## KAFER TECHNOLOGICAL PHILOSOPHY

The very concept of Kafer technology carries with it a contradiction. The development of technology requires intelligence and research applied over a period of time, and it requires the long-term commitment by a sizable fraction of a population to develop the products of research into the products of technology. Kafers, however, do not normally have the intelligence either to plan and carry out research projects, or to apply the results of that research to technological inventions, be they flint knives, incandescent light bulbs, or stutterwarp drives. More, Kafers tend to exhibit strong and deeply-rooted suspicions against anything or anybody which shows evidence of high intelligence, a natural reaction to the old threat of the "smart barbarian."

The answer to this seeming paradox is three-fold.

First and foremost, Kafer technology (as evidenced by new inventions and machines) has always been primarily military in nature. The old "safe-places," which became the early city-states were places where a sizable part of a troop's numbers could remain to manufacture and store weapons. Advanced weapons were rarely associated with the "smart barbarians"; frequently, a city-state would arm its citizens with bronze or iron spears, yet be brought down by barbarians using stone or copper, simply because the barbarians *used* their more primitive technology far more effectively.

Military technology has always been highly prized by Kafers as a means to enthusiastically pursue their favorite sport: combat. Nearly all Kafer technology is related in some way to military developments of one sort or another.

Secondly, Kafer memories allow the products of research to be held for long periods of time, until the time is right for them to be applied. This means that the process of invention and innovation is much slower for Kafers than it is for humans, but the results are not forgotten when an individual Kafer scientist lapses into its basic, low level of intelligence.

Most insights and discoveries are made by Kafer scientists engaged in *jagh'lach* \* with other scientists. The nature of Kafer thought processes suggests that a new idea comes full-blown and more or less complete, as a single, sharp insight. The scientist who has the thought may soon lapse into stupidity and be unable to *apply* the new idea...but it will not *forget* the idea and will be able to use it the next time it is stimulated.

Some ideas, of course, are the products of Kafer geniuses— individuals corresponding to human Einsteins or Newtons who have a high level of intelligence all the time. It should be remembered, however, that even the brightest Kafer genius would only be considered of high-average intelligence if it were a human.

Moreover, such individuals are rare among their populations, whether Kafer or human. If Kafer technological advances relied solely on breakthroughs made by such geniuses, they would require not thousands of years, but tens or hundreds of thousands of years simply to advance from the beginnings of their industrial revolution to an understanding of electronics, so many and so complex are the chains of innovation and discovery which connect movable type with an electronic computer.

Finally, Kafer scientists tend to be among the more intelligent of individual Kafers. (This fact seems reasonable enough, since you have to have a fairly high basic intelligence to be able to ask questions—a scientist's favorite pastime.) While they share certain basic Kafer traits (stupidity raised to intelligence by threat, and short tempers) they are both bright enough and well trained enough to channel their aggression in productive directions. In other words, a Kafer scientist might become extremely angry at the failure of a research project or experiment to work out, but rather than smashing its laboratory, it has acquired the self-discipline needed to channel the anger—and the momentary flash of intelligence which may accompany it—into a successful breakthrough...or at least the insight which lets it realize it's on the wrong track and must start again from a different perspective.

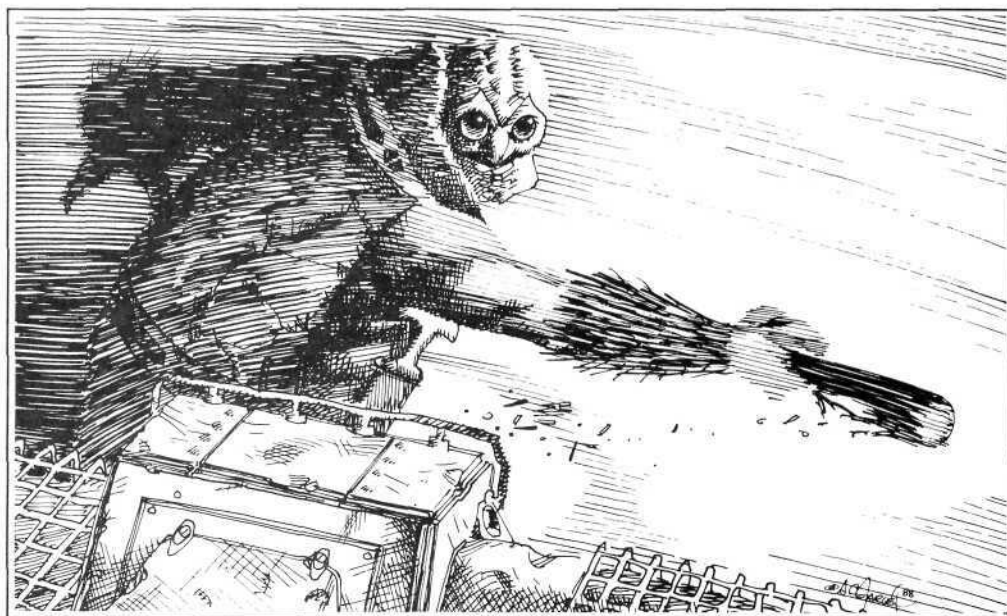
## USING KAFER VEHICLES

*Player characters may find themselves in need of transportation in a hurry, and all that is available is a Kafer bugbus. Driving a Kafer vehicle requires two separate tasks: The first to figure out how to operate the vehicle, and the second to control the vehicle once it is in motion.*

**Task:** *To figure out Kafer vehicle controls (Unskilled): Difficult. Vehicle skill. 30 seconds.*

**Task:** *To control moving Kafer vehicle (Unskilled): Difficult. Vehicle skill. Instant.*

Referee: *The task for controlling the Kafer vehicle should be rolled at any point where loss of control is possible (i.e., the sudden appearance of NPCs on the road ahead, or during navigation of a soft, narrow shoulder at the edge of an embankment). The nature of a mishap depends on the situation.*



## THE NATURE OF KAFER TECHNOLOGY

Several basic statements can be made about Kafer machines and technology in general. Kafer machines are largely shaped by the natures of the creatures which build and use them. All Kafer machines, including vehicles, weapons, and even devices such as electronic scanners or surveillance gear, tend to be heavy, bulky, and extremely simple to operate. The advantages of such designs are obvious since typical Kafers must be able to operate the equipment even when not "stimulated" to brilliance, and must be able to do so after rather simplistic and heavy-handed training sessions.

A second feature of Kafer equipment is its durability. Kafer machinery is built solidly, with an eye to the likelihood that a Kafer may lose its temper and strike the machine, or try to make the machine "smarter" by beating it with a crowbar. Most delicate pieces of equipment, switches, and circuitry access on Kafer control panels are barricaded behind a grillwork of interlocking bars or a heavy wire mesh, and these protective barriers are commonly dented or show other signs of rough usage.

Kafer machines rarely show the fascination with miniaturization which characterizes Terran technology. Radios and other communications gear are still quite large and clumsy, and generally are designed as backpack units or as vehicular units. Since Kafers are, on the average, considerably stronger than humans, their weapons tend to be heavier than their Terran equivalents, in order to carry heavier rounds or power sources, and to pack a correspondingly more powerful punch.

## GAPS IN TECHNOLOGY

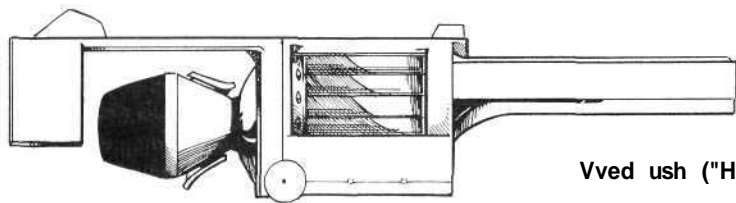
In most respects, Kafer technology appears to be equivalent to human technology. Some isolated devices (including batteries and plasma cartridge power cores) appear to be somewhat smaller and more efficient than equivalent human devices, while others (vehicles, computers, stutter-warp drives) appear much heavier and more cumbersome. This is due, at least in part, to differences in philosophy, rather than to ability. Kafers tend to build their machines large, massive, and rugged, and are relatively uninterested in constructing devices which are smaller and more compact.

One glaring difference in technologies exists between humans and Kafers. Kafer medical technology appears to be almost nonexistent. Wounded Kafers are left to suffer without the benefit of anesthetics (the notion of artificially reducing pain is anathema to a Kafer). Field surgery is limited to amputation of shattered limbs and the use of a hot iron for cauterizing the stump.

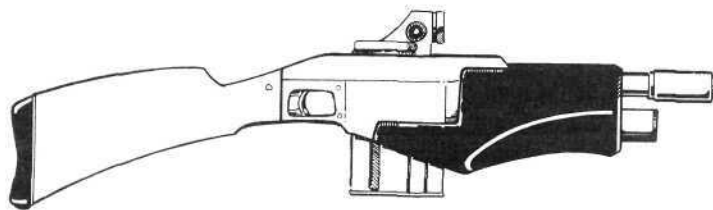
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*Kafer machines rarely show the fascination with miniaturization which characterizes Terran technology.*

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Vved ush ("Horse Pistol")



Vved ach\* ("Thud Gun")

The use of drugs to combat infections is in a very primitive state, consisting mostly of topical solutions like carbolic acid. This gap in Kafer technology is almost certainly due to a fundamental difference between human and Kafer philosophies.

Kafer computers show a curious blend of antiquated and highly sophisticated technologies. This is a result of Kafer contact over the past few centuries with the non-human intelligent species known as the Ylii.

## KAFER EQUIPMENT

The following list contains a number of common items of Kafer technology. Many have been described in other products dealing with Kafers, but they are included again here for completeness and to permit a coherent picture of Kafer technology.

As a side note, Kafers have no coherent identification system for their equipment. Things are most commonly given a descriptive nickname (such as *Gah erech \**, "big explosion maker"), or named after their inventor. An especially prolific Kafer might invent several different things with the same name, or differentiated by a sequential label such as *Vvesh vah'ech \** "latest thing made by *vah'ech \**." The whole system is very confusing.

## KAFER WEAPONS

**"Horse Pistol":** (Kafer: *Vved ush*) An extremely heavy, ruggedly built revolver. It is oddly shaped, to human eyes, with a half-ring support which fits around the Kafer's wrist when it grasps the weapon's frame behind the cylinder, rather than a pistol grip as in human weapons.

Type: 14.5mm revolver Weight: 1.3 kg (Bulk = 0) Length: 31 cm Ammunition: 14.1 x 31mm fixed cartridge ball Muzzle Velocity: 490 mps Magazine: 6-round cylinder Weight of 6 rounds: 0.2 kg ROF: 5 Aimed Fire Range: 80 meters Area Fire Burst: 3 rounds (AFV = 0.25 Area Fire range: 40 meters DP Value: 9

**"Thud Gun":** (Kafer: *Vved ach \**) An assault rifle with integral grenade launcher similar to the German SK-19. It has the general appearance of a rifle, with recognizable stock, trigger, and magazine assemblies, but the overall shape is oddly curved.

Type: 12.1 mm assault rifle with integral 27.2mm grenade launcher Weight (empty): 6.5 kg Length: 76.2 cm (Bulk = 2) Action: Single shot or bursts Ammunition: 12.1 x 31mm APHE Muzzle Velocity: 610 mps Magazine: 66-round magazine Magazine Weight: 2 kg ROF: 2 Aimed Fire Range: 500 meters Area Fire Burst: 10 (AFV = 1.5) Area Fire Range: 300 meters DP Value: 1.1

Type: 27.2mm grenade launcher Muzzle Velocity: 375 mps Magazine: 9-round box magazine

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*Kafers have no coherent identification system for their equipment. Things are most commonly given a descriptive nickname (such as *Gah erech \**, "big explosion maker"), or named after their inventor.*

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## USING KAFER WEAPONS

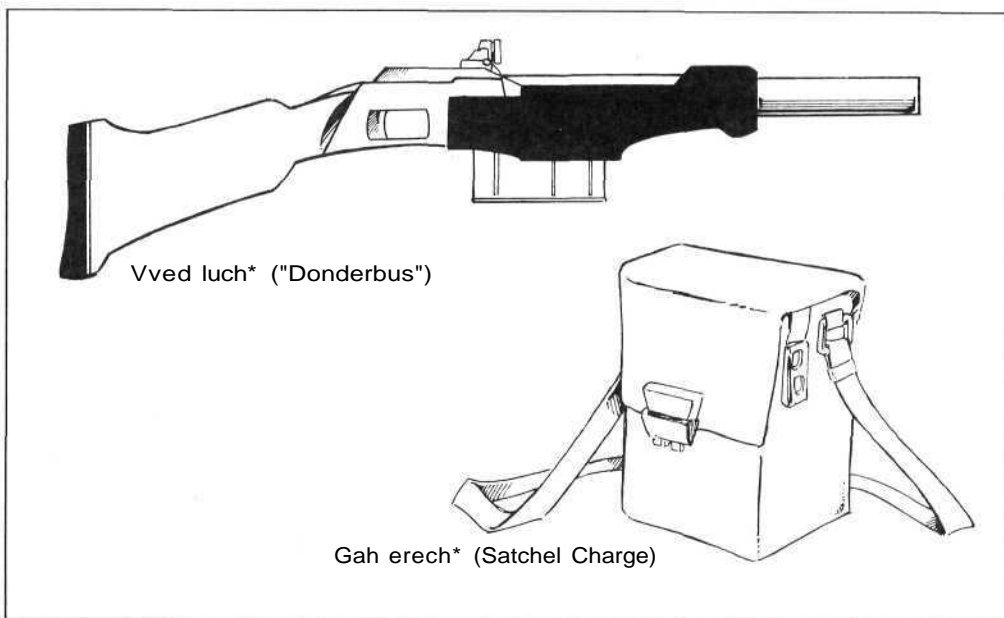
Player characters in a tight spot may attempt to use abandoned or captured Kafer weapons in combat. Success is determined as two separate tasks:

**Task:** To fire Kafer weapon (Hazardous): Difficult. Weapon skill. Absolute (1 action).

**Task:** To hit target with Kafer weapon (Routine): Difficult. Weapon Skill. Absolute (1 action).

Referee: Increase difficulty level by 1 for each increase in range.

Firing a Kafer weapon is considered "Hazardous," requiring a 3D6 roll on the Failure table. Depending on the situation, mishaps may result in injury to the character (trauma from the recoil in firearms, burns from unshielded or hot surfaces in plasma or laser weapons). The referee should allow advantages for characters who take due caution in the attempt (bracing the weapon against a wall or other support, for example, to protect their shoulders).



ROF: 2 Aimed Fire Range: 600 meters DP Value: As explosion, (EP = 4)

**"Flashlight":** (Kafer: Vvedkala'ach \*) A simple, extremely rugged laser rifle with an integral grenade launcher. It consists of a heavy, ridged tube mounted in front of a massive, oddly curved stock.

Type: 75-01 laser rifle with integral 27.2mm grenade launcher Length: 76.2 cm (Bulk = 2) Action: Single shot Pulse Energy: 0.7 mj Muzzle Velocity: C Magazine: Kafer-manufactured power cell with energy for 12 pulses Magazine Weight: 1.8 kg ROF: 5 Aimed Fire Range: 1 300 meters DP Value: 2

Type: 27.2mm grenade launcher Muzzle Velocity: 375 mps Magazine: 9-round box magazine ROF: 2 Aimed Fire Range: 600 meters DP Value: As explosion, (EP = 4)

**"Donderbus":** (Kafer: Vved luch\*) A rugged, massive, close-assault shotgun which may also fire propelled grenades.

Type: 19mm Automatic Shotgun Weight (empty): 4.5 kg, Length: 70.5 cm (Bulk = 2) Action: Single shot or bursts Ammunition: 19 x 58mm fixed cartridge buckshot (6 x 8mm slugs) or 19mm grenade Muzzle Velocity: 402 mps Magazine: 8-round box magazine Magazine Weight: 0.8 kg ROF: 2 Aimed Fire Range: 85 meters Area Fire Burst: 4 rounds (AFV = 0.8) Area Fire range: 65 meters DP Value: 0.5 ( x 6)

Type: 19mm high-explosive armor-piercing propelled grenade DP Value: As tamped explosion (EP = 3) Weight: 0.3 kg

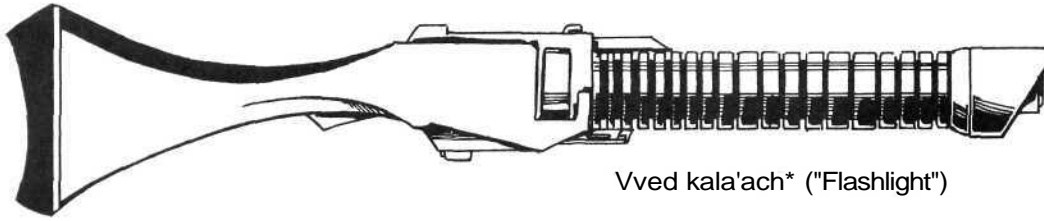
**"Beamer":** (Kafer: Gh'eh Kalech \*) High-energy plasma gun mounted on vehicles.

Type: 40-megawatt vehicle-mounted plasma gun Action: Single shot Ammunition: Charged cells, 13.3x28.3mm, similar to Terran photonic core plasma cells, but more compact Ammunition Weight: .2 kg Magazine: 100 cells in detachable cartridge magazine Aimed Fire Range: 2000 meters DP Value: As tamped explosion (EP = 5)

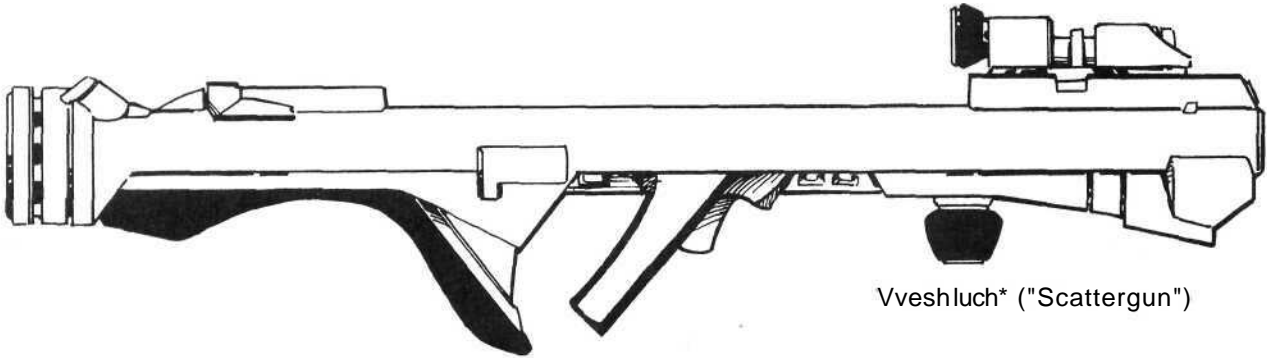
**"Tri-beamer":** (Kafer: Gh'eh uch \*) Three high-energy plasma guns fitted to rotating mount for gatling-type, high-speed fire. The weapon is mounted on heavy vehicles, or on a quadpod or heavy mount.

Type: 28-megawatt vehicle-mounted or static defense plasma gun Action: Three single shots, together or in rapid sequence Ammunition: Charged cells, 9.8 x 21.2mm, similar to Terran photonic core plasma cells, but more compact Ammunition Weight: .15 kg Magazine: 120 cells in detachable cartridge magazine Aimed Fire Range: 1 500 meters DP Value: As tamped explosion (EP = 4)

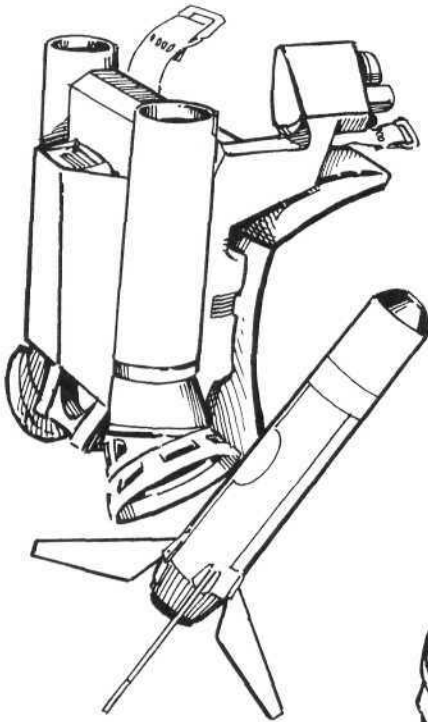
**"Hand Grenade":** (Kafer: Gaaach \*) General purpose explosive hand grenade. Weight: .4 kg DP Value: As explosion (EP = 3)



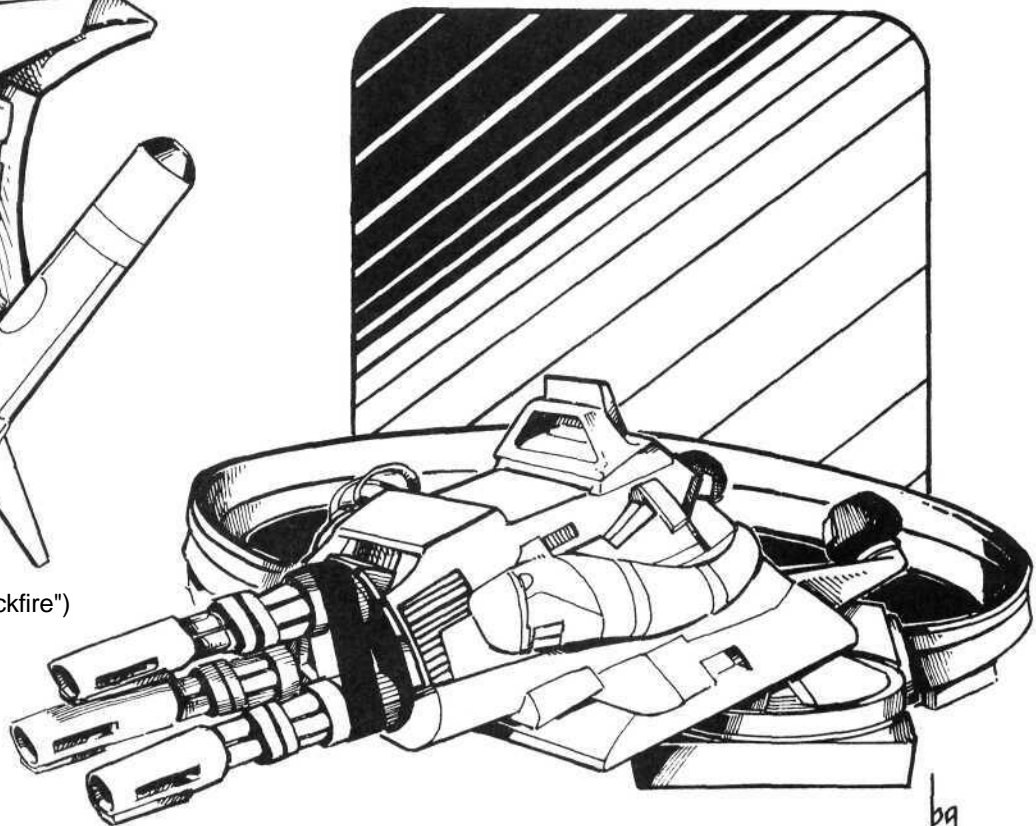
Vved kala'ach\* ("Flashlight")



Vveshluch\* ("Scattergun")



Vvesh vah'ech\* ("Quickfire")



Gh'eh uch\* ("Tri-beamer")

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*Kafer hand grenades are activated by banging them sharply against a hard object (such as the carapace), and throwing.*

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**"Satchel Charge:"** (Kafer: *Gah erech \**) General purpose high-explosive charge in carrying satchel with strap. It is carried by Kafer soldiers for use in general demolitions, or as a close-assault weapon against tanks, bunkers, and fortifications. *Weight:* 2.3 kg *Time Delay:* Variable, instant to approximately 30 seconds *DP Value:* As explosion, (EP = 5)

**"Quickfire":** (Kafer: *Vvesh vah'ech \**) Personnel-carried anti-vehicle missile, generally carried in special, backpack launcher. The launcher includes two preloaded tubes on either side of the backpack. Apparently, the missiles can only be fired by a Kafer *other* than the soldier carrying the pack. Missiles are IR or radar-targeted, fire-and-forget homing missiles with high-explosive warheads. Backpack launcher is disposable after two rounds.

*Type:* Troop-carried anti-vehicle missile *Launcher Weight:* 12 kg *Missile Weight:* 8 kg each *Range:* 5000 meters *Guidance:* Automatic homing *Homing Value:* 20 *Attack Angle:* Direct *Damage:* EP = 5

**"Scattergun":** (Kafer: *Vvesh luch \**) A small missile carried and fired by an individual Kafer trooper which explodes in mid-air, saturating the target area with small, heavy balls in a manner

similar to a gigantic shotgun. Missile is untargeted and is fired from a preloaded, disposable tube.

Type: Troop-carried antipersonnel missile Launcher Weight: 2.6 kg Missile Weight: 1.3 kg Range: 800 meters Guidance: None Damage: 1.2 (x 5)

## KAFER VEHICLES

**"Crawler":** (Kafer: *Shah shuch \**) General-purpose, fully enclosed, tracked APC, often equipped with a turret-mounted "Beamer" or "Tri-beamer" plasma gun.

Type: Tracked, all-terrain personnel carrier Crew: Driver Weight: 4500 kg Armor: Suspension: .8 All faces: 1.1 Signature: 8 Evasion: 0 Sensor Range: 6 km Cargo: 10 passengers and 2000 kg Max Speed: 80 kph Cruising Speed: 40 kph Combat Movement: 160 meters Off-Road Mobility: Full Power Plant: Hydrogen fuel cell, approximately 0.2 MW Fuel Capacity: 204 kg Fuel Consumption: 6 kg/hr Endurance: 34 hours

**"Bugbus":** (Kafer: *Shah ja'ushch \**) General-purpose, open-topped, tracked APC. A Kafer "Beamer-" or "Tri-beamer-" type plasma gun is often fixed to a mounting ring to the left of the driver.

Type: Tracked, all-terrain personnel carrier Crew: Driver Weight: 5100 kg Armor: Suspension: .8 All Faces: 1 Signature: 8 Evasion: 0 Sensor Range: 6 km Cargo: 17 passengers and 2500 kg Max Speed: 90 kph Cruising Speed: 50 kph Combat Movement: 180 meters Off-Road Mobility: Full Power Plant: Hydrogen fuel cell, approximately 0.2 MW Fuel Capacity: 240 kg Fuel Consumption: 8 kg/hr Endurance: 30 hours

**"Deathsled":** (Kafer: *Shah uch \*k*) Large, heavily armed hovertank. It is equipped with a turret-mounted mass-driver cannon with a rear-facing missile launcher, and a commander's cupola with a "Beamer" facing one direction, and an autocannon and machinegun facing in the other. The vehicle does not have jump-jet capability above approximately two meters. Captured vehicles indicate four crew positions: a driver, commander, gunner, and a fourth crew position known to humans as "the kibitzer."

Type: Hovertank Crew: Commander, gunner, driver, kibitzer Weight: 23,000 kg Armor: Plenum: 35 Front: 120 All Other Faces: 40 Armament: 10.13cm mass-driver gun in turret Aimed Fire Range: 2000 meters Range Finder: + 1 ROF: 3 Rounds Carried: 62 DP: 110. Twin anti-vehicle missile launcher mounted externally on turret side. Missiles appear roughly equivalent to French Manta-1. No reloads carried. One 40-megawatt plasma gun mounted in commander's cupola, with one 22.2mm autocannon (similar in all respects to Type-12 Autocannon) and one 12.1mm MG (similar to Type-12 Autocannon) and one 12.1mm MG (similar to DunArmCo Mini-12). Signature: 8 Evasion: 4 Sensor Range: 8 km Cargo: 1000 kg Max Speed: 170 kph Movement: 320 meters Off-Road Mobility: Full Power Plant: 3MW MHD turbine Fuel Capacity: 700 kg Fuel Consumption: 100 kg/hr Endurance: 1 hours

**"Kafer Jeep":** (Kafer: *Eh'luuuuh*) Standard Kafer vehicle, common on the Kafer homeworlds and as a transport on occupied worlds. It may correspond to a civilian car. Power plant is generally run by combustion of various petrochemicals, though fuel-cell versions are available for worlds without significant oxygen in their atmospheres.

Type: Wheeled ground car Crew: Driver Weight: 1000 kg Armor: Suspension: 0.3 All Faces: 0.5 Signature: 3 Evasion: 2 Cargo: 3 passengers and 200 kg Max Speed: 120 kph Cruising Speed: 90 kph Combat Movement: 240 meters Off-Road Mobility: Halved Power Plant: Petrochemical-fueled internal combustion engine Fuel Capacity: 40 kg diesel Fuel Consumption: 10 kg/hr Endurance: 4 hours

## MISCELLANEOUS KAFER EQUIPMENT

**"Cattle Prod":** (Kafer: *Shgah'ur*) A device carried by Kafer officers, apparently as a badge of office. Its immediate purpose will be unknown, except to characters with sufficient experience to have seen it used in action. It generates a high-voltage, low-amperage current when a stud on one end is pressed. In Kafer soldiers, the device generates sufficient shock and pain to generate a low-level attack/intelligence response (enough to make them understand the orders which follow). In humans, it causes severe pain, shock, disorientation, and stun effects. Repeated attacks may cause short- to long-term paralysis of affected limbs, hysteria, and panic reactions. Unless it is observed in use, its purpose will not be clear. Possible assumptions could be a hand-to-hand weapon or some type of tool. Identity: Difficult Weight: 0.8 kg Length: 38 cm DP Value: .5 (Stun only)

## KIBITZER

The Kafer vehicle known as the "Deathsled" carries a crewmember initially identified as the "Kibitzer" in military journals. The precise function of this crewmember remains a mystery to humans, but the actual function is that of chief mechanic (although an equally good title would be crew chief). The average Kafer can be cross-trained to perform some simple maintenance functions, but the more complicated nature of the "Deathsled's" equipment necessitates the allocation of a crew position dedicated to important maintenance tasks.

The referee can determine exactly how (and if) the player characters discover this minor bit of information. If desired, it can be allowed to remain a mystery.

Analysis has determined that Kafer food is preserved, but only after it has become partially rotten.

**"Scepter":** (Kafer: *Shgah'vv*) A device carried by Kafer officers, apparently as a badge of authority. Its immediate purpose will be unknown, except to characters with sufficient experience to have seen it used in action. It is similar to the "cattle prod" above, in function, but includes a device which magnetically propels a small, iron pellet at great speed (though not enough to make it lethal). The scepter is used by Kafer officers to attract the attention of soldiers, and to generate an attack/intelligence response at ranges of up to 20 meters. *Identify:* Difficult *Weight:* 2.6 kg *Length:* 86 cm (Bulk = 2) *Range:* 20 meters *DPV:* 0.4 Damage and effects from electric shock as for cattle prod, above.

**"Gorget":** (Kafer: Unknown) An asymmetrical metal and plastic device worn by Kafer officers. Senior officers have larger, more elaborate gorgets. All are worn as part of a Kafer battle harness. It is quite thick and heavy for its size, and was originally thought (until examples were captured on *Aurore*) to have some unknown, hidden function (such as armor, a communicator, a computer, or a tracking device). The device seems to be purely ornamental. Its design reflects obscure Kafer symbology. *Identify:* Difficult *Weight:* Varies, 0.3 to 0.9 kg

**"Combat Harness":** (Kafer: Unknown) A leather, load-bearing harness and belt, with numerous O-ring attachments for scabbards, holsters, and equipment. It is oddly shaped in order to fit a Kafer's dorsal carapace and will not fit humans without extensive modifications. *Identify:* Simple *Weight:* 0.6 kg

**"Combat Knife":** (Kafer: Unknown) A long, double-edged knife worn by most Kafers on their combat harness. Its only differences from human knives are its weight and its odd, T-shaped handle adapted to fit Kafer hands. *Identify:* Routine *Weight:* 0.6 kg *Length:* 29 cm

**"Kafer Baseball Bat":** (Kafer: Unknown) A one-meter tube of dense wood or heavy plastic found in Kafer encampments, and sometimes seen in the possession of Kafer officers. A common assumption is that it is a practice weapon or possibly a staff of authority. In fact, it serves a purpose similar to a cattle prod and is used to get a soldier's attention, raising its intelligence sufficiently that it can understand an order. It is especially useful in training Kafer young. *Identify:* Difficult *Weight:* .5 kg *Length:* 96 cm (Bulk= 1)

**"Whip":** (Kafer: Unknown) A three- to five-meter, braided leather whip with a massive, T-shaped handle and leather thong. Like baseball bats and cattle prods, it is carried by some Kafer officers to gain the attention of their troops. *Identify:* Routine *Weight:* Varies, 0.5 to 1 kg

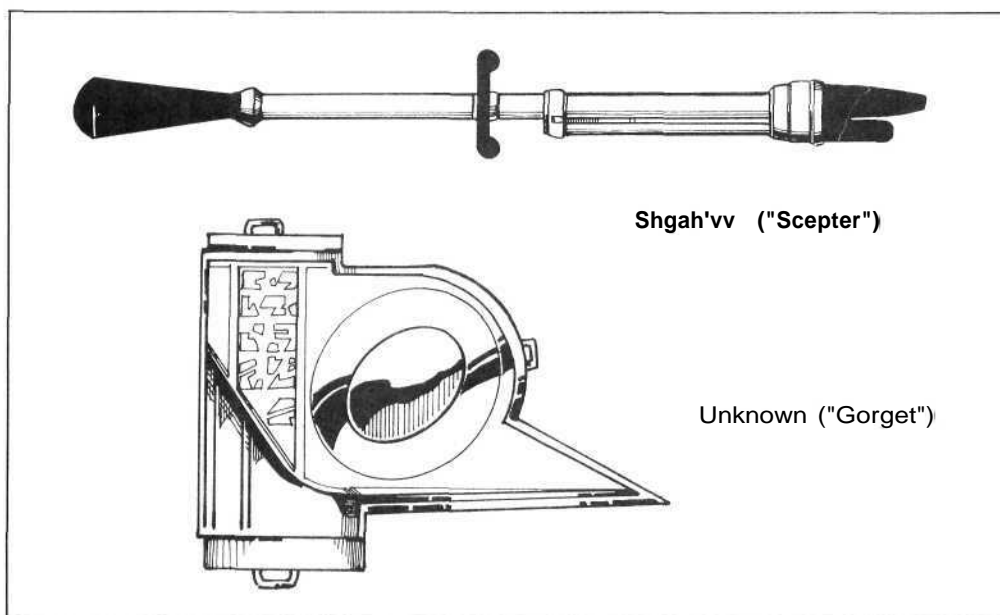
**"Meathook":** (Kafer: Unknown) Sharp, wickedly curved metal hook with a T-shaped handle and a long haft carried by nearly all Kafers. Its purpose is unknown. A common assumption is that it is some type of hand-to-hand weapon, or a device for prying open wooden crates. In fact, it is an implement for personal grooming, used to pick stones and dirt out from under the dorsal carapace, and chunks of food or bone from behind the oral labia. *Identify:* Difficult *Weight:* 0.3 kg *Length:* 31 cm

**"Worry Thing":** (Kafer: Unknown) A small, oddly shaped piece of metal or ceramic. Many have been found in Kafer encampments. Their purpose is unknown. A common assumption is that they correspond to human "worry stones" (hence the name): small, smooth objects which are comfortable to hold and pleasant to manipulate between the fingers. The actual purpose is more practical. Kafers hold them in their pedipalps, and use them to strop their oral pinchers and mandibles, an action which sharpens and cleans them, and is probably pleasurable to them. *Identify:* Formidable *Weight:* Varies, usually less than 0.2 kg

**"Ration Pack":** (Kafer: Unknown) A satchel carried over the shoulder on a strap or attached to O-rings in a Kafer's combat harness or carapace. It carries a variety of common Kafer food items, including "rotten sausage" and foodsticks. One pack appears to carry enough food to support one Kafer for at least several weeks. *Identify:* Routine *Weight:* 2.7 kg

*Note:* Analysis has determined that Kafer food is preserved, but only after it has become partially rotten. Though unpleasant in taste, texture, and smell, it is not harmful to humans and could support human life for a considerable (though not indefinite) period. Stories that Kafers kill and process humans for food have not been verified.

**"Area Lights":** (Kafer: Unknown) Powerful, broad-area lights similar to high-intensity Ter-ran streetlights, arc lights, or security lights. They are generally mounted on 10-meter-tall poles, but may be fixed instead to buildings or vehicles. Light appears white to blue-white to human eyes and is rich in ultraviolet. Most humans note that unprotected eyes burn, tear, or itch after a few moment's exposure. Design of the light is strange enough to human eyes that some may assume it has a hidden purpose (such as surveillance). *Identify:* Routine *Weight:* 1.2 kg



Shgah'vv ("Scepter")

Unknown ("Gorget")

*Note:* A common observation by Terran watchers is the use of these lights in conditions of moderate to poor visibility, when peak lighting is in red or red-orange wavelengths. The presence of these lights strongly supports independent observations that Kafers have difficulty seeing in primarily red light, which may be invisible to them.

**"Shelter":** (Kafer: Unknown) A prefab hut constructed of castings of crushed rock or dirt, consisting of little more than four sloping walls with one door and a slanted roof. Dirt or rock is loaded into a massive, treaded casting machine, which heats the material and binds it with a plastic base, then extrudes it as solid, preformed slabs. A typical hut can be constructed in less than 20 minutes. It cannot be moved once in place, and is abandoned after use. *Identify:* Simple *Size (typical shelter for four individuals):* 2.5 meters x 3 meters x 2.2 meters to 2.5 meters tall *Armor Value:* .5

**"Environment Suit":** (Kafer: Unknown) A pressure garment tailored to adult Kafer specifications, which apparently serves as either a vacuum suit, a hostile environment suit, or both. It appears to be resistant to corrosive, radiological, biological, or toxic hazards. The helmet has audio sensors. The suit has not been encountered among Kafer ground forces as of yet, and may be used only as a space suit by naval personnel. Life support duration appears to be approximately 15 hours. *Identify:* Routine *Weight:* 35 kg *Armor:* 0.5 *Initiative:* -2

**"Helmet":** (Kafer: Unknown) A ceremonial metal and plastic helmet which may indicate rank or status. It is only occasionally worn in the field. Its purpose will not be readily apparent to anyone who has not seen it being worn, for it is oddly shaped and partly open, rather than being designed to closely fit the Kafer skull. *Identify:* Difficult *Weight:* 0.3 kg

**"Manacles":** (Kafer: Unknown) Any of a wide variety of restraint devices, usually consisting of a pair of thick, metal cuffs joined by a stiff restraining bar or by a length of chain. They are used to restrain prisoners (including humans). Variations exist for cuffing wrist-to-wrist, ankle-to-ankle, wrists-to-ankles; for joining prisoners together in a line; and for attaching to a ring snapped through a Kafer carapace or attached to a forearm. *Identify:* Simple *Weight:* Varies, from 0.3 to 3 kg

**"Binoculars":** (Kafer: Unknown) Visual binoculars which include thermal imaging for night visibility and for limited visibility in fog. Adjustable magnification from 2x through 14x. Includes built-in range-finder based on sonar echo return, with range read-out in Kafer notation. *Identify:* Simple *Weight:* 1.2 kg

**"Thermal Image Goggles":** (Kafer: Unknown) Simple imaging device worn over the eyes, molded to fit across the Kafer's brow ridges. It permits visual imaging of a wide range of the electromagnetic spectrum, from short IR through visual red-orange and enables the Kafer to

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*The presence of these lights strongly supports independent observations that Kafers have difficulty seeing in primarily red light, which may be invisible to them.*

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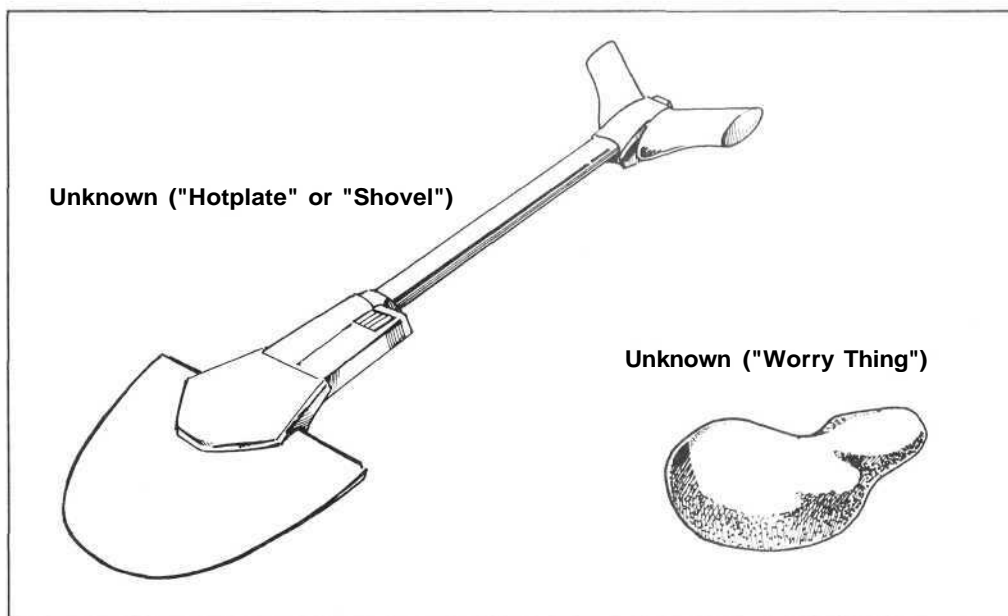


## KAFER MEDICAL TECHNOLOGY

The lack of Kafer medical technology is the result of their psychology. For Kafers, the supreme moment of life is when they face death. That a Kafer's last moments of life should be dulled by drugs would be disgusting—even horrifying—to a normal Kafer.

Kafer physiology is more resistant to trauma and to systemic shock than humans'. With a lower heart rate and blood pressure, they are less likely to bleed to death than humans. Kafer field first aid is quite superficial and makeshift. Hot irons are used to cauterize deep wounds and seal amputated limbs. Spray and powdered antibiotics and disinfectants are used for antiseptics, and these tend to be quite primitive by human standards (antiseptics tend to be irritants like carbolic acid or alcohol, which would be quite painful to humans). Kafer medical aid is often seen as torture by humans.

As a result of the relatively primitive state of their biochemical science, Kafers possess a poor understanding of their own physiologies. Kafers only suspect the existence of the chemical adrenaline-analogue which boosts their intelligence. For the technically adept Kafers, manufacturing an artificial intelligence-boost drug would be simple, but their physiological ignorance has robbed them of the simplest means of breaking free of the limitations of their own minds. On the other hand, being the way they are, they wouldn't want to change if they could.



see in the dark. Analysis of the spectrum across which imaging is obtained corroborates observations that Kafers are blind or near-blind at these frequencies. Since they contain delicate electronics, these devices are quite rare and appear to be carried in the field only by vehicle commanders, high-level *gnich* \* and specialists such as snipers. The device includes a built-in power pack with an indefinite but long lifetime. *Identity*: Routine *Weight*: .8 kg

*Note*: These devices intensify long-wave radiation and shift it to short-wave in order to make it visible to Kafer eyes. The image display is centered in the white to yellow-white portion of the human visual spectrum and includes a high percentage of ultraviolet. Short-wave visible radiation (blue-white to violet) is shifted entirely into the UV portion of the spectrum, and there is no cut-out to protect the vision from accidental exposure to bright light. Use of this device without modifications can be harmful to human vision.

**"Hotplate" or "Shovel"**: (Kafer: Unknown) A half-moon-shaped, slightly convex piece of metal attached to a metal rod with a T-shaped handle, designed to be grasped by Kafer hands. An integral battery pack provides power to heat the metal plate red hot. The purpose of the device is unclear. The top speculations are that it is a digging tool or a hand-to-hand weapon. In fact, the device is a cauterizing iron for sealing off severed limbs and closing bleeding wounds. *Identity*: Formidable *Weight*: 0.4 kg *Length*: 51 cm.

**"Torture Rack"**: (Kafer: Unknown) A frightening-looking framework of metal bars two meters tall, with movable hooks attached to the crossbar and uprights, often found in Kafer encampments. Frequently, the carcasses of an unidentified life form have been found hanging in the sun, supported by one or more of the hooks. The purpose is unknown, though popular supposition assumes the device is some sort of torture device. (There are well-attested accounts of humans having been hung on the framework during interrogation sessions, supporting this idea.) Carcasses removed from the racks and studied have proven to be one of several species which appear related to Kafers biochemically (suggesting they come from the Kafer homeworld), but are considerably smaller and four-legged. There is no indication that these creatures are intelligent. Some have been found frozen among Kafer supplies.

The true nature of the "torture rack" is suggested by Kafer dietary preferences. They are used in the preparation of Kafer foods. Kafers, descended from scavengers, prefer their food raw and somewhat aged. Though preserved food had been found which approximates the condition of partially rotted meat (in essence, the food was allowed to spoil and was *then* preserved), Kafers appear to prefer "naturally" rotted meat. Carcasses of several small, Serpentinean food animals are thawed and hung from the racks in the sun until they acquire the consistency, smell, and flavor favored by Kafers. *Identify*: Difficult *Weight*: 4.5 kg *Size (when assembled)*: Approximately

2 meters tall by 2 meters wide, on a broad, stable base.

**"Kafer Computer":** (Kafer: Unknown) Devices have been recovered at several Kafer sites which are almost certainly computers used for information storage/retrieval. They are massive, bulky, and, by human standards, quite primitive. Programming appears to be accomplished by a rather cumbersome combination of keyboard commands and banks of thousands of mechanical switches. Several damaged examples of these computers have been removed to labs at *L'Institute Extraterrestre de la Sorbonne d'Aurore* for further study. While Kafer symbology appears quite well suited to binary programming (the concept of either/or is inherent in Kafer language), human technicians have not yet fully deciphered the Kafer programming language and operating systems.

No Kafer computer has been discovered yet in full working order. (Most seem to have been deliberately smashed with a wrecking bar or other heavy instrument.) It is hoped that the recovery of such a device will lead to breakthroughs in understanding Kafer technology, Kafer design philosophy, and Kafer psychology. *Identify:* Difficult *Weight:* Varies, 200 to 500 kg *Size:* Varies; approximately one to three meters wide and deep by one to three meters tall *Power Source:* Internal battery cells or any standard external power source.

**"Kafer Computer, Mark II":** (Kafer: Unknown) An anomalous discovery which is currently being intensively studied by scientists at *L'Institute Extraterrestre* on Aurore. Only one has been recovered, from the body of a Kafer officer killed at Aurore.

The device appears to be a computer of extraordinary design. It is small, light, and its smoothly curved, almost organic-looking design is sharply at odds with other examples of Kafer technology. The back is molded to precisely fit the forearm of the Kafer officer from which it was taken, and appears designed to cling to the limb through an internally-generated static charge. It is powered by the wearer's body heat.

The device receives audio input and transmits audible output through a small speaker designed to be plugged into a Kafer aural opening. Programming is determined by an insert in the device the size of a human thumbnail. Only one programming insert has been recovered—that which was in the device when it was found—and that appears to be a correlation of French and Kafer words... a high-tech version of a Kafer/French-French/Kafer dictionary. Technicians have been using this to decipher the Kafer language, but only slight progress has been made thus far. It appears, however, that this computer was used by the Kafer officer to interrogate captured humans in French.

The single greatest mystery of the device is its design. Comparing a typical Kafer information storage computer (above) with the translator device is similar (in terms of technological generations) to comparing a spear with a plasma gun. It seems obvious that the "Computer, Mark II" represents an anomaly in Kafer technology. The meaning is at present unclear. The discovery has been deemed important enough that extensive efforts are being made to secure another such device for comparison and further study. *Identify:* Formidable *Weight:* Negligible *Power Source:* Thermocouple/battery system of unknown characteristics (the single example was damaged).

Successful identification of the artifact will yield only the information that it is a computer of some kind, and that it does not appear to be a typical example of Kafer technology (especially in comparison to the "Kafer Computer").

*Note:* The "Computer, Mark II" is, in fact, a Ylii artifact. The nature of the Kafer-Ylii relationship is described in greater detail in "The Ylii."

**"Toy Goggles:"** (Kafer: Unknown) Transparent goggles on a strap. These extremely rare artifacts are a complete mystery to human investigators. Not only are they far too small to fit a Kafer (or human) head, they appear to be designed to *filter out* ultraviolet and blue light, and are transparent to long visible wavelengths and to most infrared wavelengths. In other words, they are the opposite of the Kafer thermal imagers described above. It is not possible that they could be for the Kafers, since Kafers would be unable to wear them...or to see much through them if they could.

The goggles are, indeed, protective goggles, but not for the Kafers. This is another Ylii artifact which will be found (very rarely) in places where Ylii have been held, such as aboard large starships or in well-defended Kafer encampments or cities. Ylii are sensitive to UV light and must wear such devices in environments lighted to Kafer ideals of comfort to keep from going blind. *Identify:* Formidable *Weight:* Negligible

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*No Kafer computer has been discovered yet in full working order. (Most seem to have been deliberately smashed with a wrecking bar or other heavy instrument.) It is hoped that the recovery of such a device will lead to breakthroughs in understanding Kafer technology, Kafer design philosophy, and Kafer psychology.*

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## FIGURING OUT KAFER EQUIPMENT

*Kafer equipment is, on the whole, extremely rugged and simple, but the purpose of, for example, a shgah'vv may not be readily apparent to humans. A task will be necessary for figuring out the equipment's function if it is not readily apparent (as with a vehicle or a gun).*

**Task:** To reason purpose and operation of Kafer equipment: Simple to Formidable. Intelligence. 12 seconds.

**Note:** Miscellaneous equipment listed in this chapter has a new stat given, labeled Identity. Identify provides the relative difficulty (simple, routine, difficult, formidable) of identifying the purpose of a piece of Kafer gear. Familiarity with Kafer technology, or previous experience with Kafers, will reduce the difficulty level by 1 or more levels.

A mishap result in this task may result in the character getting a completely mistaken idea of what the device is for.

## USING KAFER GEAR

Player characters in the field may be tempted to adapt abandoned or captured Kafer equipment or weapons to their own use. Their success depends on the use to which they are attempting to put the equipment, as well as the cleverness and the determination of the characters.

In most instances, the referee should use discretion in permitting success in such attempts. Some general guidelines are provided below:

- Kafer equipment designed to be worn (thermal imagers, environmental suits, harnesses) will not fit humans. However, it may provide material for cannibalization (wires from imaging goggles, straps from a harness). Thermal imagers reproduce images at wavelengths uncomfortable for human vision and could easily damage human eyes if exposed to a bright light source.
- Kafer equipment is extremely rugged and strongly made. Attempts to pry open panels or dismantle circuitry boxes will require cutting tools. Attempts to use strength will nearly always fail. (The devices are built to withstand the strength of the Kafers using them, which is far greater than most humans possess!)
- Kafer electronics are not compatible with human electronics. Thus, circuits from a captured Kafer radio cannot be used to repair a damaged human radio. Kafer electronics can be scavenged for less direct purposes, however (heavy wire for use as a tool, plastic to be melted and shaped to other purposes, etc.).
- Kafer mechanical items will not directly fit human machines, but can often be adapted. (Screws will not fit but could be used as nails; conduit or tubing will not fit into human plumbing but could be fixed to mismatched pipes using putty.)
- Kafer vehicles are simple to operate. Their controls consist of a starter button, a steering bar, a brake handle, and a power lever. Characters unfamiliar with Kafer vehicles may spend some time worrying over whether the bright blue button is the starter switch... or a self-destruct booby trap. A mishap during attempts to start a Kafer vehicle will generally result in a failure to start it. Once started, a few moments of trial-and-error experimentation will allow the human driver to learn how to operate it. One note: Since Kafers are larger than humans, humans attempting to drive Kafer vehicles will find the seats uncomfortable and awkwardly placed. The referee may wish to modify attempts to control the vehicle with this disadvantage in mind.
- Kafer weapons are larger and heavier, and firearms possess a far more powerful kick than equivalent human weapons. Characters who attempt to fire them without previous experience could easily hurt themselves: Kafer firearms have a much greater recoil than expected, and energy weapons have surfaces which can become quite hot during operation.

## KAFER SHIPS

Human and Kafer warships have clashed several times, notably in two major battles in the Eta Bootis System, and at Arcturus. Other possible clashes have been reported at the red dwarf system of DM+ 17 2611 and at Beta Canum, although these incidents have not been confirmed.

The following ships and devices have been observed and classified by various human branches of military intelligence. The data below represent what human military characters will know about them. They are discussed in more detail (for the use of the referee) beginning on page 66.

**Note on Intelligence:** No large Kafer warship has ever been taken completely intact. All have suffered battle damage to a greater or lesser degree, which makes a full assessment of their component parts and capabilities impossible to accomplish. Humanity's frustratingly incomplete knowledge of Kafer battleships comes from after-action reports and interviews, spy/recon drones, and the few fragmentary and nonfunctional remains that have fallen into eager human hands.

### ALPHA-CLASS BATTLESHIP

*Warp Efficiency:* 1.8 *Power Plant:* Unknown *Fuel:* Unknown *Range:* Unknown, but at least equal to human technology *Mass:* 70,000 tons *Cargo Capacity:* Unknown *Comfort:* Unknown *Total Life Support:* Unknown

### IMPROVED ALPHA-CLASS BATTLESHIP

The dubious honor of being the first Terran ships to encounter vessels of the *Improved Alpha* class went to an American CruDiv (Cruiser Division) off Arcturus in 2299. Despite the claims of the German popular press, the vessel engaged and destroyed by the *Bismarck* at Laodemon was definitely not an *Improved Alpha* (the *Bismarck's* commander has never made any such claim, to his credit). Knowledge of the vessel largely comes from the American encounter and subsequent spy drone missions.

*Warp Efficiency:* 1.8 *Power Plant:* Unknown *Fuel:* Unknown *Range:* Unknown *Mass:* 70,000 tons *Cargo Capacity:* Unknown *Comfort:* Unknown *Total Life Support:* Unknown

### BETA-CLASS BATTLESHIP

*Warp Efficiency:* 2.8 *Power Plant:* Unknown *Fuel:* Unknown *Range:* Unknown *Mass:* 47,000 tons *Cargo Capacity:* Unknown *Comfort:* Unknown *Total Life Support:* Unknown

### DELTA-CLASS BATTLESHIP

*Warp Efficiency:* 2.28 *Power Plant:* Unknown *Fuel:* Unknown *Range:* Unknown *Mass:* 74,000 tons *Cargo Capacity:* Unknown *Comfort:* Unknown *Total Life Support:* Unknown

### FOXTROT-CLASS FIGHTER

*Warp Efficiency:* 3.168 *Power Plant:* MHD plant of unknown megawattage *Fuel:* 30 tons *Range:* Unknown *Mass:* 180 tons *Cargo Capacity:* None *Comfort:* Unlivable by human standards *Total Life Support:* 3 Kafers

### GOLF-CLASS FIGHTER

*Warp Efficiency:* 3.28 *Power Plant:* MHD plant of unknown megawattage *Fuel:* 25 tons *Range:* Unknown *Mass:* 230 tons *Cargo Capacity:* None *Comfort:* Unlivable by human standards *Total Life Support:* 3 Kafers

### KAFER WHISKEY-CLASS MISSILE

*Movement:* 5 *Radiated Signature:* 1 *Radial Reflected Signature:* 1 *Lateral Reflected Signature:* 1 *Radial Target Profile:* - 4 *Lateral Target Profile:* - 3 *Hull Hits:* 1/1/1 *Power Plant Hits:* 2/1 *Armament:* One 7x2 detonation laser *Active Sensors:* None *Passive Sensors:* None

### KAFER X-RAY-CLASS MISSILE

*Movement:* 6 *Radiated Signature:* 0 *Radial Reflected Signature:* 1 *Lateral Reflected Signature:* 1 *Radial Target Profile:* - 4 *Lateral Target Profile:* - 4 *Hull Hits:* 1/1/1 *Power Plant Hits:* 2/1 *Armament:* None 14x2 detonation laser *Active Sensors:* None *Passive Sensors:* 2

---

*No large Kafer warship has ever been taken completely intact. All have suffered battle damage to a greater or lesser degree, which makes a full assessment of their component parts and capabilities impossible to accomplish.*

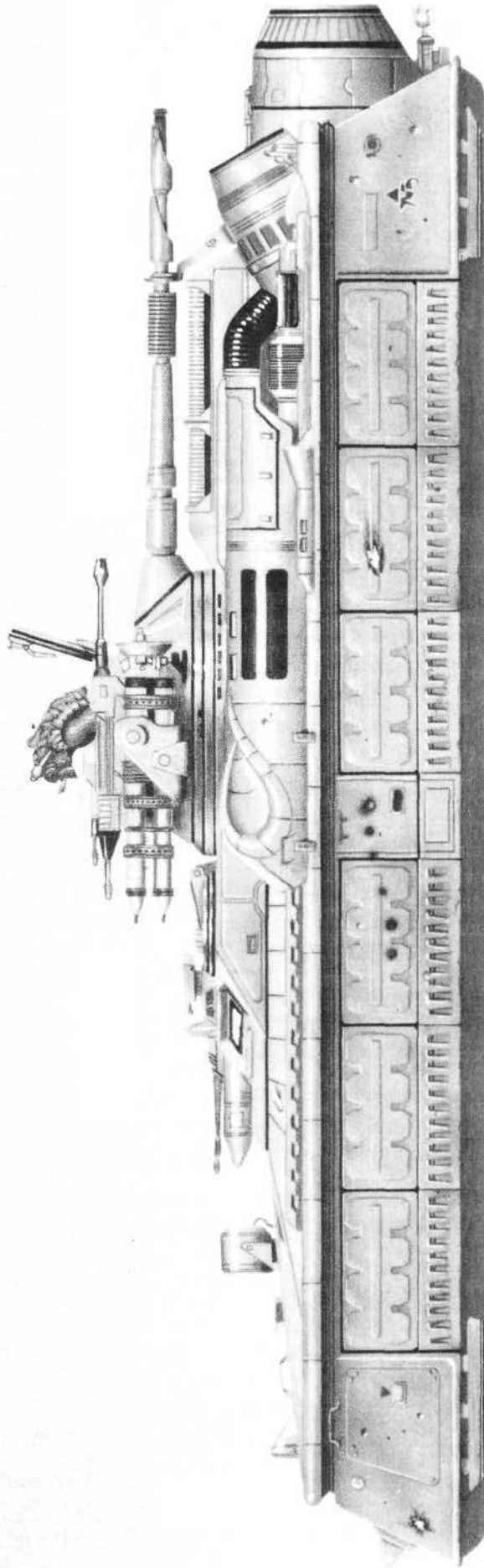
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## "Deathsled" (Kafer: *Shah uch\*k*)

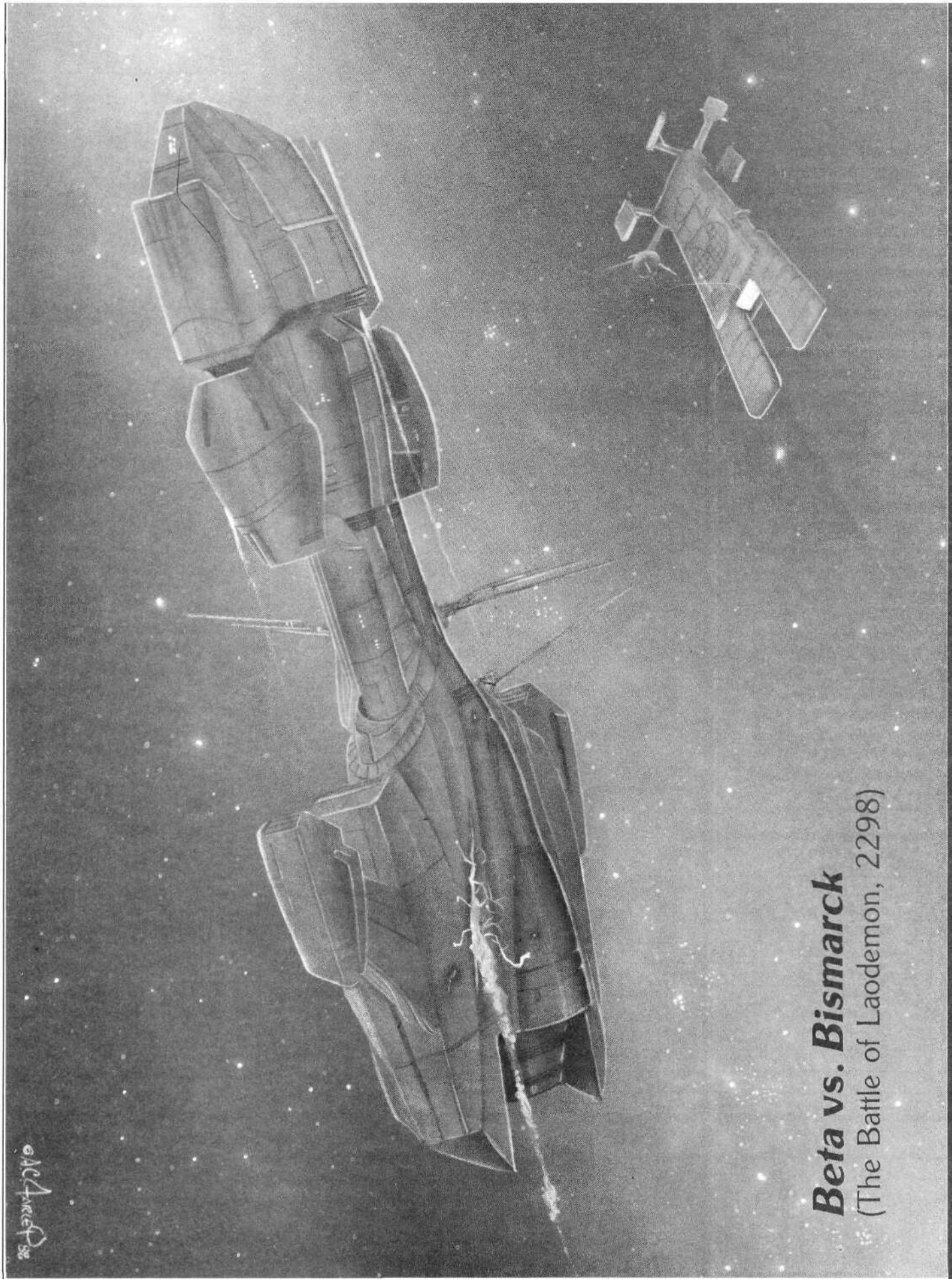
Large, heavily armed hovertank. It is equipped with a turret-mounted mass-driver cannon with a rear-facing missile launcher, and a commander's cupola with a "Beamer" facing one direction, and an autocannon and machinegun facing in the other. The vehicle does not have jump-jet capability above approximately two meters. Captured vehicles indicate four crew positions: a driver, commander, gunner, and a fourth crew position known to humans as "the kibitzer."

*Type:* Hovertank *Crew:* Commander, gunner, driver, kibitzer *Weight:* 23,000 kg *Armor:* Plenum: 35 *Front:* 120 *All Other Faces:* 40 *Armament:* 10.13cm mass-driver gun in turret *Aimed Fire Range:* 2000 meters *Range Finder:* + 1 *ROF:* 3 *Rounds Carried:* 62 *DP:* 110. Twin anti-vehicle missile launcher mounted externally on turret side. Missiles appear roughly equivalent to French Manta-1. No reloads carried. One 40-megawatt plasma gun mounted in commander's cupola, with one 22.2mm autocannon (similar in all respects to Type-12 Autocannon) and one 12.1mm MG (similar to Type-12 Autocannon) and one 12.1mm MG (similar to DunArmCo Mini-12). *Signature:* 8 *Evasion:* 4 *Sensor Range:* 8 km *Cargo:* 1000 kg *Max Speed:* 170 kph *Movement:* 320 meters *Off-Road Mobility:* Full *Power Plant:* 3MW MHD turbine *Fuel Capacity:* 700 kg *Fuel Consumption:* 100 kg/hr *Endurance:* 1 hours



© 1992



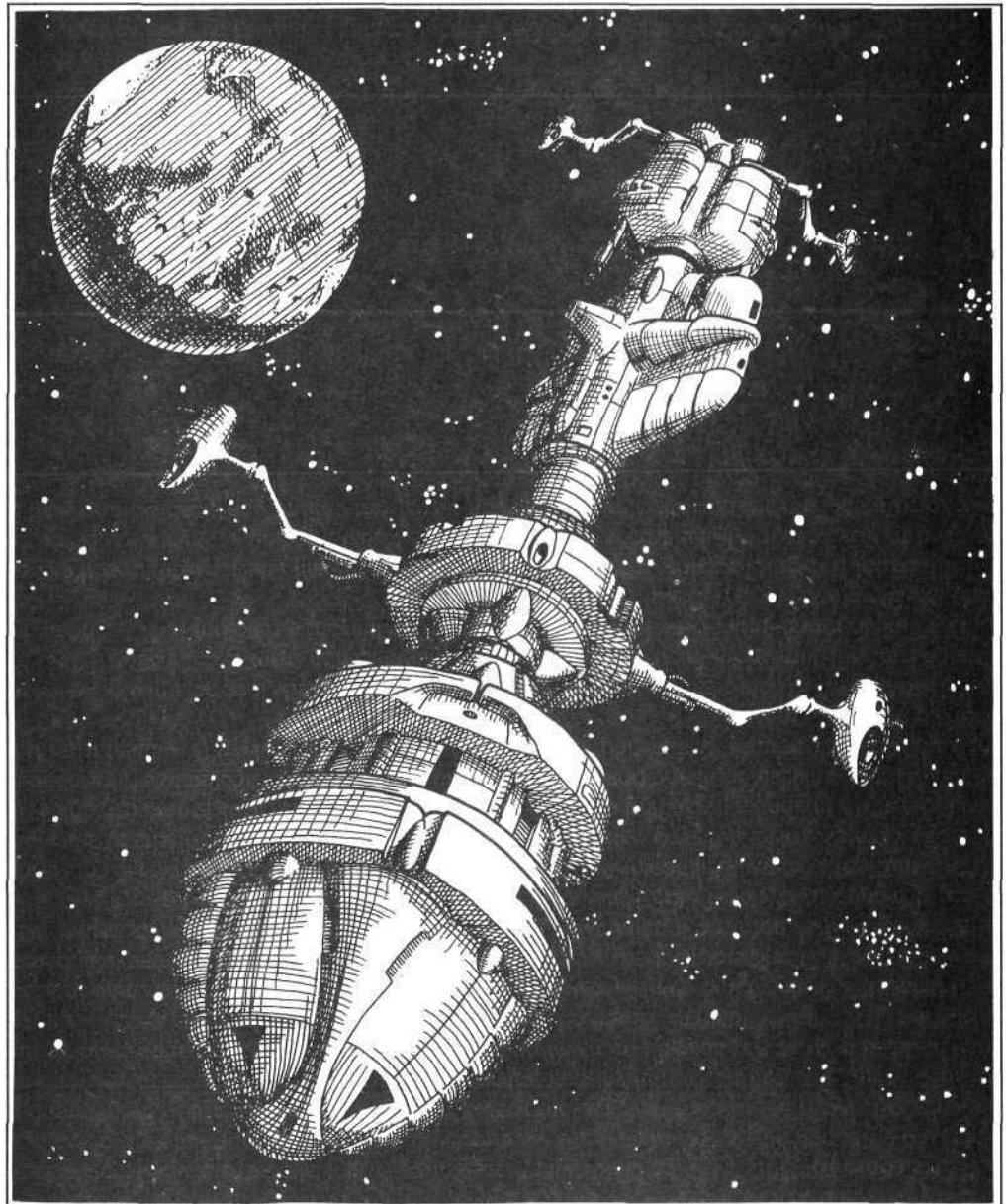


**Beta vs. Bismarck**  
(The Battle of Laodemon, 2298)

*Note: The information in this sidebar, the entry to the right, and the entries on the next few pages, represent what a human naval officer specializing in Kafer intelligence will know about the Kafer vessel in question. The details given earlier are what non-intel specialist naval characters might be expected to have acquired during the normal course of their duties. Whether or not other characters have any of this knowledge is up to the referee.*

### **PERFORMANCE CHARACTERISTICS**

Warp Efficiency: 1.8  
 Power Plant: *Fusion plant of unknown size*  
 Fuel: *Unknown*  
 Range: *Unknown, but believed to be in excess of 7.1*  
 Mass: 70,000 tons  
 Cargo Capacity: *Unknown*  
 Comfort: *Uninhabitable by human standards*  
 Total Life Support: 360 +  
 Ordnance Carried: *Up to 30 Whiskey-class missiles*  
 Price: *Unavailable*



### **Kafer Improved Alpha-class Battleship**

*Original Date of Design:* Unknown.

*First Example Laid Down:* Unknown.

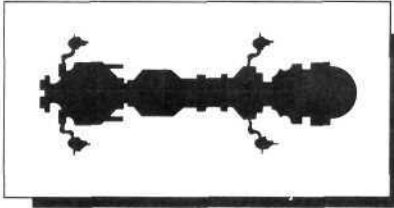
*First Example Completed:* Unknown.

*Fleets of Service:* Improved Alpha-class vessels are in service with the forces of the Kafer Suzerain known as Triumphant Destiny. Information on other forces is not available at this time.

No intact example of an *Improved Alpha* class has been taken, and it is not known with accuracy how this type of vessel differs from the normal *Alpha* class, except for improved protective screens. The after-action report of the USS *Jefferson* presents evidence that the gravitational and deep system scanners of *Improved Alpha*-class vessels are no less effective than equivalent human models. The question of whether or not *Improved Alpha*-class vessels carry ship's troops must await the capture of a completely intact example.

Crew: Bridge: 72 estimated Tactical Action Center: 72 estimated Engineering: 120 estimated Ship's Troops: Unknown Medical: Unknown

# Ship Status Sheet



## Alpha

Ship Name

## Improved Battleship

Ship Type

## Kafer

## Owning Nation or World

## Movement

4

Radial  
Reflected

11

### Radial Profile

+2

## Screens

9

Lateral  
Reflected

15

## Lateral Profile

+ 4

Radiated  
Signature

7

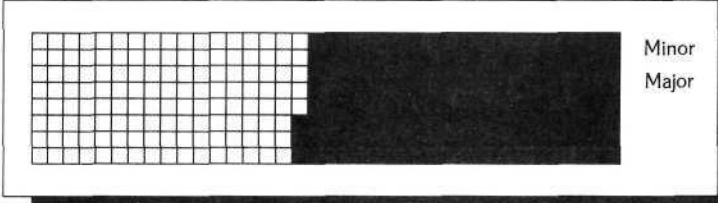
## Targeting Computer

+3

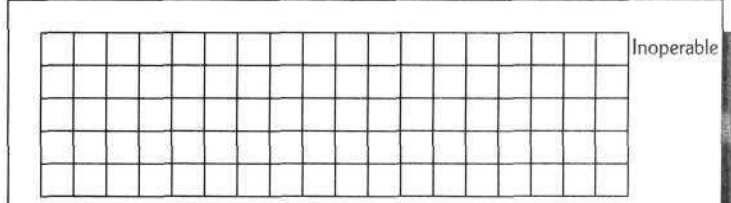
## Armor

9

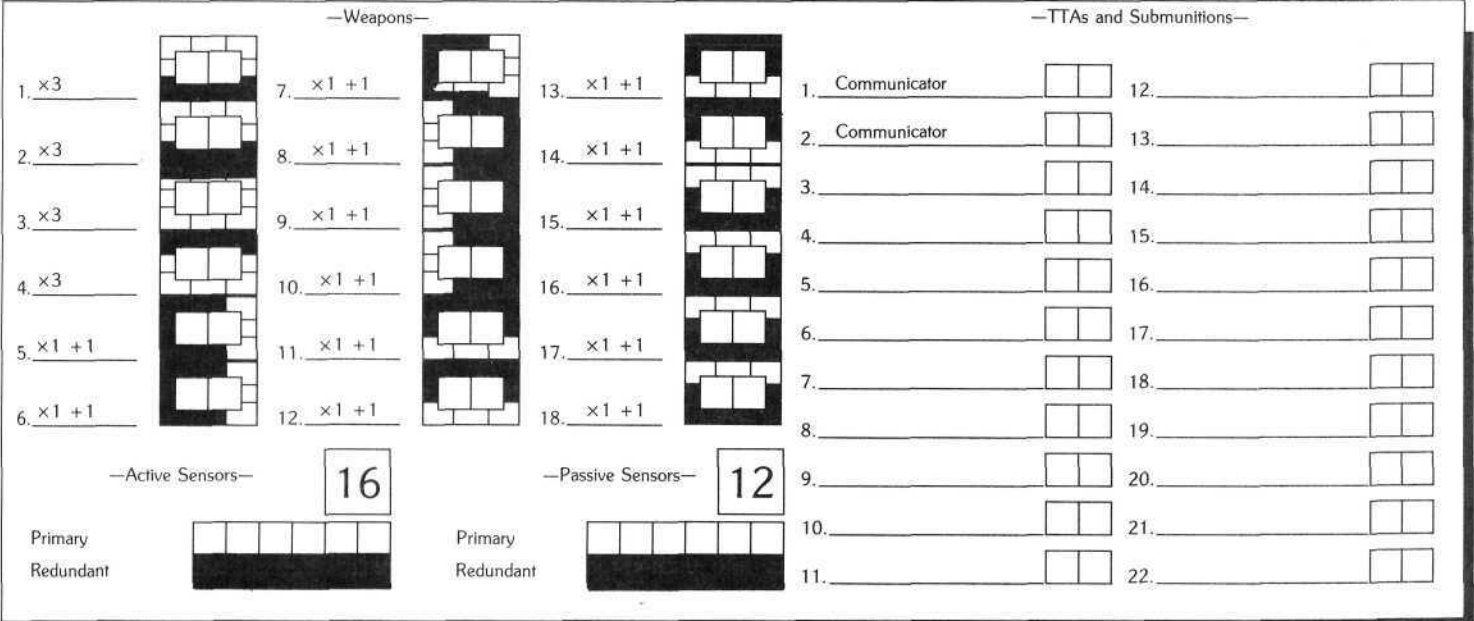
## Hull Hits



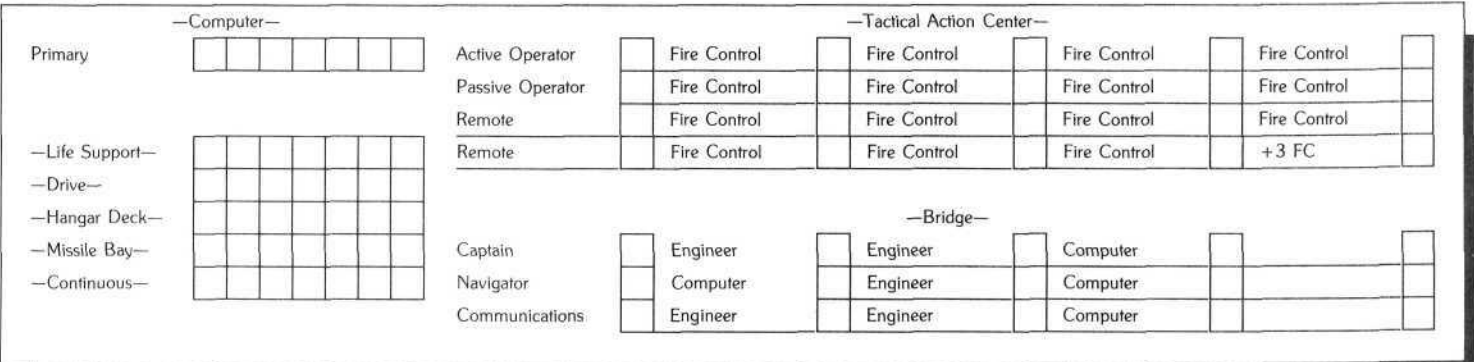
## Power Plant Hits



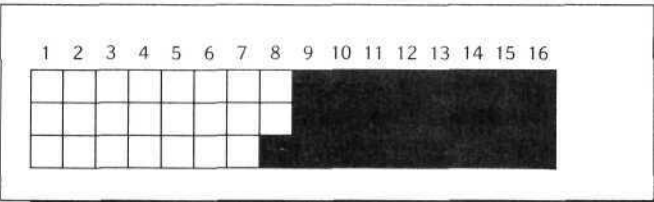
### Surface Fixture Hits



## Critical Hits

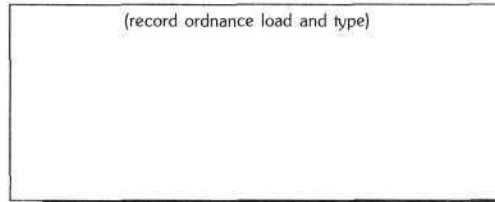


## Damage Control



Ordinance

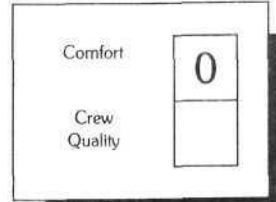
(record ordnance load and type)



## Crew

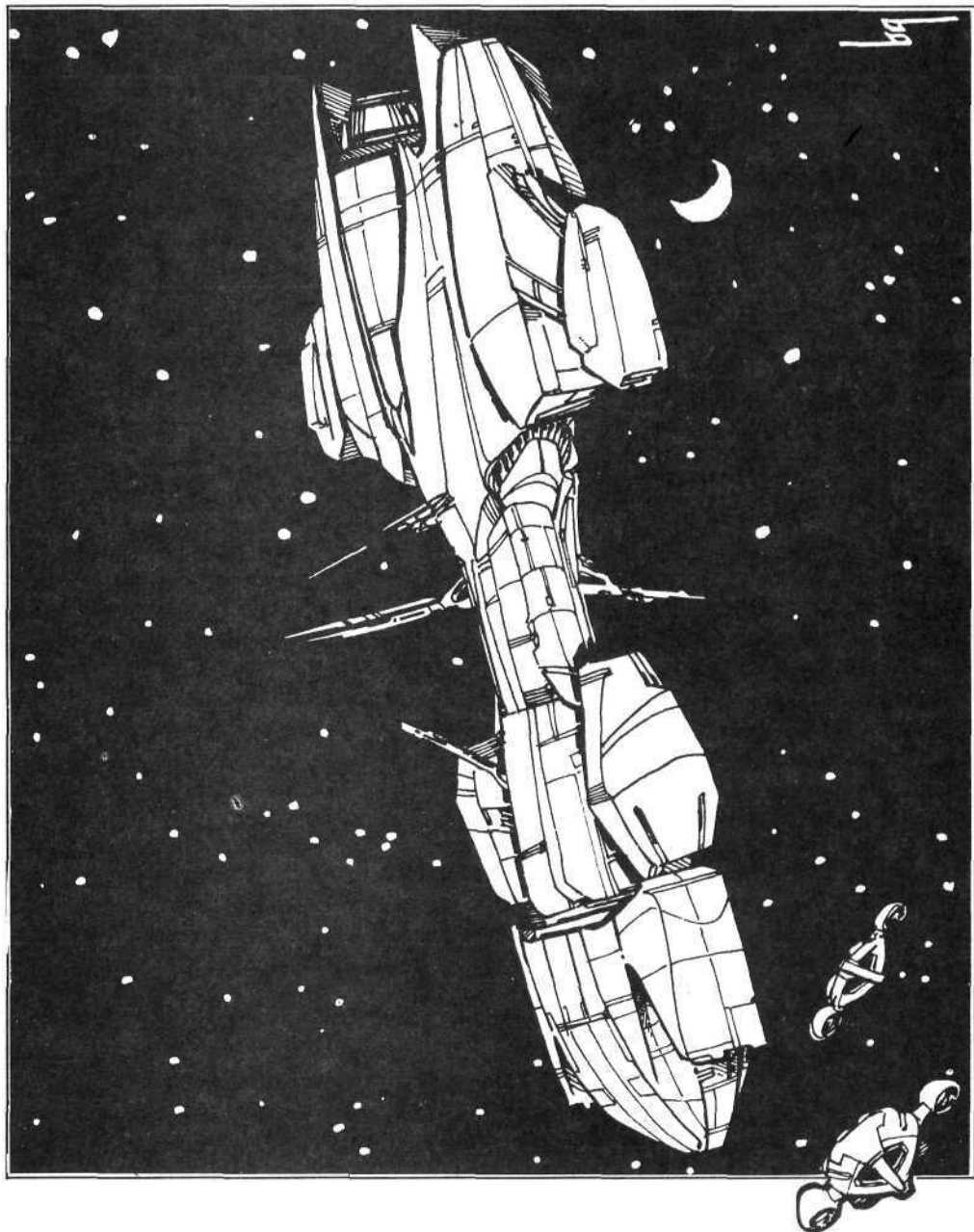
## Comfort

O

Crew  
Quality

## PERFORMANCE CHARACTERISTICS

Warp Efficiency: 2.8  
Power Plant: 200 +MW,  
Fuel: *Unknown* Range: *Un-  
known* Mass: 47,000 tons  
Cargo Capacity: *Unknown*  
Comfort: *Unknown* Total  
Life Support: 360+ Ord-  
nance Carried: Up to 20  
*Whiskey-class* missiles Price:  
*Unavailable*



### Kafer Beta-class Battleship

*Original Date of Design:* Unknown.

*First Example Laid Down:* Unknown.

*First Example Completed:* Unknown.

*Fleets of Service:* *Betas* are believed to be in service with all suzerains of the Kafer Associative.

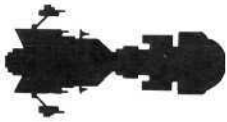
The Beta-class battleship is the most commonly encountered large Kafer warship (so far). *Betas* have been present at every major engagement of the war, beginning in 2298 when a squadron of Beta-class vessels destroyed the French 2nd Cruiser squadron (*DC-2*) in the Eta Bootis system.

Only two examples of a *Beta-class* vessel have been captured (at the Second Battle of Tithonus, 1 July 2298), and both of these had battle damage so severe as to prevent detailed study of the bridge. Beta-class vessels have sufficient crew space for 420 individuals, and it is believed that 120 of these are ship's troops.

**Crew:** *Bridge:* 60 estimated *Tactical Action Center:* 72 estimated *Engineering:* 120 estimated  
*Ship's Troops:* 120 estimated *Medical:* Unknown



# Ship Status Sheet



## Beta

Ship Name

## Battlecruiser

Ship Type

## Kafer

Owning Nation or World

## Movement

6

Radial  
Reflected

10

Radial  
Profile

+ 2

## Screens

6

Lateral  
Reflected

13

### Lateral Profile

+ 3

Radiated  
Signature

7

## Targeting Computer

 $+2$ 

## Armor


7 |

## Hull Hits

[illegible]

Minor  
Major

## Power Plant Hits



Inoperable

## Surface Fixture Hits

—Weapons—

1.  $\times 4$

2.  $\times 4$

3.  $\times 4$

4.  $\times 4$

5.  $\times 1 + 1$

6.  $\times 1 + 1$

7.  $\times 1 + 1$

8.  $\times 1 + 1$

9.  $\times 1 + 1$

10.  $\times 1 + 1$

11. \_\_\_\_\_

12. \_\_\_\_\_

—TTAs and Submunitions—

1. Communicator

2. Communicator

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_

11. \_\_\_\_\_

12. \_\_\_\_\_

13. \_\_\_\_\_

14. \_\_\_\_\_

15. \_\_\_\_\_

16. \_\_\_\_\_

17. \_\_\_\_\_

18. \_\_\_\_\_

19. \_\_\_\_\_

20. \_\_\_\_\_

21. \_\_\_\_\_

22. \_\_\_\_\_

—Active Sensors—

Primary

Redundant

16

—Passive Sensors—

Primary

Redundant

8

## Critical Hits

Diagram illustrating the layout of the upper decks of the USS Zumwalt (DDG 1000). The ship is divided into three main sections: the bow (left), the midship (center), and the stern (right).

**Bow Section:**

- Life Support
- Drive
- Hangar Deck
- Missile Bay
- Continuous

**Midship Section:**

- Computer
- Tactical Action Center
- Bridge

**Stern Section:**

- Captain
- Navigator
- Communications

## Damage Control

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Ordnance

(record ordnance load and type)

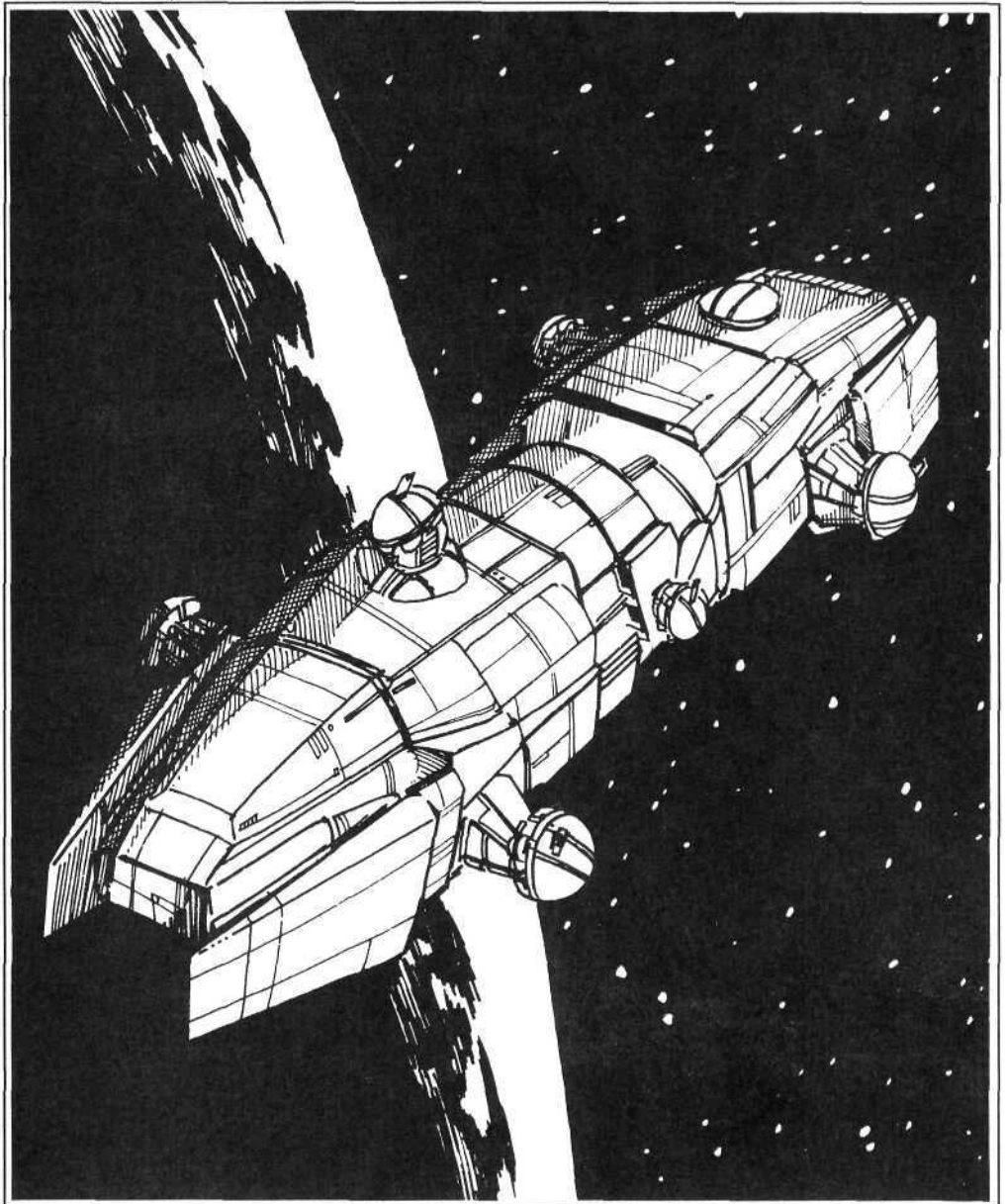
## Crew®

Comfort	0
Crew Quality	



## PERFORMANCE CHARACTERISTICS

Warp Efficiency: 2.28  
Power Plant: *Unknown* Fuel:  
*Unknown* Range: *Unknown*  
Mass: 74,000 tons Cargo  
Capacity: *Unknown* Com-  
fort: *Unknown* Total Life  
Support: *Unknown* Ord-  
nance Carried: Up to 36  
*Whiskey-class or similar mis-*  
*siles* Vehicles: *One or more*  
*fighters of unknown type*  
Price: *Unavailable*



### **Kafer Delta-class Battleship**

*Original Date of Design:* Unknown.

*First Example Laid Down:* Unknown.

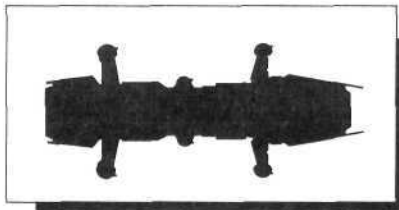
*First Example Completed:* Unknown.

*Fleets of Service:* Delta-class vessels are known to be in service with the forces of the Kafer Suzerain known as Triumphant Destiny. Information on other forces is not available at this time.

Since no vessels of the Delta class have been captured, the internal details have not yet come to light. Sensor scans by drone probes have revealed certain external details, and intercepted Kafer transmissions indicate the possibility that one or more fighters of unknown type are carried aboard at least one example. A force of 120 ship's troops is believed to be standard, although in keeping with known Kafer practice, this probably varies from squadron to squadron according to the commander's preferences and individual mission requirements.

**Crew:** Bridge: 30 estimated *Tactical Action Center:* 15 estimated *Engineering:* 25 estimated *Ship's Troops:* 120 estimated *Medical:* Unknown

# Ship Status Sheet



**Delta**

Ship Name

**Battleship**

Ship Type

**Kafer**

Owning Nation or World

Movement

5

Screens

9

Radiated  
Signature

7

Radial  
Reflected

11

Lateral  
Reflected

15

Targeting  
Computer

+3

Radial  
Profile

+2

Lateral  
Profile

+4

Armor

8

Hull Hits

Minor	Major
-------	-------

Power Plant Hits

Inoperable
------------

Surface Fixture Hits

—Weapons—						—TTAs and Submunitions—																																												
1. $\times 3$	7. $\times 2$	13. $\times 2$	1. Communicator	12.		2. $\times 3$	8. $\times 2$	14. $\times 2$	2. Communicator	13.		3. $\times 3$	9. $\times 2$	15. $\times 1+1$	3.	14.		4. $\times 3$	10. $\times 2$	16. $\times 1+1$	4.	15.		5. $\times 3$	11. $\times 2$	17. $\times 1+1$	5.	16.		6. $\times 3$	12. $\times 2$	18. $\times 1+1$	6.	17.		7.	18.		8.	19.		9.	20.		10.	21.		11.	22.	
—Active Sensors—						—Passive Sensors—																																												
Primary						Primary																																												
Redundant						Redundant																																												

Critical Hits

—Computer—		—Tactical Action Center—	
Primary		Active Operator	
		Passive Operator	
		Remote	
		Remote	
—Life Support—		—Bridge—	
—Drive—		Captain	
—Hangar Deck—		Navigator	
—Missile Bay—		Communications	
—Continuous—		Engineer	
		Computer	
		Engineer	
		Computer	
		Engineer	
		Computer	

Damage Control

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Ordnance

(record ordnance load and type)

Crew

Comfort	0
Crew Quality	

# Kafer Space

This chapter lists the important star systems lying within Kafer space. A map is included which plots these systems in relation to the Near Star Map of **2300 AD**.

The map of Kafer Space overlaps the **2300 AD** Near Star Map. A number of star systems (including such important ones as Arcturus, Eta Bootis, and the Kafer home system Gamma Serpentis) appear both on the **2300 AD** Near Star Map and on the Kafer Space Map presented here.

Each star system is presented in some detail, with extracts which describe the star and its most important planet or planets. In each case, only those worlds in each system which might be of particular interest to humans or Kafers are examined closely. However, referees should have no trouble fleshing out these descriptions to include other worlds of interest, in the course of **2300 AD** adventures in these systems.

## KAFER SPACE: AN OVERVIEW

The Kafer Sphere is located out-arm, coreward down the French Arm from that region of space explored and colonized by Terra. Roughly speaking, it is centered on the F6 V star Gamma Serpentis and extends roughly 20 light-years in all directions.

Not all stars within this volume of space have been colonized or even visited by the Kafers, of course. Because of the uneven spacings between stars, many systems well within the Kafer sphere are out of reach at their current level of stutterwarp technology, which appears to be quite close to the human level. In particular, the important human colonies at the end of the American Arm—Zeta Herculis and Botany Bay—lie only about 15 light-years from Gamma Serpentis itself, but there are no stars which offer interstellar "stepping stones" which would allow current stutterwarp technology to bridge the gap.

Kafer expansion has run afoul of human activities at the extreme end of the French Arm. The conflict began with a Kafer attack on a French research station at Arcturus and was followed by the attack and subsequent battles on and around Aurore (Eta Bootis IIc). Kafer activity has also been reported at several other systems in that general area, including DM + 17 2611 and possibly even Beta Canum. (This last report is at present unsubstantiated.)

**Special Note:** All data entries in this chapter are presented as though they are part of a current navigator's manual. The listings are divided into two separate sections.

The first sector presents listings, identified as extracts from *Le Manuel de la Navigation des Etoiles de Blanchard*, and are drawn from information already gathered by human expeditions to that system. All information in these listings *except* that specifically labeled *Restricted Data* is available to player characters researching that system, through queries of libraries, ship crews, or navigational atlases on Earth or elsewhere in human space. Information labeled *Restricted Data* generally refers to Kafer activity in that system which was unknown to the compilers of *Blanchard's Navigational Manual*, and should under no circumstances be revealed to the players until they have an opportunity to discover it for themselves.

The second section lists data for stars which have never been visited by human beings, though the star and planetary data is still presented as though it were part of a navigational handbook. None of this information should be revealed to the characters until they visit the system itself, or they have an opportunity to talk with other characters who have been there.

Several star systems in this latter section have not been visited by humans or Kafers, while others have been visited by Kafers only on an intermittent basis. The referee should feel free to draw upon these to develop his own adventures, whether his player group is involved in the Kafer war or not. Numerous adventures can be spun out for scouting expeditions to out-of-the-way stars which have, as yet, been unexplored.

Also, note that several normally deserted systems will become major centers of Kafer activity as the upcoming Kafer invasion of human space begins to develop. Notes describing the course of such buildups are provided for the referee's convenience in creating a suitable campaign background.

*The Kafer Sphere is located out-arm, coreward down the French Arm from that region of space explored and colonized by Terra. Roughly speaking, it is centered on the F6 V star Gamma Serpentis and extends roughly 20 light-years in all directions.*

## AN ATLAS OF KAFER SPACE: SECTION I-STARS IN HUMAN SPACE

This section deals with those star systems already known to humanity.

### HOCHBADEN (DM+27 2296 A & B)

The Hochbaden system consists of four worlds. Hochbaden, the inner planet (described below) is a frigid desert world lying just outside the limits of this system's habitable zone. Planet II is a rogue inclined 30 degrees to the ecliptic. Planet III is a gas giant, called Sturmvelt, while planet IV is an unremarkable frozen ball of ice and rock named Hoffman.

The worlds circle one of two K6 V stars in a double system. DM + 27 2296 A's companion star comes no closer to it than 10 au and is probably responsible for limiting the system to four worlds.

#### DM+ 27 2296 A

*Coordinates:* X: - 24.9 Y: - 12.6 Z: 14.3 *Type:* K6 V *Mass:*.72 *Luminosity:* .072 *Radius:* .556

**DM+ 27 2296 A-I, Hochbaden:** Hochbaden is the location of a Bavarian colony called *Kolonie Zwei* (Colony Two). Although the surface temperatures at the equator are within tolerable limits, the air is quite unbreathable, and all surface facilities are located under pressure domes or sealed underground. A space colony and orbital industrial center functions as an orbital adjunct to the surface installations. The colony was founded in 2231, principally as a scientific outpost. Today it supports both heavy industry and extensive farming. The total population is 4,127,050, approximately half of which live on the surface. Interface between surface and orbit is achieved by various types of rocket plane. Large fuel plants are necessary for processing both liquid hydrogen and liquid oxygen, however, since there is not enough oxygen in the atmosphere to support scramjet-type propulsion.

The planet is unremarkable in its features and planetography. Considerable scientific interest has been stirred up by the discovery of life along the north polar icecap. There is also some scientific controversy over the planet's history, centering on the fact that the atmosphere (though less than half a bar) is still remarkably thick for a world of this type. (By comparison, Mars—Sol IV—is similar to Hochbaden in almost all respects, but has an atmospheric pressure of only 6.1 millibar.)

*Notable Sites and Features:* Notable sites and features of Hochbaden include:

- *The Great Painted Desert:* Extending north from the main surface colony sites, the Painted Desert appears to be a brilliantly iridescent red, due to large quantities of iron oxide locked up in the soil.

- *Native Life:* Research outposts near the border of the north polar icecap have been established to study native Hochbadanian life. Considerable scientific controversy continues over whether the microbial forms discovered in this area were transplants from elsewhere (by meteor impact or from visits by ancient spacefarers) or whether they evolved on the planet during a hypothetical warm period earlier in the planet's history (which is suggested by the unexpected density of the atmosphere).

- *The Orbital Colony:* Hochbaden's advanced and efficient orbital facilities are proudly displayed to visitors of all nationalities as evidence of the colony's high level of technology and powerful local industry.

*Mean Orbital Radius:* .4 au *Orbital Period:* .349 year (127.5 days) *Rotational Period:* 15h 54m 56.89s *Equatorial Diameter:* 7158 km *Circumference:* 22,487.5 km *Mass:* (0.125 Earth) *Density:* 3.917 (.71 Earth) *Surface Gravity:* 390.3 cm/sec<sup>2</sup> (.398 G) *Escape Velocity:* 4.46 kps *Axial Inclination:* 26° 19' 36.6" *Mean Temperature (Equator):* - 10° C *Magnetic Field:* Less than  $5 \times 10^4$  gauss

*Atmosphere:* *Pressure at Mean Ground Level:* 337mm Hg or .45 bar *Partial Pressure O<sub>2</sub>:* Less than .0018 *Constituents:* CO<sub>2</sub>: 95.32% N<sub>2</sub>: 2.7 Ar: 1.6% O<sub>2</sub>: .4%

#### DM+27 2296 B

DM+ 27 2296 B has only two worlds, both cratered and airless, and, overall, relatively uninteresting.

*Coordinates:* X: - 24.9 Y: - 12.6 Z: 14.3 *Type:* K6 V *Mass:*.72 *Luminosity:* .072 *Radius:* .556

---

*Considerable scientific controversy continues over whether the microbial forms discovered in this area were transplants from elsewhere (by meteor impact or from visits by ancient spacefarers) or whether they evolved on the planet during a hypothetical warm period earlier in the planet's history (which is suggested by the unexpected density of the atmosphere).*

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*Eta Bootis continues to be the focus of desperate human resistance against the Kafers. While fighting continues on the surface of Aurore, the first moves in the Kafer invasion of human space have taken Hochbaden, next in line along the French Arm, isolating Eta Bootis from the rest of human space.*

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## ETA BOOTIS (A & B)

The Eta Bootis System consists of five gas giants orbiting the system's double primary in its outer zone. Eta Bootis A and B circle one another with an average separation of 1.425 au with an orbital period of 495 days. The stars are too close together to allow Earthlike worlds to orbit one star or the other, and too far apart for an Earthlike world to exist in a habitable zone circling both.

**Restricted Data:** Eta Bootis continues to be the focus of desperate human resistance against the Kafers. While fighting continues on the surface of Aurore, the first moves in the Kafer invasion of human space have taken Hochbaden, next in line along the French Arm, isolating Eta Bootis from the rest of human space. Fleet elements trapped at Eta Bootis have succeeded thus far in holding Kafer screening elements at bay, but the situation is deteriorating rapidly.

### Eta Bootis A, Muphrid

*Coordinates:* X: -26.8 Y: - 14.3 Z: 10.2 *Type:* GO IV *Mass:* 1.75 Sol *Luminosity:* 6.5 Sol *Radius:* 2.5 Sol

**Eta Bootis II, Tithonus:** The largest of the Eta Bootean planets is a small member of that class of objects known as "brown dwarfs." Over five times more massive than Jupiter (Sol V), Tithonus radiates far more heat than it receives from its sun due to gravitational contraction. It is not quite massive enough to trigger the thermonuclear reaction which would allow it to "turn on" and shine as a true star; thus, it is doomed to exist as a sullen, dull-glowing body lying halfway on the hierarchy of cosmic objects between the largest true planets and the smallest true stars.

The heat Tithonus gives off, however, is sufficient to create a narrow, habitable zone at a distance of 3.6 planetary diameters. Tithonus' third major satellite lies within the habitable zone and is massive enough to have retained an atmosphere during its early history. That satellite, Eta Bootis IIc, is the world which humans know as Aurore.

*Mean Orbital Radius:* 5.85 au *Orbital Period:* 9.47 years *Mass:*  $1.007 \times 10^{31}$  gms (5.3 x Jupiter or .005 Sol) *Equatorial Diameter:* 257,000 km (1.8 x Jupiter) *Rotational Period:* 5h 42m 12s *Surface Temperature:* 1120°K *Luminosity:* .00003 Sol

**Eta Bootis IIc, Aurore:** Aurore is the site of three human colonies—one Ukrainian, one French, and one independent. Because of its tidal lock with its brown dwarf primary, Aurore exhibits an unusual range of climactic conditions, with a temperate, habitable strip extending around a narrow band between the world's Hot Pole (facing Tithonus) and Cold Pole (facing away from Tithonus).

Principal industries include farming and mining. Mineral exports include several heavy metals, notably rhenium. Farming has been limited until recently by the fact that local biology is based on dextro (as opposed to levo) amino acids, which has meant that Terran plants and animals must be imported, and that even farmland must be prepared to receive Terran crops by the addition of small amounts of imported topsoil (complete with such vital ecological additives as nitrogen-fixing bacteria, nematodes, and earthworms) called *paydirt*.

The Eta Bootis System was invaded by a Kafer armada in 2298, and local human forces suffered a major defeat. Kafer troops were landed on the planet after a heavy orbital bombardment. Later in the year, a combined French-German space fleet returned to Eta Bootis and inflicted heavy casualties on the Kafer armada, forcing its withdrawal. Since that time, warfare has continued on the surface of Aurore against pockets of Kafer resistance. The fighting has been heavy, bloody, and bitter.

—Extract from *Le Manuel de la Navigation des Etoiles de Blancharde*, edition 2299.

*Of Special Interest:* L'Institute Extraterrestre de la Sorbonne d'Aurore, at La Cite d'Aurore, capital of the French colony, is the center for ongoing research into Kafer language, psychology, and technology. Vital work has been underway there since early in the war, including research into Kafer computer operating systems, and into the nature of a small linguistic computer of apparently alien design captured early in 2300. With the understanding that knowing one's enemy is the first step in learning how to overcome him, the work being done at La Cite d'Aurore must be considered vital to the human war effort.

*Notable Sites and Features:* Notable sites and features of Aurore include:

9 La Mer Ceindant "The Encircling Sea" which completely rings the planet between its hot and



cold hemispheres. The various human settlements are located along the landmass on the Tithonian side of the sea.

- *The Hot and Cold Poles:* The hemisphere facing Tithonus (Hot Pole) is known as the High Desert, a region of extreme altitude, low pressure, and high temperature. The Cold Pole is called La Glaciere, an icecap embracing half the planet, with low temperatures hovering around the freezing point of carbon dioxide.

- *High Tides and Tidemist:* Planetary libration under the massive pull of the superjovian Tithonus raises six-meter tides along the Tithonian shores of La Mer Ceindant. Certain planetographic features such as the chasm called La Gouffre (The Gulf) south of the French colony act as tidal bores, resulting in exceptionally violent tides over 100 meters high and travelling in excess of 150 kph. Incoming tides create thunder which is audible hundreds of kilometers away and deafening at close range. Spray thrown into the atmosphere during these times creates the wet fog known as "tidemist."

- *The Auroran Sky:* The sky as viewed from anywhere on the planet's surface is spectacular, aflame with aurorae and shooting stars. Tithonus is visible from everywhere on the Tithonian side of the sea: a vast, flattened sphere subtending an angle of 15 degrees—30 times the apparent diameter of earth's sun. Aurore's sun (*Notre Soleil*) appears half the size of Earth's sun from Earth but is somewhat brighter. Its red dwarf companion, *Rubis*, shows a barely perceptible disk about half of the time.

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*Tithonus radiates far more heat than it receives from its sun due to gravitational contraction. It is not quite massive enough to trigger the thermonuclear reaction which would allow it to "turn on" and shine as a true star; thus, it is doomed to exist as a sullen, dull-glowing body lying halfway on the hierarchy of cosmic objects between the largest true planets and the smallest true stars.*

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*Mean Orbital Radius:* 927,525 km *Orbital Period:* 2.537 days *Rotational Period:* 2.537 days  
*Equatorial Diameter:* 9450 km *Circumference:* 29,688.1 km *Mass:*  $2.27 \times 10^{27}$  gm (.38 Earth)  
*Density:* 6.07 gms/cm<sup>3</sup> (1.1 Earth) *Surface Gravity:* 728.6 cm/sec<sup>2</sup> (.743 G) *Escape Velocity:* 8.3 kps  
*Axial Inclination:* less than 1° *Orbital Eccentricity:* .02 *Temperature (Hot Pole):* 90°C. +  
*Temperature (Cold Pole):* -75° to -35°C. *Magnetic Field:* Greater than  $5.5 \times 10^3$  gauss tilted 8° to the pole

*Atmosphere:* *Pressure at Sea Level:* 545mm Hg or .73 bar *Partial Pressure O<sub>2</sub>:* 0.14 *Constituents:* N<sub>2</sub>: 78.58% O<sub>2</sub> 19.34% Ar: 1.23% CO<sub>2</sub> 305 ppm O<sub>3</sub> and SO<sub>2</sub>: 10 ppm *Other Constituents, including Ne, Kr, and NO<sub>2</sub>:* 1.5 ppm *Tidal Effect:* .02 *Tithonian Gravitational Field:* 129 Sol at 1 au

#### **Eta Bootis B, Rubis**

*Coordinates:* X: - 26.8 Y: - 14.3 Z: 10.2 *Type:* MO V *Mass:* .48 Sol *Luminosity:* .04 *Radius:* .54 Sol

#### **DM+18 2776**

DM+ 18 2776 possesses two planets and a dense asteroid belt. Planet I, named Wiseman, (described in detail below) is quite close to the optimum distance from its primary to support life. Planet II is a gas giant somewhat larger than Neptune (Sol VIII), with an extensive ice ring system and several planet-sized, airless moons, and is otherwise unremarkable.

**Restricted Data:** After their defeat at Eta Bootis, Kafer forces under the suzerain known as Triumphant Destiny arrived within this system and began building a major base. Under the guidance of Triumphant Destiny, the base has been cunningly hidden.

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*With the appearance of the Kafers, the Wiseman system may take on a far larger importance in tactical planning. Several naval officers at Aurore (notably Admiral Borodin) have noted that DM+ 18 2776 offers the Kafers a way to bypass Eta Bootis, allowing travel directly from Arcturus to Hochbaden with only the single stop.*

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The base was constructed on the surface of the inner gas giant satellite. The ice under the structure melted by channeling the output of a small nuclear reactor into the ice, and the ice allowed to reform over the base once it had submerged to the desired depth. The base is now submerged at a depth of 10 meters, with a one-meter-thick layer of ice shielding it from view.

The base is roughly the size of a large Kafer troop transport and has room and life support facilities for over 1000 Kafers (with considerably more crowding than humans would tolerate). It includes a large fuel cracking station which has been producing and stockpiling oxygen and hydrogen from the surrounding waters of the ice-roofed sea. The stockpiles are stored in inflatable bladders, also hidden beneath the ice.

Access is through several hollow conduits extending to the surface, and by a large entry port with camouflaged hangar doors on the surface of the ice. The hangar bay beneath the sliding doors is large enough to accommodate six *Foxtrot-class* Kafer fighters or one fuel shuttle at a time. Also open to the surface are missile launchers mounting batteries of Whiskey-class missiles.

Kafer plans are to use the base as a fueling and staging base for the first major thrust into human space towards Hochbaden, bypassing the human fleet at Eta Bootis. Large numbers of fighters can be serviced here in relays, and the base can serve as a rallying point and repair depot for fighters forced out of the fight at Hochbaden. Capital ships can refuel from reserves brought to orbit by a surface-to-orbit shuttle.

The base is well masked and powered by MHD plants, which show no signature from under the ice. The base personnel are under strict orders to remain hidden should human craft venture in-system.

The single difficulty lies in the psychological stress which the base personnel suffer during long periods of enforced inactivity. (See "Fun with Kafers" at the end of this Sourcebook.)

*Coordinates: X: -28.2 Y: -13.9 Z: 10.4 Type: M1 Mass: .45 Sol Luminosity: .011 Sol Radius: .502 Sol*

**DM+ 18 2776-1, Wiseman:** Like Aurore, Wiseman is tidally locked with its primary and always maintains the same face towards its sun. Early in the planet's history, outgassing produced a much thicker atmosphere than currently exists. This primordial atmosphere gave Wiseman a much higher surface temperature, but enabled liquid water to exist over the entire surface. During this period, plant life evolved which modified the atmosphere and produced large quantities of oxygen. Numerous genera of animal life evolved as well. Evolution appears to have proceeded at an extremely rapid rate, due to the close proximity of the parent star and the subsequent high background levels of ionizing radiation.

Over a period of time which is believed to have exceeded five billion years, Wiseman has lost much of its atmosphere and nearly all of its water. It is now classified as a desert planet, though much of the dark side is still covered by the glacial remnants of the ancient sea.

The current atmosphere is similar to Earth's, albeit at a much lower pressure, but is not breathable by humans. The CO<sub>2</sub> content is far higher than humans can tolerate except briefly. Like most tide-locked worlds, libration (a back-and-forth swaying motion in its orbit) causes the sun to rise and set at the horizon along a narrow belt encircling the planet, across both poles between the Darkside and Dayside. Temperatures there are tolerable, averaging -0 degrees to + 10 degrees C. Protective garments are not necessary (except during periodic storms when wind-blown sand can be dangerous), but special breathing masks are (to absorb excess CO<sub>2</sub>).

Wiseman was named in 2228 by the first navigator of an early ESA survey, evidently after himself. With the possible exception of unregistered Frontier explorers and periodic military surveys from Aurore since 2298, it has not been visited and is of little commercial interest.

The principal scientific importance of Wiseman lies in its fossils, which may give clues to the nature of the evolution of planetary ecosystems, and in its botanical life forms, most of which compete with one another for water. Plants similar to Terran mosses and lichens grow in profusion in the twilight zone along the icecap, using stored stellar radiation to melt ice for water, and internally-produced acids to dissolve needed minerals from rock. Some life forms move quite fast, and at least one expedition member from the first survey was lost when a highly motile and aggressive lichen ate through the leg of his environmental suit.

With the appearance of the Kafers, the Wiseman system may take on a far larger importance in tactical planning. Several naval officers at Aurore (notably Admiral Borodin) have noted that DM+ 18 2776 offers the Kafers a way to bypass Eta Bootis, allowing travel directly from Arcturus to Hochbaden with only the single stop.

As of this date the situation has not been acknowledged by any of the naval defense commands at Earth, and security of the system has been tacitly left in the hands of naval commanders at Aurore.

*Planet I—Notable Sites and Features:* Notable features of planet I include:

- *Ice Sea of Darkside:* This body is the remains of an ancient sea now frozen. Warming brought on by flare storms (see below) raises local temperatures enough to allow frozen CO<sub>2</sub> to sublime, causing thick, dry ice fogs.

- *The Local Sun:* This appears 2.1 times as large as Earth's sun appears from Earth. Libration causes the sun to *appear* to rise and fall above the horizon along the equatorial reaches of the planet's twilight zone.

- *The Aurorae:* Triggered by the intense ionizing radiation of the nearby sun, trapped by the planet's powerful magnetic fields and interacting with the atmosphere above the poles, the aurorae above Wiseman's surface are always quite bright and are visible even during "day" hours within the twilight zone.

- *Life Forms:* The unusual native forms of life—mostly analogues of Terran mosses and lichens—have adopted unusual biochemistries to survive an inhospitable environment. Of particular value are fossilized remains of three-billion-year-old life forms native to an earlier phase of the planet's evolution.

- *Storms:* Flare Storms are periodic and frequent windstorms caused by flare activity occurring in the star. Wind velocity (blowing from Dayside to Darkside) exceeds 200 kph. Air pressure is low enough, however, that the overall weather effects are not much worse than a Terran hurricane.

*Mean Orbital Radius:* .24 au *Period:* .170 years (62.0 days) *Rotational Period:* 62.0 days (tidally locked with primary) *Equatorial Diameter:* 10759 kilometers (.84 Earth) *Circumference:* Mass:  $3.3 \times 10^{27}$  gms (.55 Earth) *Density:* 5.03 (.92 Earth) *Surface Gravity:* 754 cm/sec<sup>2</sup> (.77 G) *Escape Velocity:* 8.7 kps *Axial Inclination:* less than 1° *Orbital Eccentricity:* 0.0 *Temperature (substellar):* 50°C+ *Temperature (antistellar):* -100°C and below *Magnetic Field:* Greater than  $4 \times 10^{-2}$  gauss tilted less than 2° to the pole

*Atmosphere:* *Pressure at Mean Ground Level:* 435mm Hg, or .58 bar *Partial Pressure O<sub>2</sub>:* .14 *Constituents:* N<sub>2</sub>: 65.23% O<sub>2</sub>: 24.54% CO<sub>2</sub>: 6.4% Ar: 3.23% *Other Constituents, including Ne, Kr, CO, and Other Trace Gases:* Less than 500 ppm each

**DM +18 2776-11:** DM + 18 2776-II is a typical gas giant similar in most respects to Jupiter (Sol V). It possesses an extensive family of satellites, including three major satellites with diameters greater than 1000 km. The inner satellite is of note and is described below.

*Mean Orbital Radius:* 3.8 au *Period:* 10.7 years *Rotational Period:* 12h 35m 27s *Equatorial Diameter:* 142,796 km *Mass:*  $2 \times 10^{30}$  gm (339 Earth) *Density:* 1.33 gm/cm<sup>3</sup> (.24 earth) *Satellites:* 13

*Atmosphere:* Predominantly H<sub>2</sub> and He, with smaller amounts of CH<sub>4</sub>, NH<sub>3</sub>, C<sub>2</sub>H<sub>6</sub>, and other gases

**DM + 18 2776-IIa:** The satellite catalogued as DM + 18 2776-IIa is similar to the Jovian satellite Callisto in Earth's solar system. Perturbations in its orbit generated by the two outer major moons of the gas giant's satellite system serve to create a continual tidal flexing of the satellite, which is largely made up of water ice. This flexing heats the satellite's interior, creating a 1 000-kilometer-deep ocean which covers the entire world, above a core of mingled rock and ice. The surface of the ocean is frozen solid, creating a cap which prevents the water from boiling away into vacuum. At some points, where tidal stresses have thinned the ice crust, the ice is less than one meter thick.

It has been suggested that this satellite could be useful as a fueling station, since liquid water or ice could easily be broken into oxygen and hydrogen. Plans for investigating the site as a potential fuel station have been suspended for the moment, though, due to the outbreak of war with the Kafers.

*Planet IIa—Notable Sites and Features:* Notable features of planet IIa include:

- *The Ice Sea:* The moon possesses a deep (1000 km deep) ocean of liquid water, completely frozen over by ice varying from 10 kilometers in thickness to less than one meter.

*Mean Orbital Radius:* 670,908 km *Period of Rotation and Revolution:* 3d 12h 27m 17s *Equatorial Diameter:* 3427 km *Mass:*  $6.5 \times 10^{25}$  gm (.011 Earth) *Density:* 3.1 gm/cm<sup>3</sup> *Surface Gravity:* 148 cm/sec<sup>2</sup> (.15 G) *Escape Velocity:* 1.7 kps *Atmosphere:* None

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*The unusual native forms of life—mostly analogues of Terran mosses and lichens—have adopted unusual biochemistries to survive an inhospitable environment. Of particular value are fossilized remains of three-billion-year-old life forms native to an earlier phase of the planet's evolution.*

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## KLAXUN

Many players will remember DM +17 2611, the site of the GDW adventure module Energy Curve. Each referee should adjust the description given here to reflect the outcome of his own Energy Curve adventure. The name "Klaxun," for example, is described as a human term based on the sound the natives make while eating—and the players are encouraged to make up their own name for the creatures, since the players are presumed to be the first humans to visit the world.

Referees who have not taken their player group to this system may wish to do so as part of a continuing campaign on the fringes of Kafer space. Referees who have used DM+17 2611 as the location of an earlier adventure may consider a return to that world and its enigmatic inhabitants as part of the unfolding drama of the Kafer War. Of course, referees who do not own Energy Curve can simply use the data presented here in the event their players show up in this system.

## DM+ 17 2611 (A & B)

DM + 17 261 1 is a double star with a mean separation of 10 au. The near presence of the M2 companion star has been credited with breaking the expected tidal lock of planet II with its primary.

There are three planets in the system. Planet I is an airless ball of rock within the habitable zone, but too small to support an atmosphere capable of evolving life forms. Planet II (described below) is a marginally habitable glacier-garden world on the outer fringes of the star's habitable zone. Planet III is a gas giant at a distance of 1.64 au with a family of multiple moons, similar to Jupiter (Sol V).

**Restricted Data:** The Kafers have frequently patrolled this system as part of their far-ranging preparations for war against the humans. It was a Kafer scout passing through the system which attacked the *LaFarge* in late 2300.

The star system is not an immediate priority in Kafer plans, since it lies off the main cluster of paths connecting Kafer and human space. There is a large nexus of stars accessible from DM + 17 2611, however: Wolf 461, Wolf 433, DM + 13 2618, and DM + 10 2531. These, in turn, link up with many more stars. The Kafers are intensely interested in this nexus because it leads to a star which they are interested in: the F0 double star Gamma Virginis. It is likely that the Kafers will turn their increased attention upon DM + 17 261 1 in the very near future.

## DM+ 17 2611 A

*Coordinates:* X: - 34.0 Y: - 11.5 Z: 11.1 *Type:* K2 V *Mass:* .72 *Luminosity:* .284 *Radius:* .764

**DM +17 2611 A-II:** This planet, sometimes known as the Klaxun World after its inhabitants, is cold, with more than 60 percent of its surface engulfed by ice sheets. Its eccentric orbit is responsible for seasonal temperature variations, which range from around freezing to as low as —100 degrees C when the world is at apastron.

The most remarkable aspect of planet II, of course, is the intelligent native species recently discovered there. Known as the Klaxun, they appear to represent an entirely new approach to sapient evolution. Klaxun social structure and physiology have attracted interest among human researchers since the species was first reported, but the outbreak of hostilities with the Kafers has hampered attempts to mount a major expedition to the system for further research. The Klaxun appear to be more closely related to plant forms than to animal life.

A second noteworthy feature of the world is its highly eccentric orbit, with its resulting temperature extremes. It has been suggested that the study of the adaptations of local bioforms, including the Klaxuns themselves, would be of great use in understanding both the evolutionary process and the ability of life forms to adapt to extreme and periodic cold.

*Notable Sites and Features:* Notable sites and features of the Klaxun world include:

- *The Planetary Ice Sheets:* The Klaxun world is cold by human standards even in the periastral summer. Approximately 60 percent of its surface is covered in a permanent ice sheet, and during the extremely cold period of the planetary winter, the entire surface is covered by ice, and much of the equatorial ocean is frozen over. How the native life adapts to these extremes is not fully understood.

- *The Klaxun:* The native intelligent species known as the Klaxun are the planet's principal attraction. Several human research foundations plan further studies of these enigmatic beings once the Kafer problem is resolved.

*Mean Orbital Radius:* .75 au *Period:* .765 year (279.6 days) *Rotational Period:* 16h 33m 45.23s *Equatorial Diameter:* 13,301 km (1.04 Earth) *Circumference:* 41,786 km *Mass:*  $8.5 \times 10^{27}$  (1.36 Earth) *Density:* 6.62 (1.2 Earth) *Surface Gravity:* 1.25 G *Escape Velocity:* 14 kps *Orbital Eccentricity:* .21568 *Mean Surface Temperature:* -30°C to 0°C.

*Atmosphere:* *Pressure at Mean Sea Level:* 1.09 bar *Partial Pressure O<sub>2</sub>:* .14 *Constituents:* N<sub>2</sub>: 81.54% O<sub>2</sub>: 12.8% Ar: 2.45% CO<sub>2</sub>: 1.23% CH<sub>4</sub>: 1.02% *Other Constituents, including Ne, CO, SO<sub>2</sub>, NH<sub>3</sub>:* Less than 1 %

## DM + 17 2611 B

*Coordinates:* X: - 34.0 Y: - 11.5 Z: 11.1 *Type:* M2 V *Mass:* .42 *Luminosity:* .027 *Radius:* .464

## ARCTURUS (ALPHA BOOTIS)

Arcturus is an example of a Population II star, an ancient relic of an age when the interstellar medium had not yet been enriched by super-novae. It is planetless, though it does harbor a diffuse belt of comets, ice chunks, asteroids, and dust.

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*Currently, Arcturus is considered to be a kind of no-being's land between Kafer and human space. Human warships arrive and patrol the system periodically. There are no signs that the Kafers are using the system as a permanent base, but human ships have detected "hostile unknowns"—i.e., probably Kafer warships—on several occasions, and it is assumed that the Kafers patrol periodically for signs of a permanent human presence.*

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**Recent History:** Arcturus has attracted considerable interest in recent years. Since it is the closest Population II star to Earth, a French deep-space research facility, *Station Arcture*, was placed in a 5.6-year period orbit about Arcturus several years ago in order to study the star, and to establish the foundations of an eventual orbital space colony in the planetless system. In 2295, *Station Arcture* reported contact with the star-faring vessel of a previously unknown race. Attempts to communicate were fruitless, and the stranger eventually departed.

Two years later, all contact with *Station Arcture* was lost.

It is now understood that a Kafer force returned to *Station Arcture* and captured it, killing most of the facility's personnel, but keeping a handful alive for repair work and for interrogation. A number were apparently killed in research vivisections. A year after Arcturus Station was taken, a Kafer armada attacked the Eta Bootis system and landed troops on Aurore, where the remnants of the original landing force are still being fought.

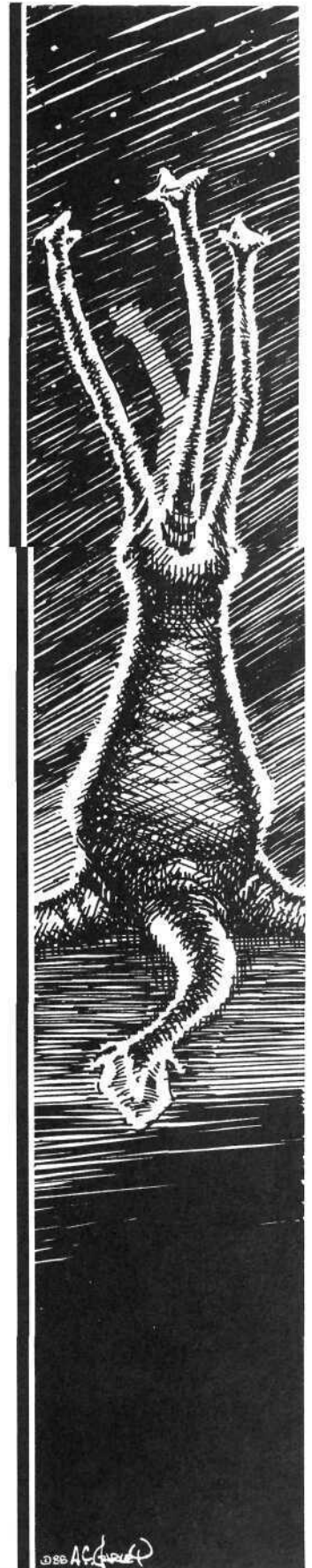
In 2299, an American cruiser division entered Arcturus space and drove off a Kafer force in the system after a hard fight. In 2300, an expedition arrived to rescue the surviving humans.

Currently, Arcturus is considered to be a kind of no-being's land between Kafer and human space. Human warships arrive and patrol the system periodically. There are no signs that the Kafers are using the system as a permanent base, but human ships have detected "hostile unknowns"—i.e., probably Kafer warships—on several occasions, and it is assumed that the Kafers patrol periodically for signs of a permanent human presence.

It has been suggested that Arcturus—perhaps with a base constructed on one of the star's assorted asteroids—would offer an ideal advance base from which a major offensive could be mounted into Kafer space against the Kafers. From Arcturus, three stars lie within the 7.7 light-year stutterwarp limit in the direction of Kafer space: Ross 52, DM + 16 2708, and DM + 19 2881. None of these systems has ever been visited by humans, but it is assumed that there must be at least some Kafer presence in one or more of these systems, and that the Kafers plan to use Arcturus as a gateway into human space. Paths shorter than the 7.7 light-year limit also exist between Arcturus and both DM + 18 2778 (Wiseman) and Hochbaden. Permanent occupation of Arcturus is being strongly urged by Admiral Borodin and other senior naval officers at Eta Bootis.

**Restricted Data:** The Kafers have already established a hidden base within the Arcturus system, buried within the core of an ice asteroid nearly 10 au from Arcturus. The base has been monitoring human activity within the system. Plans have already been formulated to use Arcturus as the springboard for a major invasion of human space, striking simultaneously at Eta Bootis, DM+ 18 2776, and Hochbaden.

**Coordinates:** X: - 28.0 Y: - 1 8.4 Z: 11.7 **Type:** K2 III **Mass:** 4 Sol **Luminosity:** 1 1 5 Sol **Radius:** 25 Sol





## BRIEF DESCRIPTIONS

Only a few planetary systems in Kafer space are described in detail. The Kafers do not appear interested in colonization for its own sake, unless the star offers worlds similar enough to their homeworld that they can live on the surface without elaborate protection. Neither are Kafers interested in establishing scientific outposts.

The majority of stars within the Kafer sphere are red dwarfs and K-class suns with worlds much dimmer and cooler than Kafers like. Only star systems which are of some interest to Kafers are described in this section, and only star systems which are of great importance or interest to them (such as the major Kafer colony worlds and the planets of the Ylij) are described in great detail.

The referee is reminded that every star system, including each of those described in only a few lines in this atlas, is a potential source of wonder and adventure. Should his player group get so far, the referee should feel free to expand upon the descriptions given here to create rich and varied worlds, using the basic planet generation rules of **2300 AD**

## SECTION II: STAR SYSTEMS IN KAFER SPACE

The star systems in this section have never been visited by humans (with the possible exception of human prisoners carried aboard Kafer ships). The referee should be careful not to divulge data from this list to player characters until they have an opportunity to acquire it for themselves.

### ROSS 52 (A & B)

Ross 52 is a close double with a red dwarf and a red sub-dwarf circling each other with an average separation of 4.2 au, and a period of 15 years.

As is the case in many such systems, the Ross 52 pair is surrounded by dense bands of dust, meteoric debris, and asteroids. Though large asteroids are relatively infrequent (typical separation is 2000 to 4000 kilometers), sufficient debris, ranging in size from grains of sand to gravel, exists to pose a hazard to spacecraft approaching the stars. The hazardous zone is limited to the plane of the ecliptic, and extends between six and 10 au from the stars.

Since both stars are quite small and cool, either or both could have planets orbiting one star closely enough to be unaffected by the other. In fact, Ross 52 A is planetless, but Ross 52 B has a single planet.

**Special Note:** Ross 52 is one of three systems through which 7.7 light-year stutterwarp routes pass from Kafer space to Arcturus. As such, it is heavily defended by Kafer fleet elements, including, at all times, at least one *Alpha-* or *Improved Alpha-*class battleship. These forces are under the command of the Kafer Suzerain called *V'shch \*agh!k* (What-Strikes). What-Strikes is part of the minority coalition loyal to *Ch\*gh'ng*, the Kafer Over-Suzerain.

#### Ross 52 A

*Coordinates:* X: -22.8 Y: -21.2 Z: 13.6 *Type:* M5 VI *Mass:* .1 Sol *Luminosity:* .002 Sol *Radius:* .1 Sol

#### Ross 52 B

*Coordinates:* X: -22.8 Y: -21.2 Z: 13.6 *Type:* M5 V *Mass:* .33 Sol *Luminosity:* .007 Sol *Radius:* .35 Sol

**Ross 52 B-I:** Ross 52 B-I is a typical gas giant similar (though without the brilliant rings) to Saturn (Sol VI). A Kafer military base and fueling station is located on the outer major moon.

*Mean Orbital Radius:* .67 au *Period:* .955 year (348.7 year) *Rotational Period:* 10h 24m 34s *Equatorial Diameter:* 120,675 km (9.46 Earth) *Circumference:* 379,111.7 km *Mass:*  $9 \times 10^{29}$  gm (150 Earth) *Density:* .98 gm/cm<sup>3</sup> (.18 Earth) *Surface Gravity:* 1.68 G *Satellites:* 5 major satellites (diameters greater than 1000 km); numerous minor satellites (diameters less than 1000 km)

### DM+ 16 2708

DM + 16 2708 has a family of six planets. Planets I through IV are airless, crater-pocked desert worlds which the Kafers have thus far ignored. Planets V and VI are small gas giants similar to Uranus and Neptune (Sol VII and VIII). Also present are extensive moon systems around both gas giants, and many asteroids pursuing independent orbits throughout the system.

A Kafer outpost and fueling station has been constructed on the largest moon of the outer gas giant.

**Special Note:** Like Ross 52, DM+16 2708 is one of the "gateway" stars between the Kafer Sphere and Arcturus. A large Kafer battlefleet, always including at least one *Alpha* or *Improved Alpha* 70,000-ton battleship, is permanently stationed here. The fleet is under the command of *Vv'ghahthr* (Sky Seizer), a Kafer suzerain in the majority coalition supporting Triumphant Destiny, and one of Triumphant Destiny's most powerful allies.

*Coordinates:* X: -23.9 Y: -22.3 Z: 9.5 *Type:* M0 V *Mass:* .48 Sol *Luminosity:* .04 Sol *Radius:* .54 Sol

### DM+ 19 2881

DM + 19 2881 consists of an M0 red dwarf circling a K-class star at a mean distance of 3.5 au. The K1 star has a family of three planets, all within 1 au of their primary. Five more worlds circle both stars jointly. The M0 also has two planets circling it alone, both frigid and airless

worlds of rock and ice.

Of the three inner worlds circling DM + 19 2881 A, one is at nearly optimum distance from its primary and has evolved as a typical garden world. Planet I is a Mercurian world in an eccentric orbit between .25 and .45 au from its star. Planet III is similar in many respects to Mars (Sol IV), a cold, desert-covered, and nearly airless world, lying .9 au from the star. (Planet II is described in greater detail below.)

**Special Note:** This is the third of the "gateway systems" between Kafer space and Arcturus, and it is heavily guarded by a major Kafer fleet under the direct command of the Kafer Suzerain known as Triumphant Destiny. Triumphant Destiny retired to this system after its defeat at Eta Bootis and has been repairing and restoring its fleet, largely with help from its ally, Sky Seizer. There are always large numbers of Kafer warships in this system, generally in orbit around planet II. A military base has been established on planet II's inner moon, and a small space station is in low orbit around the planet itself.

### DM + 19 2881 A

*Coordinates:* X: -26.9 Y: -24.9 Z: 12.8 *Type:* K1 *V Mass:* .77 *Sol Luminosity:* .352 *Sol Radius:* .832 *Sol*

**DM + 19 2881 A-II:** This world is very nearly a twin to Earth, slightly smaller, slightly warmer, and with more extensive seas than Sol III. It has evolved a rich and varied biosphere. The dominant land species are homeothermic and oviparous and have evolved in familiar terrestrial patterns to fill expected evolutionary niches, including carnivores, omnivores, herbivores, and scavengers. Two patterns have emerged from two separate evolutionary lines: a four-legged and a six-legged form. Both have evolved species capable of upright ambulation and forelimb dexterity, but none can be properly classified as sapient.

The planet's carbon chemistry evolution has gone in the direction of levo-amino acids, which suggests that many native varieties of plant and animal life would be both edible and nutritious to humans. This also suggests, of course, that there may be both poisonous forms and microorganisms which could adapt (and might be harmful) to humans. However, the single known major disadvantage is the world's long rotational period which could interfere with the natural rhythms of transplanted Terran plants and animals: a problem which could easily be overcome through genetic tailoring.

The Kafers have not yet established a major presence on planet II's surface, though it is only marginally less attractive to them than it would be to humans. A small Kafer colony has been established around a starport on the west coast of the planet's main continent. It currently supports approximately 50,000 Kafers in an agricultural colony which has been providing food for the growing Kafer fleet.

The world, then, is a prime colonization site, should humans ever discover it. Discovery of this world (assuming the Kafers don't get in the way) would be a guaranteed path to wealth and fame for any characters lucky enough to find it and get home with the tale.

*Kafer Name:* Shsh'ah ("The Wet One") *Mean Orbital Radius:* .61 au *Period:* .426 year (155.6 days) *Rotational Period:* 36h 27m 15.3s *Equatorial Diameter:* 12,598 km (.99 Earth) *Circumference:* 39,577.8 km *Mass:*  $5.8 \times 10^{27}$  (.966 Earth) *Density:* 5.534 gm/cm<sup>3</sup> (1.01 Earth) *Surface Gravity:* .99 G *Escape Velocity:* 11.08 kps *Axial Inclination:* 5° 12' 34" *Orbital Eccentricity:* .01 *Hydrographic Percentage:* 81% *Mean Surface Temperature:* 23° C *Magnetic Field:* .56 gauss, inclined at 12° to the pole *Satellites:* 2

*Atmosphere:* *Pressure at Mean Sea Level:* .99 bar *Partial Pressure O<sub>2</sub>:* .22 atm *Constituents:* N<sub>2</sub>: 76.14% O<sub>2</sub>: 22.51% Ar: .45% CO<sub>2</sub>: 309 ppm (Other Constituents, including Ne, CO, SO<sub>2</sub>: less than 100 ppm)

### DM + 19 2881 B

*Coordinates:* X: -26.9 Y: -24.9 Z: 12.8 *Type:* MO *V Mass:* .48 *Sol Luminosity:* .04 *Sol Radius:* .54 *Sol*

### ROSS 508

Ross 508 has little of native interest. It supports a system of five planets. Planet I is barren, airless, and tidally locked to its primary with hot and cold hemispheres and a narrow twilight zone between them. Planets II through IV are barren, airless, and uniformly cold. Planet V is

## THE HUMAN COLONY

*Of particular interest to humans investigating the system—though impossible to detect without a very detailed orbital survey, or with help from captured Kafer documents—is a small colony of approximately 100 humans on the east coast of the main colony. These humans are survivors of a much larger number of human prisoners taken on Aurore, at Station Arcture, and in snap raids elsewhere. Most humans have died in Kafer captivity—more from Kafer brutality and stupidity-induced indifference than for any other reason (though many have also died in Kafer "medical examinations" as well).*

*The human colonists on planet II are prisoners which the Kafers want to keep for possible future studies. However, Triumphant Destiny has realized that these few might not survive Kafer captivity, recognizing their refusal to eat Kafer food as a possible problem in keeping them healthy over a long period of time. Triumphant Destiny's solution has been to maroon the humans in an out-of-the-way wilderness area on planet II. They are kept under daily surveillance from the space station (it passes over once a day in its polar orbit) and are otherwise left alone. They have used native materials to build shelters and tools, and hunt local animals for food and clothing. The Kafers plan to either use the humans for future experiments or interrogations, or, if no further need can be found for them in the next year or two, to destroy them.*

classified as a failed core, a world which never accumulated enough material during the formation of the system to become a proper gas giant. It has an ice-covered surface and a dense atmosphere composed of quantities of hydrogen, helium, methane, and ammonia.

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*The Kafer name for Ross 508 is Gahshak'ah, which translates as "Dimly Sparkling One." It is believed that the star itself is nearly invisible to Kafer eyes, but that isolated bursts of UV radiation are visible to them as "sparkles" across its dimly-perceived surface.*

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Ross 508 is one of two systems on available paths from the "Gateway Stars" (Ross 52, DM+16 2708, DM+19 2881) to Gamma Serpenti, less than seven light-years away.

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**Special Note:** Ross 508 is one of two systems on available paths from the "Gateway Stars" (Ross 52, DM+ 16 2708, DM+19 2881) to Gamma Serpenti, less than seven light-years away. The Kafers have given it special attention and have fortified these two systems extensively.

The Kafer name for Ross 508 is *Gahshak'ah*, which translates as "Dimly Sparkling One." It is believed that the star itself is nearly invisible to Kafer eyes, but that isolated bursts of UV radiation are visible to them as "sparkles" across its dimly-perceived surface. To human eyes, an M6 red dwarf would appear deep red, with crusty or patchy-looking dark mottling (sunspots appearing black by contrast) across the surface.

Kafer military bases have been established on two of the system's rocky planets, and a major mining facility is operating in the twilight zone of the inner world of the system. The mining facility includes a 10-kilometer-long mass driver which accelerates rock scooped from the surface to a mass catcher/processor in the outer system. At least three regular battleships are always located in-system, as well as a moderate assortment of other heavy capital ships, under the command of *Ch \*gh'ng*, the Kafer Over-Suzerain. Fleet activities are closely coordinated with those of the AC + 18 1890-112 system, which lies extremely close at a distance of less than a day's travel away.

*Coordinates:* X: -21.8 Y: -26.3 Z: 10.8 *Type:* M6 V *Mass:* .3 Sol *Luminosity:* .006 Sol *Radius:* .313 Sol

#### **AC+18 1890-112**

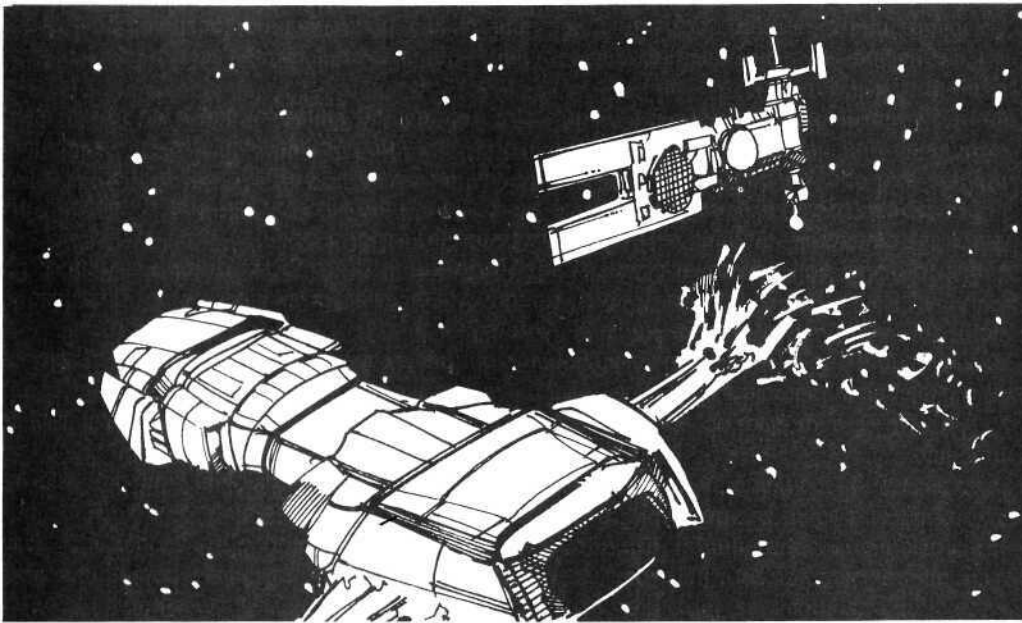
AC + 18 1890-112 is another system of little interest, save for its crucial position in Kafer tactical planning. It supports a family of three planets. Planet I lies at close to optimum distance but is too small to have retained an atmosphere and is tidally locked to its primary. Planets II and III are an unusual twin system six au from the star, paired gas giants similar in mass and composition to the planet Neptune (Sol VIII). They are separated by a distance of five and a half million kilometers and are circling one another about a common center of mass in slightly less than a year. Each gas giant has its own small family of a multitude of ice-covered moons and rocky worldlets, none with surface temperatures higher than a few degrees K.

**Special Note:** This is the second of the two systems on available paths from the "Gateway Stars" (Ross 52, DM+16 2708, DM + 19 2881) to Gamma Serpenti, only 6.24 light-years further on. Like Ross 508, it has received special Kafer attention, as they expect an eventual human assault on Gamma Serpenti. Such an attack would have to pass through these two systems.

Surface mines on the inner planet provide rock and ore which is catapulted to the outer system on a 10-kilometer mass driver located in the Trojan point which trails the gas giant pair around the sun. In addition, there are always at least two conventional Kafer battleships in the system, along with large numbers of smaller capital ships, all under the command of the Kafer Over-Suzerain, *Ch\*gh'ng*. Fleet activities in this system are closely coordinated with those at Ross 508 (described above). The Ross 508 system is only 1.7 light-years away—less than a day's travel for most Kafer ships—making such coordination for the most part relatively simple.

Refueling bases have been established on several of the gas giant moons as well.

*Coordinates:* X: -20.0 Y: -26.8 Z: 10.7 *Type:* M4 V *Mass:* .36 Sol *Luminosity:* .014 Sol *Radius:* .388 Sol



## LAMBDA SERPENTI

Lambda Serpenti is a yellow, G-class star only somewhat smaller and cooler than the Kafer homeworld's sun. It supports a family of 13 planets. Planets I through III all lie within the inner zone. Planet II (.48 au from the star) and planet III (.68 au) are both victims of a runaway greenhouse effect similar to that which exists on Venus (Sol II). Both have atmospheres of CO<sub>2</sub>, with H<sub>2</sub>SO<sub>4</sub> clouds, surface temperatures exceeding 400°C, and atmospheric pressures of over 90 bars.

Planet IV is a terrestrial planet similar to Earth, with slightly higher surface temperatures and large stretches of desert across the inland and equatorial regions. Planet V is also terrestrial, but is largely covered by glaciers and tundra.

Planets VI through XIII all lie beyond the habitable zone and are inhospitably cold. Planets VIII, X, and XIII are frozen balls of rock and ice with thin atmospheres of methane and inert gases. The others are gas giants, ranging from a large superjovian (VI) through a chill, distant giant (XII) smaller than Neptune (Sol VIII).

**Special Note:** The Lambda Serpenti System is a *Kavach* *\*!*, roughly translated as "Seat-of-Power," for one of the nine *Gnich* *\*ah*, or Suzerains. *Gvah* ("Name," or "Name of Names") is Suzerain, one of the majority of five who sided with Triumphant Destiny against the Over-Suzerain, *Ch* *\*gh'ng*. Name of Names is the only other Suzerain besides Triumphant Destiny with territory between the human sphere and Gamma Serpenti, and may suspect the Over-Suzerain plans to use the humans to rid itself of competition from that side. It was Name who was largely responsible for rebuilding Triumphant Destiny's fleet after its defeat at Eta Bootis. Currently, considerable friction exists between it and the Over-Suzerain, since the latter has been heavily fortifying Ross 508 and AC +181890-112. Lambda Serpenti is on a dead-end star lane, with no star within stutterwarp range other than these two stars, both controlled by the Over-Suzerain.

In its more intelligent moments, Name of Names believes *Ch* *\*gh'ng* is trying to destroy it. Name of Names hopes to ultimately unite with Triumphant Destiny to destroy the current order and unite the entire Kafer sphere under itself and Triumphant Destiny.

The Lambda Serpenti system does not have the *urgh*, or respect, of other systems within the Kafer domains, principally because planet IV has such a benign environment. As its Kafer name suggests, it is a peaceful place which does not offer the constant danger and challenge for survival that even the Kafer homeworld presents. Although Kafers would not think of it in this way, Kafers from other systems tend to look down on the inhabitants of Lambda Serpenti, since lack of danger implies stupidity.

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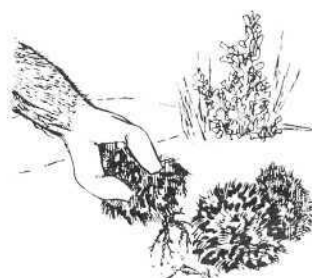
*Lambda Serpenti is a yellow, G-class star only somewhat smaller and cooler than the Kafer homeworld's sun.*

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*Lambda Serpenti-IV is the oldest out-system Kafer colony. Only the colony on Gamma Serpenti-IV is older. Lambda Serpenti is 7.8 light-years away from Gamma Serpenti by straight-line distance—just barely out of reach by contemporary stutter-warp drive technology.*

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And for their part, the inhabitants of Lambda Serpenti tend to be suspicious of the Kafers in other systems.

They are too much like smart barbarians.

*Coordinates: X: - 19.3 Y: - 28.6 Z: 4.5 Type: G0 V Mass: 1.04 Sol Luminosity: 1.21 Sol Radius: 1.03 Sol*

**Lambda Serpenti-IV:** Lambda Serpenti-IV is the oldest out-system Kafer colony. Only the colony on Gamma Serpenti-IV is older. Lambda Serpenti is 7.8 light-years away from Gamma Serpenti by straight-line distance—just barely out of reach by contemporary stutterwarp drive technology. Travel between the two systems must be effected through AC+ 18 1890-112, a total, one-way distance of 12.64 light-years. The system was reached and colonized at least 250 years ago and has achieved near-independent status.

The present population of Lambda Serpenti-IV is over 25 million. There are five major cities scattered across the planet, all along the coasts of one of the two major, landlocked seas, plus many hundreds of smaller communities. The planet is primarily agricultural, though heavy industry and mining are both important as well.

*Notable Sites and Features:* Notable sites and features of Lambda Serpenti-IV include:

- *The Kafer Cities:* Kafer cities tend to be low and sprawling, with few buildings more than two or three stories tall. Most are laid out as a series of concentric circles, with broad lanes radiating out from a central *j'jach* \*!! (the word is partly untranslatable but suggests a palace, a *powerful* safe-place).

- *Deserts:* Planet IV is nearly half ocean, nearly half desert, with broad strips of arable land surrounding the two large and landlocked seas. The desert regions have all the variety and stark beauty of the different types of desert terrain found on Earth: dune seas and ergs, wind- and water-carved badlands and hammadra, mineral beds and barren, empty wildlands. Most desert areas on planet IV are uninhabited and virtually unexplored, despite the planet's large population. Kafers, it seems, do not have the same urge to explore as part of their nature that is part of human nature.

*Kafer Name: Ch \*!!'ah ("Not-Face-Death One") Mean Orbital Radius: .89 au Period: .823 year (300.7 days) Rotational Period: 23h 37m 11.5s Equatorial Diameter: 13,746 km (1.08 Earth) Circumference: 43,184.3 km Mass:  $7.2 \times 10^{27}$  (1.205 Earth) Density: 5.312 gm/cm<sup>3</sup> (.96 Earth) Surface Gravity: 1.037 G Escape Velocity: 11.6 kps Axial Inclination: 14° 27' 12" Orbital Eccentricity: .019 Hydrographic Percentage: 48% Mean Surface Temperature: 35°C Magnetic Field: .12 gauss, inclined at 7° to the pole Satellites: 1*

*Atmosphere: Pressure at Sea Level: 765mm Hg or 1.02 bar Partial Pressure O<sub>2</sub>: .18 atm Constituents: N<sub>2</sub>: 81.19% O<sub>2</sub>: 17.67% Ar: 1.13% CO<sub>2</sub>: 298 ppm Other Constituents, including Ne, CO, SO<sub>2</sub>, CH<sub>4</sub>: Less than 100 ppm*

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*The world has an eccentric orbit which produces more seasonal temperature variations than does its axial tilt, but such is the size of the mass of ice that there is little change during the short summer but an enlargement of the equatorial seas.*

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**Lambda Serpenti-V:** Planet V has a large hydrosphere, but except for a narrow fringe of equatorial sea, almost the entire world ocean is locked up in ice. The planet almost certainly enjoyed a warmer past and evolved life, but little native life remains now but microscopic organisms, and hardy, arctic survivors similar to Terran mosses, lichens, and tundra grasses. The Kafer name (*Gh'kang'ah*—"The Chill, Bright One") refers to the planet's appearance from space. With over three-quarters of the surface covered by ice, it is visible from the surface of planet IV as a bright star even in broad daylight.

The world has an eccentric orbit which produces more seasonal temperature variations than does its axial tilt, but such is the size of the mass of ice that there is little change during the short summer but an enlargement of the equatorial seas.



The planet is small enough to have become tidally locked to its primary, despite its extreme distance from the star. The fact that it is not so locked is probably due to the proximity of its large, inner satellite, barely 200,000 kilometers away, which was sufficient to interfere with stellar tides and permit a normal rotational period.

The Kafers have largely ignored the planet, which is far colder than they like. They have extensively mined the inner moon, however, which has extensive accessible deposits of iron, nickel, chromium, and various heavy metals. Lambda Serpenti Va, which the Kafers call *G'dah* ("Massive One"), is the source of most of the system's heavy metal production, and the site of several major industrial facilities. A shipbuilding plant is located in orbit around the moon. The total Kafer population on the surface of planet V is less than 5000. At least 200,000 live and work in and around planet V's inner moon, however.

**Notable Sites and Features:** Notable features of Lambda Serpenti-V include:

- **The Ice Sea:** Planet V is covered by ice sheets stretching from both poles almost to the equator. Only a small strip of desert land mingled with small and shallow seas exists in a band within 10° north and south of the equator. While the sunlight is dimmer at this distance than Earth's sun appears from Earth, the planet still presents a dazzling spectacle of beauty from orbit.

**Kafer Name:** *Gh'kang'ah* ("The Chill, Bright One") **Mean Orbital Radius:** 1.335 au **Period:** 1.513 year (552.5 days) **Rotational Period:** 27h 58m 41.3s **Equatorial Diameter:** 9365 km (.73 Earth) **Circumference:** 29,421 km **Mass:**  $2.4 \times 10^{27}$  (.395 Earth) **Density:** 5.512 gm/cm<sup>3</sup> (1 Earth) **Surface Gravity:** .733 G **Escape Velocity:** 8.2 kps **Axial Inclination:** 12° 03' 19" **Orbital Eccentricity:** .091 **Hydrographic Percentage:** 82% **Mean Surface Temperature:** 0°C **Magnetic Field:** .01 gauss, inclined at 2° to the pole **Satellites:** 2

**Atmosphere:** **Pressure at Sea Level:** 533mm Hg or .71 bar **Partial Pressure O<sub>2</sub>:** .128 atm **Constituents:** N<sub>2</sub>: 78.64% O<sub>2</sub>: 18.11 % Ar: 1.52% CO<sub>2</sub>: 1.1% **Other Constituents, including Ne, CO, SO<sub>2</sub>:** Less than 400 ppm

## DM + 24 2786 (A & B)

This is a double star supporting two separate planetary systems. The stars have a mean distance of 6.2 au and circle one another once every 12.9 years. Star A, a virtual twin to Sol, has a family of three planets. Planet II (described below) has been heavily colonized by the Kafers and is the seat of power for one of the nine Kafer suzerains. Star B has two planets. The innermost is barren and tidally locked, but has proven to be a rich source of metals and radioactive ores for Kafer industrial facilities in both systems.

**Special Note:** This system is the regional capital for Triumphant Destiny, a fortuitous selection for that ambitious Kafer leader since it provides it with a large population base, an excellent agricultural region (DM + 24 2786 A-II), and a valuable source of heavy metals and other natural resources needed for industry (DM+ 24 2786 B-I).

The system is located on a circle of stars joining travel routes of 7.7 light-years or less. The circle consists of 3 M-class dwarfs (besides DM+ 24 2786 B) and a K7 star, and includes the K1-M0 double DM+ 19 2881—one of the "Gateway Stars" between Arcturus and the Kafer sphere.

Triumphant Destiny controls all of these systems as its own domain. This makes it both one of the most powerful of the Kafer suzerains, and unquestionably the most exposed in the war against the humans. Any human assault from Arcturus against DM + 19 2881 would bring the human forces into action against Triumphant Destiny's forces in its own territory long before they would encounter Triumphant Destiny's ally Gvah ("Name of Names") at Lambda Serpenti. Their next target in line, in fact, would be the forces of the Over-Suzerain at Ross 508 or AC+ 18 1890-112—and then the Kafer home system of Gamma Serpenti itself.

Triumphant Destiny, then, occupies an extremely sensitive and strategic point in the Kafer defenses against the human enemy.

## DM+ 24 2786 A

**Coordinates:** X: -31.6 Y: -28.5 Z: 19.0 **Type:** G2 V **Mass:** 1.00 Sol **Luminosity:** 1.00 Sol **Radius:** 1.00 Sol

**DM+ 24 2786 A-II:** Planet II of the G2 component of this system has been heavily and extensively industrialized. Though natural levels of CO<sub>2</sub>, SO<sub>2</sub>, and other compounds are low, Kafer industry has resulted in a sharp, recent rise in atmospheric pollutants measured at select

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*This system is the regional capital for Triumphant Destiny, a fortuitous selection for that ambitious Kafer leader since it provides it with a large population base, an excellent agricultural region (DM+24 2786 A-II), and a valuable source of heavy metals and other natural resources needed for industry (DM+24 2786 B-I). '*

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*In the centuries since the beginnings of planet-wide industrialization, Kafer industry has transformed the planet in other ways.*

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areas (though not, evidently, enough to affect the global concentrations). Planet II supports a population of approximately 30 million Kafers. Another 10 million live off-world, including on and around the inner planet of neighboring DM+ 24 2786 B, which supplies the colony with most of the ores and raw materials for its industries.

*Shghgh'ah* is the *kavach* \*(regional capital) of the Kafer suzerain known as Triumphant Destiny.

*Kafer Name: Shghgh'ah* ("The Promising One") *Mean Orbital Radius: .95 au Period: .926 year (338.2 days) Rotational Period: 21 h 18m 32.2s Equatorial Diameter: 14,692 km (1.15 Earth) Circumference: 46,156.3 km Mass:  $8.8 \times 10^{27}$  (1.465 Earth) Density: 5.291 gm/cm<sup>3</sup> (.96 Earth) Surface Gravity: 1.1 G Escape Velocity: 12.32 kps Axial Inclination: 3° 12' 13" Orbital Eccentricity: .001 Hydrographic Percentage: 72% Mean Surface Temperature: 28°C Magnetic Field: .24 gauss, inclined at 1 ° to the pole*

*Atmosphere: Pressure at Sea Level: 712mm Hg or .95 bar Partial Pressure O<sub>2</sub>: .196 atm Constituents: N<sub>2</sub>: 77.94% O<sub>2</sub>: 20.71 % Ar: 1.03% CO<sub>2</sub>: 305 ppm Other Constituents, including Ne, CO, SO<sub>2</sub>: less than 500 ppm*

### **DM+ 24 2786 B**

*Coordinates: X: -31.6 Y: -28.5 Z: 19.0 Type: MO V Mass: .48 Sol Luminosity: .04 Sol Radius: .54 Sol*

### **GAMMA SERPENTI**

Gamma Serpenti, the Kafer home star system, is fully described elsewhere in this Sourcebook, under the chapter entitled "The Kafer Homeworld." Only a few general notes are presented here.

The planet retains the general features of ages past: a single, landlocked sea in the southern hemisphere, broad expanses of desert and high-temperature desolation, the steppes and fertile plains where Kafer civilization evolved. Nearly all of the arable land has been subdued by Kafer technology during the past several centuries, and nearly all is under cultivation or occupied by cities or factories (there is little to distinguish the two). Cities have appeared in desert areas as well, irrigated by water desalinated and pumped from the sea, and vast tracts of desert wasteland have been given over to factories or to open pits where ores and minerals are gathered and processed. Other cities extend out onto the surface of the sea, or exist below it, where extractors work to draw precious metals from seawater. The entire, habitable surface of the Wafer world could be likened to a single, vast, industrial facility.

In the centuries since the beginnings of planet-wide industrialization, Kafer industry has transformed the planet in other ways. Pollution is gradually poisoning the atmosphere; the extinction of vast numbers of native plants and animals is upsetting the ecological balance which created the Kafers in the first place; and the combination of waste heat and CO<sub>2</sub> from various industrial processes threatens to create a runaway greenhouse effect which could render the planet lifeless.

The danger is recognized by the Kafers but is viewed as one more weapon in the arsenal which the Universe has arrayed against them. Their assault on the Universe, in the form of the conquest of space, is viewed as the only possible safeguard for the continued existence of the race.

**Special Note:** Gamma Serpenti is linked to only three other star systems by routes less than the 7.7 light-year maximum for stutterwarp travel. Ross 508 and AC+ 18 1890-112 have already been described. The third system is known to the Kafers as *Ch \*ah*.

### **BK+00 2334**

The star of this system is a twin to Sol, almost identical in age, mass, luminosity, and size to Earth's sun. It has a family of eight planets. Planet I is airless, small, and barren. Planet II is habitable and heavily colonized by the Kafers (see below). Planets III and IV are both similar to Mars (Sol IV), while the outer planets are all gas giants.

**Special Note:** The *Ch \*ah* system is the capital (*Kavach*!) of a Kafer suzerain called *V'shch \*agh!k* (roughly translated as "What Strikes").

What Strikes is firmly allied with *Ch \*gh'ng* against Triumphant Destiny. Little agriculture and only limited industry is carried out on the surface of planet II, but heavy industry and mining is carried out on the planet's moon.

Three other star systems are controlled by What Strikes: the three red dwarfs called BK- 1 1423, BK-2 0075, and HC-6 2111. Bases and outposts on worlds around each of these three

support another 200,000 Kafers and provide What Strikes with additional industry and mining centers.

*Coordinates:* X: -21.3 Y: -37.3 Z: 7.1 *Type:* G2 *Mass:* 1.00 Sol *Luminosity:* 1.00 Sol *Radius:* 1.00 Sol

**BK + 00 2334-11:** It is uncertain why this planet escaped the fate of Venus (Sol II, only slightly closer to its primary than is this world) and did not develop a runaway greenhouse effect which would have rendered it incapable of supporting life. The two principal factors appear to be the appearance of early life forms adept at lowering atmospheric CO<sub>2</sub> levels, and the close approach of a large satellite in an eccentric orbit which could have helped strip off the early planetary atmosphere.

Life has developed on this world in violent and competitive profusion. Numerous species of plants are both motile and carnivorous, and most animals are well-equipped for offense or defense with fangs and claws, camouflage, heavy armor, or all three.

The world's ecosystem renders it in rather violent contrast to worlds such as Lambda Serpenti-IV. Though only 5.5 light-years away from Gamma Serpenti, it was explored and colonized after the Lambda Serpenti system, due to the fact that several exploratory missions were lost before a foothold could be won on the planet. It now has a thriving colony, however, and is one of the Kafer *Kavach* \*, or seats of power. An estimated 20 million Kafers live on the world in one of four major cities, and another million live in orbital manufacturing facilities or on the planet's moon where extensive mines and industrial plants have been established.

Although Kafers do not engage in activity which would answer to human ideas of "relaxation" or "sport," the *Ch \*ah* system is popular with Kafers who visit it. The hazards of a walk through the jungle make an interesting change from normal "social combat" and can serve to sharpen and toughen Kafers according to the precepts of *Gurrruthr*.

*Notable Sites and Features:* Notable features of planet II include:

- *Native Life:* This planet supports a fantastic mix of plant and animal life. Most of the land surface between 40° N and 40° S is dense jungle, and natural selection and intense competition between various species has resulted in an unbelievably savage and violent ecosystem.

*Kafer Name:* *Ch \*ah* ("Struggle One") *Mean Orbital Radius:* .78 au *Period:* .689 year (251.6 days) *Rotational Period:* 26h 43m 31.2s *Equatorial Diameter:* 12,097 km (1.08 Earth) *Circumference:* 38,003.8 km *Mass:* 5.1 x 10<sup>27</sup> (.857 Earth) *Density:* 5.544 gm/cm<sup>3</sup> (1 Earth) *Surface Gravity:* *Axial Inclination:* 32° 13' 56" *Orbital Eccentricity:* .003 *Hydrographic Percentage:* 78% *Mean Surface Temperature:* 30°C *Magnetic Field:* .45 gauss, inclined at 27° to the pole *Satellites:* 1

*Atmosphere:* *Pressure at Sea Level:* 692mm Hg or .923 bar *Partial Pressure O<sub>2</sub>:* .20 atm *Constituents:* N<sub>2</sub>: 75.98% O<sub>2</sub>: 22.12% Ar: 1.81 % CO<sub>2</sub>: 250 ppm *Other Constituents, including Ne, CO, SO<sub>2</sub>, CH<sub>4</sub>:* Less than 500 ppm

## DM+ 13 2901

**Special Note:** DM + 13 2901 (Clouded One) is another regional capital ruled by *Vv'ghghthr* (Sky Seizer). Though it distrusts Triumphant Destiny, it has supported its bid for union against the humans. It has been considering reaffirming its support of *Ch\*gh'ng*, however.

Sky Seizer controls two other star systems from DM + 13 2901, BK-8 8054, and BK + 7 5675. Both are important sources of heavy metals, radioactives, and minerals.

*Coordinates:* X: -30.7 Y: -32.5 Z: 70.6 *Type:* G6 *Mass:* .916 Sol *Luminosity:* .62 Sol *Radius:* .908 Sol

**DM+ 13 2901-IV:** The Kafers named this world "The Clouded One" for its frequent heavy overcasts. Typically, over 70 percent of the planet's surface is covered by clouds. It is suspected that this mechanism is responsible for reflecting enough of the G6 star's light to maintain a delicate balance between a habitable, life-bearing world and a runaway greenhouse effect. Another factor in the equation is the large, planetary ocean, which serves as a reserve for excess CO<sub>2</sub> and helps maintain the atmospheric balance of gases. Nonetheless, the atmospheric carbon dioxide levels are quite high (the air would seem close and stuffy to a human), and the danger of a runaway greenhouse effect destroying all life on the world is both real and imminent. Kafer factories and manufacturing centers add daily to the amount of CO<sub>2</sub> in the air.

The population of The Clouded One is over 10 million, most in a single city located on the west coast of the world's lone continent. Bases and manufacturing centers exist on the larger,

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*Life has developed on this world [BK+00 2334-II] in violent and competitive profusion. Numerous species of plants are both motile and carnivorous, and most animals are well-equipped for offense or defense with fangs and claws, camouflage, heavy armor, or all three.*

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*The Dry One is a Kafer regional capital, under the control of the Kafer Suzerain called Vahaa Chok'ah, or "Wiley Cunning." This Kafer is widely admired throughout the Kafer sphere for its history of surviving numerous plots against its life in endless power struggles with both its peers and its juniors.*

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outer moon and in orbit.

*Notable Sites and Features:* Notable features of The Clouded One include:

- *Crystal Mountains:* A range of weathered mountains with numerous outcroppings of exceptionally pure quartz crystal, growing in great profusion as six-sided pillars with the appearance of clear or colored glass.

- *World Ocean:* The surface of the planet is almost nine-tenths ocean. Land area consists of a single small continent in the southern hemisphere and scatterings of islands elsewhere. Coriolis storms (hurricanes) of tremendous violence are spawned seasonally and can flood most low-lying land areas with waves tens of meters high.

Most higher forms of life exist in the sea, and Kafer records mention sightings of extremely large and powerful creatures far from the shallow coastal waters of the continent they have settled. Land life is geologically recent on this world and is restricted to tropical vegetation and hard-shelled local versions of crabs, spiders, and centipedes.

*Kafer Name:* Veh'ah ("Clouded One") *Mean Orbital Radius:* .65 au *Period:* .548 year (200 days) *Rotational Period:* 25h 14m 1.1s *Equatorial Diameter:* 11,034 km (.86 Earth) *Circumference:* 34,664.3 km *Mass:*  $3.9 \times 10^{27}$  (.647 Earth) *Density:* 5.513 gm/cm<sup>3</sup> (1 Earth) *Surface Gravity:* .864 G *Escape Velocity:* 9.67 kps *Axial Inclination:* 12° 23' 16" *Orbital Eccentricity:* .009 *Hydrographic Percentage:* 88% *Mean Surface Temperature:* 35°C *Magnetic Field:* .03 gauss, inclined at 7° to the pole *Satellites:* 3

*Atmosphere:* *Pressure at Sea Level:* 634mm Hg or .846 bar *Partial Pressure O<sub>2</sub>:* .201 atm *Constituents:* N<sub>2</sub>: 72.68% O<sub>2</sub>: 23.84% Ar: 1.02% CO<sub>2</sub>: 2.34% *Other Constituents, including Ne, N<sub>2</sub>O, CO, SO<sub>2</sub>:* Less than 500 ppm

## CHIEN 112

The star is nearly identical to the Kafer homeworld star and is only slightly more massive and hotter. The star supports 15 planets. Of these, planet IV is closest to what Kafers consider comfortable. Planets II and III are hothouse worlds like Venus (Sol II), while the other inner worlds are airless deserts. Planets V through X are gas giants, while the rest are frozen balls of ice.

**Special Note:** The Dry One is a Kafer regional capital, under the control of the Kafer Suzerain called Vahaa Chok'ah, or "Wiley Cunning." This Kafer is widely admired throughout the Kafer sphere for its history of surviving numerous plots against its life in endless power struggles with both its peers and its juniors. At the same time, both its name and its emulation of its name create considerable distrust among other Kafers.

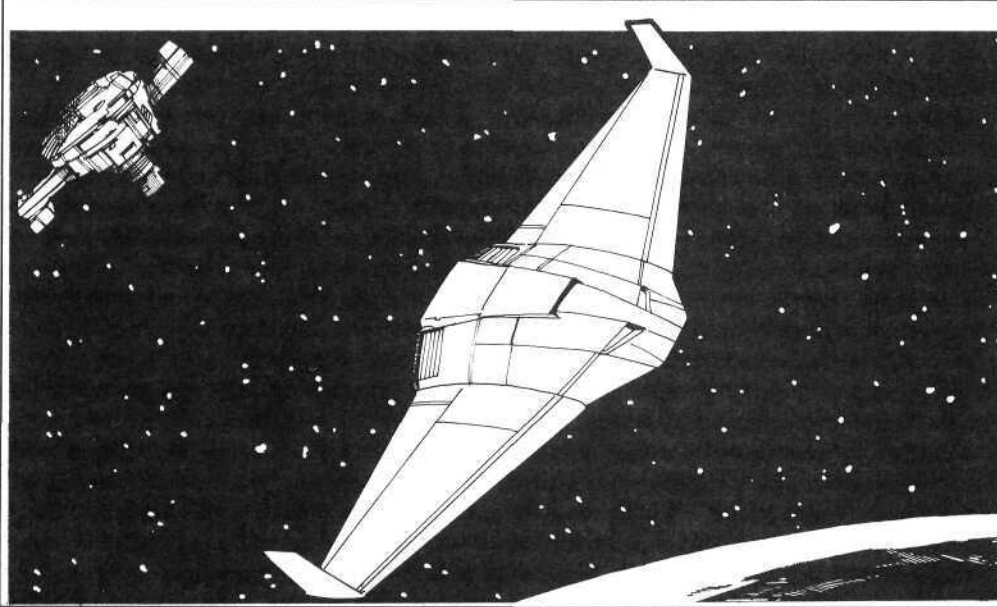
Wiley Cunning is not yet in open defiance of the other members of the Kafer Associative, but there is a strong possibility that this could happen. Wiley Cunning's world is located far from Gamma Serpenti, at the end of a long and snaking route of 7.7 light-year passages between stars near the very edge of Kafer space. So far, the Kafer suzerain's rebellion has been restricted to wranglings and social combats in Associative meetings, but there is great concern within the Associative, and especially within the block of Kafer Suzerains opposed to the war with the humans, that Wiley Cunning is working against them. Wiley Cunning is one of the minority of four who opposed Triumphant Destiny's plan for war with the humans.

Wiley Cunning evidently believes that it would be better off if it could maintain full independence from the rest of the Kafer governments. It controls three other systems besides its own: BK+ 10 1245 (with a class K2 star), Chien 414 (with an M4), and the HC+11 9580 system, which is a white dwarf with no planets at all. BK +10 1245 and Chien 41 4 have sparsely-populated agricultural worlds which provide The Dry One with a large percentage of its food. Wiley Cunning has refrained from an open break with the the Suzerains, since loss of those two systems could threaten its own population with starvation. It has, however, been quietly establishing an alliance with the Suzerain of HC+ 13 232 A, in the belief that two Suzerains could better stand war against other members of a shattered Associative than one.

*Coordinates:* X: -43.3 Y: -35.8 Z: 2.3 *Type:* F6 *Mass:* 1.248 Sol *Luminosity:* 3.042 Sol *Radius:* 1.326 Sol

**Chien 112-IV:** The Kafers have named this world "Dry One," a fitting name. The planet's star is close in age, mass, and brightness to the Kafer's home system's star. Here, however, there is far less free water, and the range of temperature variations is considerably higher. The reason for this is the planet's extreme axial tilt, which exceeds 45 degrees.

The polar areas cover much more of the globe than they do on Earth. The area from the north



pole to 42°N (corresponding to the location of Chicago on Earth), and the area from the south pole to 42°S (corresponding to the location of Melbourne on Earth), alternately face towards or away from the sun for long periods of time during the course of a single year. Thus, in the northern hemisphere's summer (which lasts for over 150 days), the sun never sets for much of that time, while the south polar areas are in unending night.

As a result, the poles become quite hot in the local summer, while temperatures hover around freezing throughout most of the local winter. These climactic extremes have resulted in the loss of much of the planet's water over the past several millions of years.

The Dry One has been heavily colonized by the Kafers, who find the local climate similar to their homeworld. Most of the 30 million colonists live in a chain of cities along the southern shore of the sea, less than 30 degrees from the equator. Here, temperature extremes are not so severe as elsewhere, and the winter nights, while long, do not last for months at a time. Numerous offshore de-mineralization plants extract useful minerals for shipment to other Kafer worlds, and provide fresh water for consumption and for irrigation. Large tracts of desert have been reclaimed as agricultural land through careful husbanding of the available water. Power is provided by several large fusion plants and by orbital powersats.

The total population of planet IV is 15 million. Another million Kafers live offworld, in orbital factories and in the various mines and industrial plants scattered among the other worlds and moons of the system.

*Notable Sites and Features:* Notable sites and features of The Dry One include:

- *Great Desert:* The entire surface of this world is desert, with only a single small, landlocked sea in the northern hemisphere. The desert exhibits the typical broad range of terrain features, as well as a complete ecosystem adapted to extremely dry conditions and variable temperatures.
- *Mineral Flats of Arragh:* The small sea was at one time an ocean encompassing much of the northern hemisphere. The sea now has an extremely high mineral content (similar to the Dead Sea or Great Salt Lake on Earth) and is surrounded by vast salt beds which mark the ancient beds of this vanished ocean. Sodium chloride, gypsum, and certain magnesium salts make up most of the mineral encrustation which covers the ground and every rock outcropping with a fantastic menagerie of crystalline shapes.

*Kafer Name:* Da've'ah ("Dry One") *Mean Orbital Radius:* 1.54 au *Period:* 1.711 year (624.8 days) *Rotational Period:* 3d 8h 17m 41.9s *Equatorial Diameter:* 9893 km (.78 Earth) *Circumference:* 31,079.8 km *Mass:*  $2.4 \times 10^{27}$  (.433 Earth) *Density:* 5.12 gm/cm<sup>3</sup> (.93 Earth) *Surface Gravity:* .72 G *Escape Velocity:* 9.67 kps *Axial Inclination:* 48° 21' 19" *Orbital Eccentricity:* .015 *Hydrographic Percentage:* 9% *Mean Surface Temperature Range:* 10°C to

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*The small sea was at one time an ocean encompassing much of the northern hemisphere. The sea now has an extremely high mineral content...and is surrounded by vast salt beds which mark the ancient beds of this vanished ocean. Sodium chloride, gypsum, and certain magnesium salts make up most of the mineral encrustation which covers the ground and every rock outcropping with a fantastic menagerie of crystalline shapes.*

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The Deadly One (a planet in HC+13 232) is the regional capital for the Kafer named Rrrah (not translatable at this time, possibly meaningless). Though there is little in the way of industry (and no agriculture at all) on the surface of the planet, numerous mines on other bodies within the system provide orbital industrial facilities with needed raw materials.

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50°C Magnetic Field: .75 gauss, inclined at 24° to the pole

Atmosphere: Pressure at Sea Level: 547mm Hg or .73 bar Partial Pressure O<sub>2</sub>: .076 atm  
 Constituents: N<sub>2</sub>: 88.27% O<sub>2</sub>: 10.42% Ar: 1.05% CO<sub>2</sub>: 255 ppm Other Constituents, including Ne, CO, SO<sub>2</sub>: Less than 300 ppm

### HC+13 232 A & B

**Special Note:** The Deadly One (a planet in HC+ 13 232) is the regional capital for the Kafer named Rrrah (not translatable at this time, possibly meaningless). Though there is little in the way of industry (and no agriculture at all) on the surface of the planet, numerous mines on other bodies within the system provide orbital industrial facilities with needed raw materials. The principal export from the system, however, is a variety of organically-based chemicals drawn from certain fungi harvested on the surface of the planet. The total population on The Deadly One is 34,000.

In addition, Rrrah controls six additional star systems, making it the Kafer with the most numerous and far-flung domain of all the Suzerains. In addition to the companion to HC+ 13 232, it controls the systems of BK+15 3434, HC+18 9881, Chien 820, SS+28 9357, DK+29 3074, and HC-30 0340. This includes four M-class red dwarfs and two K2 stars, and includes several worlds with large Kafer populations. The total Kafer population under Rrrah's control numbers approximately 200 million.

Rrrah is one of the supporters of Ch \*gh'ng against the ambitions of Triumphant Destiny. Wiley Cunning has been talking to it of late about a possible political alliance against the Over-Suzerain, but it does not trust the scheming intelligence of the Suzerain of Da've'ah (Chien 112).

### HC+13 232 A

Coordinates: X: -42.1 Y: -43 Z: -3.4 Type: G2 Mass: 1.00 Sol Luminosity: 1.00 Sol Radius: 1.00

**HC+ 13 232 A-II:** The Kafers named this world "The Deadly One" for good reason. The star is nearly identical to Earth's sun, the planet only slightly warmer than Earth itself. Though cool and wet to Kafer thinking, the world would have been ideal as a Kafer colony, except for one factor.

Evolution on The Deadly One resulted in the proliferation of an incredible variety of plant life similar to fungi on Earth. Many plant forms use an analogue of photosynthesis to produce food, and other varieties use chemosynthesis to extract needed energy from the soil. The vast majority, however, act as saprophytes (feeding off dead organic material) or parasites, in a bewildering zoo of interlinked botanical forms which effectively dominate the planet.

The air is quite similar in composition to that of Earth, but it is deadly to breathe, nonetheless. Each breath contains countless different spores and pollen grains. Most of the pollen creates extreme anaphylaxes in air-breathing organisms. The spores tend to take root in moist, dark places and grow—explosively. During the early days of Kafer colonization, some Kafers faced danger by breathing unfiltered air on the surface of The Deadly One. Some survived the exposure with nothing worse than the symptoms of a bad allergic reaction. Others died in various spectacular fashions as fungus consumed them from the inside out. This particular pastime soon died out. There was, after all, nothing to actually fight *against*, making such deaths particularly senseless.

The major cities exist at high altitudes, above the densest concentrations of fungal spores and pollen. All cities are sealed, with pumps to draw their air in from the outside through multiple biological filters. Kafers venture into the outside air only in protective suits or enclosed, armored vehicles.

**Notable Sites and Features:** Notable sites and features of The Deadly One include:

- **Domed Cities of Ghrroch \*:** Atmospheric conditions have forced most of the Kafer settlements to be sealed under airtight domes. The capital city at Ghrroch \* is the largest and most impressive of these, located on the Ghrroch \* Plateau, a sheer-sided butte reaching over three kilometers above the surrounding jungle valley.

**Kafer Name:** Ch \*Ch \*ah ("Deadly One") **Mean Orbital Radius:** .96 au **Period:** .941 year (343.6 days) **Rotational Period:** 24h 27m 43.2s **Equatorial Diameter:** 13,789 km (1.08 Earth) **Circumference:** 43,319.4 km **Mass:** 7.1 x 10<sup>27</sup> (1.195 Earth) **Density:** 5.221 gm/cm<sup>3</sup> (.95 Earth) **Surface Gravity:** 1.02 G **Escape Velocity:** 11.42 kps **Axial Inclination:** 5° 15' 32" **Orbital**

*Eccentricity:* .002 *Hydrographic Percentage:* 73% *Mean Surface Temperature Range:* 18°C  
*Magnetic Field:* .36 gauss, inclined at 1° to the pole

*Atmosphere:* *Pressure at Sea Level:* 790mm Hg or 1.053 bar *Partial Pressure O<sub>2</sub>:* .076 atm  
*Constituents:* N<sub>2</sub>: 78.61 % O<sub>2</sub>: 20.23% Ar: 1.15% CO<sub>2</sub>: 345 ppm *Other Constituents, including*  
Ne, CO, SO<sub>2</sub>: Less than 200 ppm

### HC+13 232 B

No satellites larger than 500 kilometers.

*Coordinates:* X: -42.1 Y: -43 Z: -3.4 *Type:* F6 *Mass:* 1.248 Sol *Luminosity:* 3.042  
Sol *Radius:* 1.326 Sol

### HC-4 9701

This G2-type sun (Kafer system name: *Kaa'a'ah*) attracted Kafer interest early in their expansion into interstellar space. Its location led Kafer explorers to make contact with the Ylii three centuries ago as the Kafers attempted to find a stutterwarp route to this promising star. There are only three planets, and only the outer world is suitable for Kafer (or human) life. An eccentric companion has disrupted planetary formation in the outer reaches of the system.

**Special Note:** This system is the *kavach* \*! of *Vakach* \* (Fight-For-Fun). *Vakach* \* is one of the Kafer suzerains who has allied itself with Triumphant Destiny against *Ch \*gh'ng*. *Vakach* \* has been urging a united effort by the Kafer Associative against the Ylii, but with little success. It sees in the human war the possibility of forging a stronger Kafer union which, after the defeat of the humans, can be turned against the Ylii.

*Vakach* \* controls five other systems. Two of these, the star systems HC + 3 1919 and Oneil 723, are former Ylii worlds. Both were taken by the forces of *Vakach* \*'s predecessors. While the Ylii are not perceived by most Kafers as a threat, *Vakach* \* believes that there are indications of toughening Ylii resistance (see the section on the Ylii for more about this resistance), and wants to eradicate the Ylii once and for all.

As one of the only two Kafer suzerains directly confronting the Ylii, *Vakach* \* has been urging the Associative to join in an all-out campaign against the Ylii for some time. Neither it nor its predecessors have been able to complete the conquest—usually because of minor wars breaking out between *Arrach* \*ah and the neighboring Suzerainty of *Ch* \*ah. A recent series of meetings with the Suzerain of *Ch* \*ah, however, has resulted in a new and united front between the two regions against the remaining independent Ylii worlds.

It believes the human war will either help further unite the Kafers—or keep the Over-Suzerain busy until it and the *Ch* \*ah Suzerain have completed their conquest.

*Coordinates:* X: -20.8 Y: -44.1 Z: -6.3 *Type:* G0 *Mass:* 1.04 Sol *Luminosity:* 1.21 Sol  
*Radius:* 1.03

**HC-4 9701-111:** In ages past, the star was cooler than it is now. As the star grew hotter, land-dwelling life retreated up the slopes of the numerous mountain ranges, where temperatures remained bearable. Today, life exists mainly in the seas and above the 2000-meter level of the mountains, but the lowland regions support microbes and hardy bioforms outwardly similar to Terran cacti and insects.

The Kafers have colonized the world, though the rugged terrain has precluded extensive exploitation. Mines exist in some mountains, and mining outposts have been established in some lowland desert valleys. The total planetary population numbers some five million Kafers.

*Notable Sites and Features:* Notable sites and features of Mountainous One include:

- *Mountains of Dawn:* This world is remarkable for its spectacular mountain ranges. The highest range on the planet, called "Mountains of Sunrise" in Kafer reports, stretches halfway across the world north to south. Its peaks average 8000 meters, but many exceed 12,000 meters.

- *Distinct Biospheres:* Of interest to xenobiologists, evolution has proceeded on this world for millions of years in distinct ecosystems isolated from one another by the inhospitable lowlands between the mountain ranges. While all life forms on the planet share common ancestors, the branchings of each separate evolutionary line occurred as much as 100 million years ago, resulting in incredibly diverse forms among native species.

*Kafer Name:* *Kaa'a'ah* ("Mountainous One") *Mean Orbital Radius:* .86 au *Period:* .782 year (285.6 days) *Rotational Period:* 43h 54m 49.9s *Equatorial Diameter:* 10,785 km (.93 Earth)  
*Circumference:* 33,882.1 km *Mass:*  $3.3 \times 10^{27}$  (.549 Earth) *Density:* 5.012 gm/cm<sup>3</sup> (.91 Earth)



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*This system (Kafer name: Arrach\*ah) has seven planets. Planet II (described below) is Earthlike in most respects, though somewhat smaller and drier than Terra. Planets I and III are airless and barren, though both support Kafer mining settlements. Planets IV through VI are gas giants, while the highly eccentric planet VII is little more than a large and very cold snowball.*

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*Surface Gravity: .768 G Escape Velocity: 8.6 kps Axial Inclination: 12° 14' 16" Orbital Eccentricity: .001 Hydrographic Percentage: 53% Mean Temperature Range, 3000 meters: 25°C Magnetic Field:  $1.2 \times 10^{-4}$  gauss, inclined at 5° to the pole*

*Atmosphere: Pressure at Sea Level: 601 mm Hg or .802 bar Pressure at 3000 meters: 481 mm Hg or .642 bar Partial Pressure O<sub>2</sub>: .145 atm Partial Pressure O<sub>2</sub> at 3000 meters: .116 Constituents: N<sub>2</sub>: 79.08% O<sub>2</sub>: 18.12% Ar: 1.53% O<sub>3</sub>: 1.25% CO<sub>2</sub>: 373 ppm Other Constituents, including Ne, CO, NO, SO<sub>2</sub>: Less than 300 ppm*

## ONEIL 723

This system (Kafer name: Arrach\*ah) has seven planets. Planet II (described below) is Earthlike in most respects, though somewhat smaller and drier than Terra. Planets I and III are airless and barren, though both support Kafer mining settlements. Planets IV through VI are gas giants, while the highly eccentric planet VII is little more than a large and very cold snowball.

**Special Note:** Oneil 723 is ruled from the neighboring star system of Kaa'a'ah (HC—4 9701). It is particularly important to the Kafers, for it forms the central link in a nexus of 7.7-light year transportation routes among six different stars. The remaining population of Ylii is estimated at 10 million. There are currently 20 million Kafers in the system, most of them in one of five colony cities scattered across the planet's surface.

*Coordinates: X:-23.4 Y: -47.2 Z: -7.2 Type: K2 Mass: .72 Sol Luminosity: .284 Sol Radius:*

**Oneil 723-11:** Enlightened One is typical of the Ylii worlds conquered by the Kafers in their centuries-long campaign against that ancient race. Once an outpost of that civilization, it was conquered by Kafers from the HC-4 9701 system approximately a century ago, after a long period of trade and intermittent raids.

*Notable Sites and Features:* Notable sites and features of Enlightened One include:

- *Pillars of the Sun:* An ancient Ylii ruin, a line of spidery-thin stone pillars along the basin rim of a vanished sea. Many have been torn down by Kafers in search of building materials, but numerous columns remain. Their original purpose is unknown. Numerous mounds and tells suggest thousands of buried city ruins lie along the edge of the sea bed, but none have been excavated.

- *Temple of the Sky:* Another Ylii ruin, with an age estimated at over 100,000 years. It resembles a jet-black, five-sided, truncated pyramid. The sole surviving Ylii colony exists 10 kilometers east of this structure under close Kafer supervision. Fifteen other settlements existed on this world until Kafer nuclear attacks incinerated them.

*Kafer Name: Arrach\*ah ("Enlightened One") Mean Orbital Radius: .54 au Period: .468 year (170.8 days) Rotational Period: 27h 21 m 41.6s Equatorial Diameter: 11,927 km (.93 Earth) Circumference: 37,469.8 km Mass:  $4.6 \times 10^{27}$  (.772 Earth) Density: 5.211 gm/cm<sup>3</sup> (.94 Earth) Surface Gravity: .883 G Escape Velocity: 9.88 kps Axial Inclination: 15° 34' 31" Orbital Eccentricity: .004 Hydrographic Percentage: 36% Mean Surface Temperature Range: 15°C Magnetic Field: .03 gauss, inclined at 8° to the pole*

*Atmosphere: Pressure at Sea Level: 667mm Hg or .889 bar Partial Pressure O<sub>2</sub>: .137 atm Constituents: N<sub>2</sub>: 82.33% O<sub>2</sub>: 15.4% Ar: 2.23% CO<sub>2</sub>: 305 ppm Other Constituents, including Ne, CO, NO, SO<sub>2</sub>, Or Less than 300 ppm*

## HC-241124

This star is brighter and hotter than that of the Kafer's homeworld. It supports a family of 14 planets. One of these, planet V, is perfectly suited for Kafer habitation and has been heavily colonized. The inner four worlds are all airless, barren, and hot. The outer worlds are the usual mix of gas giants and frigid balls of ice and rock. Planet VI is a failed core: a massive world with an icy surface and a methane-ammonia atmosphere, but too small to be classified as a true gas giant.

**Special Note:** This system is the regional capital (Kavach\*) of one of the nine Suzerains. The Suzerain is a Kafer called V'ded'ah (Great One), and it controls four other star systems. These include the G6 system called Da'ven\*ah (DK-26 2485), which has another important Kafer colony on it—the M1 system called Ho'kan'ah (BK-5 9201) which has an important source of heavy metals, and the Yali'ah (HC + 25 1902) system only recently captured from the Ylii. V'ded'ah's forces share with those of Vakach\* the Frontier against the Ylii.

Like *Vakach \**, *Vded'ah* is among the majority of Kafer Suzerains who favors war with the humans, though it has different motives. *Vded'ah* believes that it can defeat the Ylii on its own, with its own fleet, and the industrial base it has created at *Ch\*\*ah* could make this a real possibility. It and its predecessors have been stopped in the past due to outbreaks of war with other Kafers, mainly those of nearby *Arrach \*ah* (Oneil 723). Long negotiations and exchanges of social combat with *Vakach \** of *Arrach \*ah* may have finally ended this problem.

If it succeeds in conquering the Ylii worlds, *Vded'ah* will be the most powerful of all the Suzerains, with power enough to forge new alliances and dominate the Associative to its own ends. The human war will preoccupy Gamma Serpenti long enough for *Vded'ah* to complete its own plans without interference from the rest of the Associative.

*Coordinates:* X: -17.3 Y: -47.1 Z: -15 *Type:* F2 *Mass:* 1.54 Sol *Luminosity:* 6.3 Sol *Radius:* 1.58

**HC-24 1124-V:** The world called by Kafers "Struggle One" (a better translation might be "Place of Struggle") is the one world among all of the Kafer domains most like their homeworld. Conditions are harsh here, with both climactic and biological extremes driven by the fierce radiation of the system's star. Most of the surface is desert, though broad expanses of steppe, savannah, and jungle exist in the areas around the planet's three small, interlinked and landlocked seas.

The environment is harsh. The sun powers intense radiation belts (the local equivalent of the van Allen Belts) which make heavy magnetic shielding necessary for all ships venturing into the inner system. A spaceport in deep space beyond the orbit of the tenth planet serves as a transfer point for ships not so equipped and provides shuttle and freighter runs in to the planet. Life on the surface is possible only because of the shielding effect of the world's magnetic field, and because of the high levels of ozone, especially in the upper atmosphere, which absorb much of the more harmful radiation wavelengths. The local aurorae are even more spectacular and brilliant than the ones on the Kafer homeworld, though the Kafers are as blind to these as they are to those at Gamma Serpenti.

A thriving civilization has been established in this system. The inner worlds and the moons of *Ch \*ah* are mined for raw materials, and huge orbital factories and powersats make up most of the system's industry. On the surface, large areas are irrigated by desalinated seawater and given to agriculture. With so much of the local industry in space, there is little problem with pollution on the world's surface. Merchant ships supply food and machine parts to half of the Kafer sphere. *Ch \*\*ah* may be the most powerful of the semi-autonomous Kafer regions, solely because of the strength of its industry.

*Kafer Name:* *Ch \*ah* ("Struggle One") *Mean Orbital Radius:* .242 au *Period:* 3034 years *Rotational Period:* 24h 04m 01.8s *Equatorial Diameter:* 12,386 km (.97 Earth) *Circumference:* 38,911.8 km *Mass:*  $5.4 \times 10^{27}$  (.902 Earth) *Density:* 5.439 gm/cm<sup>3</sup> (.99 Earth) *Surface Gravity:* .957 G *Escape Velocity:* 10.72 kps *Axial Inclination:* 4° 48' 13" *Orbital Eccentricity:* .013 *Hydrographic Percentage:* 27% *Mean Surface Temperature Range:* 35°C *Magnetic Field:* .68 gauss, inclined at 1° to the pole *Satellite:* 2

*Atmosphere:* *Pressure at Sea Level:* 742mm Hg or .989 bar *Partial Pressure O<sub>2</sub>:* .144 atm *Constituents:* N<sub>2</sub>: 81.05% O<sub>2</sub>: 14.64% O<sub>3</sub>: 3.24 Ar: 1.03% CO<sub>2</sub>: 239 ppm *Other Constituents, including Ne, CO, NO, SO<sub>2</sub>:* Less than 300 ppm

## THE WORLDS OF THE YLII

The Ylii are a non-human intelligence which have had sporadic (and often violent) contact with the Kafers for at least three centuries. They are described in detail in the chapter of this Sourcebook entitled "The Ylii."

At one time, the Ylii ranged far and may have visited worlds throughout what is now Kafer and human space, but they do not appear to have established permanent colonies. At the time of first contact with the Kafers, they had colonies or outposts on worlds of only seven systems: BK-20075 (M2), HC+3 1919 (M7), DK+21 6825 (K2), Oneil 723 (K2), HC+25 1902 (K2), DK+32 2390 (M2), and DK-33 1023 (K2). After three centuries of interrupted war and almost continual raids, they now possess only three systems: their colonies on DK+32 2390 and DK-33 1023, and their home system of SS-27 6854 (called *Rrach Yali'ah* by the Kafers).

There is little hope that they can last for long if *Vded'ah* and *Vakach \** are able to mount a major and coordinated offensive against them.

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*At one time, the Ylii ranged far and may have visited worlds throughout what is now Kafer and human space, but they do not appear to have established permanent colonies.*

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# The Politics of Power

## CH\*GH'NG

Regional Capital: *Gamma Serpenti-III* Associate Worlds: *Gamma Serpenti-IV*, *Ross 508*, *AC+18 1890-112*

## TRIUMPHANT DESTINY

Regional Capital: *Shsh'ah "Wet One," DM-23 2786* Associate Systems: *DM+ 24 2786*, *DM+24 2733 A and B*, *DM+16 2658*, *DM+25 2874*, *DM+19 2881*

## GVAH

Regional Capital: *Ch\*-'ah, Lambda Serpenti-IV* Associate Systems: *Formerly Ross 508*. Also *L1346-53* and *L768-119*

## V'SCHCH\*AGHIK (WHAT STRIKES)

Regional Capital: *Ch\*'ah, "Place of Struggle" (BK+00 2334)* Associate Systems: *HC-6 2111*, *BK-1 1423*

## VV'GHAHTR (SKY SEIZER)

Regional Capital: *!veh'ah, "Cloudy One", DM+13 2901 II* Associate Systems: *BK+75675*, *BK-80854*

## VAHAA CHOK'AN (WILEY CUNNING)

Regional Capital: *Da've'ah, "Dry One" (Chien 112)* Associate Systems: *HC+ 11 9580 (planetless)*, *BK+10 1245*, *Chien 414*

The Kafer Associative is run by nine *Gnich \*ah*, or Suzerains. Each is a more or less independent entity with its own empire of worlds, its own industries and agricultural planets, and its own fleets and armies. Each rules its part of the Associative from a *Kavach \*!*, or regional capital.

Wars between Suzerains have been frequent throughout Kafer history. Since the Kafers began expanding into space, however, the Suzerain of Gamma Serpenti, described in this Sourcebook as the Over-Suzerain, has generally been able to avoid all-out civil war.

A crisis has arisen of late, however. The current Over-Suzerain is not a particularly bright or capable individual, and a number of the other Suzerains are both bright (for Kafers) and ambitious. This is a delicate moment in Kafer history. Depending on the outcome of the current round of political struggles within the Associative, the Kafers could unite as a single race and expand outwards in a campaign of conquest which could carry them across the Galaxy...or they could turn inwards upon themselves.

Should the latter happen, they will be easy prey for any other species which comes along.

If the former happens, it could well be impossible ever to stop them.

The following describes each Suzerain, the worlds it controls, the ambitions of each, and the politics it is pursuing to achieve its goals.

## CH\*GH'NG

*Ch \*gh'ng* is the Over-Suzerain by virtue of the fact that it controls the Kafer home system at Gamma Serpenti. It is not particularly bright, though it has aggressive and able lieutenants in its command. It is aware that other of the Suzerains are quite bright, aggressive, and ambitious—especially Triumphant Destiny. It mistrusts these others deeply, partly with good cause, but largely because of the typical Kafer fear/hate reaction to what it perceives as smart barbarians. It was partly for this reason that it seized two star systems neighboring Gamma Serpenti, but belonging to the domains of another Suzerain, one allied with Triumphant Destiny. Control of those two systems could weaken Triumphant Destiny's allies and drive a wedge between them.

In the past, *Ch \*gh'ng* has endeavored to prevent the Kafer Associative from joining together in an all-out campaign against either the Ylii or the humans. It has reasoned that such a war could unite the entire Kafer race...and it realizes (however dimly) that it would not be able to maintain its power and control should that happen. It attempted to sway opinion among the other Suzerains against Triumphant Destiny's plan to attack the humans, and failed. It is now beginning to realize that, should Triumphant Destiny fail beyond the Gateway Stars, Gamma Serpenti itself will be open to attack and invasion.

## TRIUMPHANT DESTINY

Triumphant Destiny is a true genius (and would be one even among humans). It is permanently bright enough to conceive of and maintain long-range plans, and to dream of changing the Kafer social order. It is also ambitious and believes that, ultimately, it should replace the (comparatively) stupid and ineffectual *Ch \*gh'ng* as Over-Suzerain, and unite the entire race under its own rule.

It was also bright enough to immediately recognize the danger presented by the humans when they were first contacted at Arcturus several years ago. It believes that this new danger can be used to its advantage and has been using the threat of the humans as a means to unite the other Suzerains behind it in a war against them.

So far, it has won the support of four other Suzerains, enough to shout down the opposition and get things moving. Since Triumphant Destiny's worlds are the closest to the human sphere, it knows that it will take the forefront of the campaign against the humans. It hopes to keep playing one Suzerain off against another, maneuvering them until it can dominate the Associative.

## GVAH

*Gvah* (Name of Names) was largely uninterested in the power struggle between Triumphant Destiny and *Ch \*gh'ng*. However, it agreed with Triumphant Destiny that the humans presented



an ominous threat to the Kafer species, one which had to be met immediately with as much force as could be mustered, and destroyed. Its decision was the deciding one which turned the tide in Triumphant Destiny's favor.

Over-Suzerain *Ch \*gh'ng* has assumed authority over the defense of the two systems AC + 18 1890-112 and Ross 508 (both part of *Gvah's* domains), cutting Lambda Serpenti off from the other two of its associative systems. This has drastically weakened *Gvah's* industrial base, and left it feeling as though it is the personal target of the Over-Suzerain. At this point, it is vacillating between continuing to support Triumphant Destiny in the anti-human war (its fleets have been passing through Ross 508 bound for DM + 16 2708), or openly rebelling against *Ch \*gh'ng*.

### **V'SCHCH \*AGHIK (WHAT STRIKES)**

What Strikes is a staunch supporter of *Ch \*gh'ng* against Triumphant Destiny. Its loyalty is almost certainly a mask for deeper, more sinister ambitions, for it sees itself in a crucial, central position within the Kafer domains. For now, it is biding its time in order to see what opportunities Triumphant Destiny's plans unveil.

### **VV'GHAHTHK (SKY SEIZER)**

Sky Seizer initially supported Triumphant Destiny against *Ch \*gh'ng*, but may be having second thoughts now. It sees itself as the logical ruler of Kafer destiny, and does not trust Triumphant Destiny's motives, or intelligence.

### **VAHAA CHOK'AN (WILEY CUNNING)**

Wiley Cunning is very nearly in open rebellion against *Ch \*gh'ng* and the Associative. It has opposed Triumphant Destiny's plan against the humans because it understands that such a war could lead to a more united Associative, one which may take a dim view of Wiley Cunning's plans for creating its own Kafer empire apart from the rest of the Associative. It has also been discussing the possibility of an alliance with other Suzerains, especially with *Rrrah* of HC+ 13 232 B.

### **RRRAH**

*Rrrah* controls one of the more powerful of the Kafer domains. As such, it is one of the more conservative of the Kafer leaders, and supports *Ch \*gh'ng* more because that Kafer is the Over-Suzerain of Gamma Serpenti than for any other reason. Besides, the humans are far from HC + 13 232 B, and pose little threat. It would not be upset to see Suzerains such and Triumphant Destiny and Name of Names swallowed by the humans.

### **VAKACH\* (FIGHT-FOR-FUN)**

*Vakach \** is one of the two Kafer Suzerains who has been fighting against the Ylii. Like other Kafers, it has never perceived the harmless, peaceful Ylii as a threat...but a recent increase in guerrilla activity and raids against Kafer facilities on conquered worlds has convinced it that the Ylii do, in fact, pose a threat against the Kafers. It would like to see the entire Kafer race united against the Ylii. It has supported Triumphant Destiny's war against the humans because that plan would, at last, unite the Kafers, allowing them to turn against the Ylii, once and for all, after the humans (who are, after all, more immediate dangers) are defeated.

### **V'DED'AH (GREAT ONE)**

*Vded'ah* is another Kafer with a keen, natural intelligence and a fine understanding of the art of intrigue. It is also intensely distrusted by the other Suzerains, especially by *Ch \*gh'ah*. It is the second Suzerain who has been engaged in an ongoing (if intermittent) war against the alien Ylii. It, however, wants to conquer the Ylii less because they represent a threat than because it sees in the Ylii planets additions to its own already powerful industrial base. With the riches of its home system, plus the remaining three Ylii planets, and the slave labor which could be marshaled there, *Vded'ah* believes that it could emerge the most powerful of the Kafer Suzerains, the leader of the entire race.

It has supported Triumphant Destiny's plan principally because the human war will leave it free to complete its plans against the Ylii. It also expects that one of its chief rivals—Triumphant Destiny—could be killed in the coming war, which would make things easier for it.

### **RRRAH**

Regional Capital: "Ch\*-ch\*'vee'ah" (HC+ 13-232 B) Associate Systems: BK+15 3434, HC+18 9881, SS-22 4654 A & B, SS+28 9357, DK+29 3074, and HC-30 0340

### **VAKACH\* (FIGHT-FOR-FUN)**

Regional Capital: Kaa'a'ah, "Mountainous One" (HC-4 9701) Associate Systems: BK-2 0075, HC+3 1919, Oneil 723, DK+21 6825, and SS-22 4654 A&B

### **V'DED'AH (GREAT ONE)**

Regional Capital: Ch\*ah, (HC-24 1124) Associate Systems: DK-26 2485, HC + 25 1902, BK-5 9201, DM-21 4352 (planetless)

### **USING KAFER POLITICS**

*The player characters will not, of course, be aware of the intricacies of Kafer politics. The referee may, however, introduce elements of these politics into play in such a way that the players might be able to take advantage of them.*

*For example, humans captured by a Kafer party might discover that their captors belong to two separate groups with different loyalties. An argument among the Kafers over which Suzerain's lieutenants get to question the prisoners first could erupt into an all-out battle, and give the humans a chance to escape.*

# The Ylii

## YLII NPCS

*The referee may wish to give the player characters an opportunity to meet one or more Ylii. Ylii are always NPCs in 2300 AD campaigns, and can serve as a means for the referee to communicate certain information (such as Kafer plans or positions) to the players. While there is considerable variation from individual to individual, the sets of stats on the opposite page can serve as guidelines for creating individual NPCs of each of the various genera of Ylii.*

This chapter describes the Ylii, a non-human civilization which has existed in contact with the Kafers for approximately three centuries.

## OVERVIEW OF THE YLII

The Ylii are homeothermic, oxygen-breathing, polytaxic bipeds native to a planet circling a K2 V star. In outward appearance, they are roughly humanoid, with two legs and two arms. Their joints are articulated in the same manner as in humans, though their arms are considerably longer, and their legs somewhat shorter.

The Ylii are polytaxic, meaning that the civilization is made up of individuals from several related genera sharing their home planet. This can best be pictured by imagining what it might be like if gorillas (genus *Gorilla*), chimpanzees (genus *Pan*), orangutans (genus *Pongo*), and humans (genus *Homo*) had all evolved intelligence on Earth and cooperated in building a planetary society. While all Ylii share certain characteristics, there is a wide range of difference from one genus to another. The Kafers, with little understanding and less interest in the biological sciences, have not yet understood this, and assume that all Ylii are the same; for example, that differences in size, reflect differences in age.

The members of one branch of the Ylii, at least, are superb technicians. Computer science is highly advanced, with the result that Ylii computers are far smaller, faster, more efficient, and more powerful than the clumsy devices the Kafers used before their contact with them. Ylii computer technology is now slowly revolutionizing certain aspects of Kafer technology, including stutterwarp computer design and advanced electronics.

## GENERAL YLII PHYSIOLOGY

Though the Ylii vary widely from genus to genus, all are related in the same sense that humans, gorillas, and chimpanzees are all members of the order *Primates*, and all share certain features.

All walk upright, though some will occasionally revert to four-limbed walking gait. All have two-fingered, two-thumbed hands and feet. Most genera are equally facile with hands or feet. Both fingers and thumbs can flex in multiple joints through a full 270 degrees, and have limited mobility rotating back and forth, making their hands far more flexible than human or Kafer hands. Equipped with a superb natural sense of balance, it is not unusual to find a Ylii standing on one leg (or hanging by one hand or hand/foot from an overhead support) and performing some complex task with three hands.

Ylii heads are quite small and almost completely taken up by two large, dark eyes. Natives of a world circling a K2 star, their visual range is centered in the longer wavelengths of the visible light spectrum, and they can see well into the infrared. Blue wavelengths are invisible to them (as red wavelengths are to Kafers), but they have excellent night vision. Their large eyes are sensitive to low levels of visible light, which means that a star- or moonlit scene would be bright enough for them to make out considerable detail. At the same time, their infrared vision would allow them to see objects (especially warm-bodied life forms and artifacts such as hot vehicle engines) by the heat they give off. A corollary disadvantage to their eyesight, of course, is that they have difficulty adjusting to bright light, and (without protective goggles, at least) are quite blind at light levels which Kafers find comfortable.

Ylii heads are little more than sensor clusters, in fact. They include the eyes, which are set into deep, thick bony rings, two ears (set just below to either side of the eyes), and sensors (anchored to the delicate and motile tufts of hair around the ears) for detecting balance and air pressure. The Ylii brain is protected by bone and forms part of the spinal column. In human terms, the Ylii brain is located approximately where the human heart is, but deeper in the chest. The four-lobed lungs are located in the upper chest in front of the brain case, while a six-chambered sequential pump, answering to a human heart, is located in its upper abdomen. Breathing is through a set of four slit openings in the upper chest. The Ylii mouth is in its abdomen, directly adjacent to its stomach, and is invisible except during eating.

Most Ylii are covered with smooth, silky fur of various lengths and colors, though one genera is hairless. All genera are intelligent, though the way each thinks can vary. This specialization in types of thinking has resulted in some genera being found performing some tasks, others performing other tasks, leading many Kafers to believe that individual Ylii are specially bred for certain purposes.

Ylii speak by manipulating the passage of air through their "nostrils" in their upper chest. Their language is fluid, high-pitched, and has a definite nasal quality, like French. At least one genera produces competent linguists, and many can converse freely with Kafers in their own tongue.

Ylii in general are far more dexterous than either humans or Kafers. Their reactions are quick too, despite the fact that their homeworld has a lower surface gravity than Earth or Gamma Serpenti-III. Both features are almost certainly the product of their ancestry. It is believed the Ylii are descended from arboreal gatherers. Even now, many of their cities are built as a series of slender, interconnecting towers, and travel within the city consists of passing gibbon-like from building to building along networks of cables strung as much as a kilometer above the ground.

**YLII GENERA**

The Ylii can be divided into a number of different genera on the basis of body type and psychological profiles. While the Kafers do not recognize the taxonomic basis for the differences between various Ylii, they are aware of the differences and have given a name to each general type. The designations would be meaningless and ponderous to humans, and so in this chapter the different types will be classified "Alpha," "Beta," "Gamma," and so on.

The following paragraphs describe the major features of the various Ylii genera.

**Genus Alpha:** With the possible exception of Epsilons (see below), Alpha Ylii are the Ylii most commonly encountered off the homeworld. They are the most curious of all the genera, as well as the hardest, and it is they who have made up the largest percentage of both exploratory ship crews and offworld colonies. In early, symbiotic groups millennia ago, they may have been a primitive tribal unit's scouts and foragers. They are somewhat aggressive, though this expresses itself more in a will to survive than in combativeness. Kafers use Alphas as general slave labor in mines and factories.

In appearance, Alphas are quite tall, averaging 1.5 meters in height, with glossy brown to brown-grey fur covering their bodies completely except for their hands and feet, which are black or dark grey in color. They wear no clothes, but may wear a belt with attachment points for tools and small devices.

**Genus Beta:** Betas have much of the Alpha's inquisitive nature, but are more mechanically inclined, and are frequently encountered as engineers and technicians. They apply their natural dexterity to the maintenance and construction of machines with great skill, and are responsible for such technological wonders as the advanced Ylii computers. They are also pliable and unaggressive, and not prone to resisting authority. Betas are highly prized by the Kafers for their engineering skills, and for the fact that they will do whatever they are ordered to do. For a long time the Kafers thought these to be Ylii children because of their size.

Betas are short for Ylii, averaging a meter or slightly less in height. They are covered by short brown fur, which is quite sparse on their heads, hands, and feet. Their skin is red-brown to red-grey, and somewhat wrinkled. They are not normally clothed, but often wear a kind of harness which carries tools and artifacts.

**Genus Gamma:** Gammas are workers. Originally, they may have served as a kind of warrior caste in primitive Ylii society, but that purpose has long since been lost...possibly as the result of a deliberate Ylii breeding project. They are most often found in Ylii factories and manufacturing centers, most of which are either underground or in orbit. Though they may once have been warriors, they are docile and almost simple-minded today, employed by other Ylii genera in construction and heavy labor.

These are the largest and most massive of the Ylii, averaging 1.8 meters tall, with a heavy, stocky build which may exceed 80 kilograms in weight. They are also quite strong, but not as intelligent as other genera. They are covered by short, black or charcoal-grey fur, except for their hands and feet. Their skin is black.

**Genus Delta:** Deltas may be the most intelligent of the Ylii, though they are almost never seen. It has been suggested that Deltas were the original intelligent species on the Ylii homeworld

**YLII GENERA**

	Alpha	Beta	Gamma	Delta	Epsilon
Size	8	4	11	8	9
Str	5	3	8	5	6
Dex	15	18	12	16	75
End	8	5	10	2	7
Dex	8	10	12	10	5
Int	10	8	5	15	10
Elo					
Edu					

hundreds of thousands of years ago, and that they raised others of their non-intelligent relatives to intelligence in an age-long series of breeding or genetic engineering experiments.

Deltas are almost completely hairless, except for scattered patches on their bodies and across their backs. Their skin is black to dark grey, and quite wrinkled. They are even more sensitive to light than other Ylii, and may, in fact, be entirely nocturnal in nature. Like Kafers, they have excellent memories, and much of the learning of the race was passed on from Delta to Delta down through the ages until the advent of electronics made computers possible. Many Deltas are teachers.

Only a handful of Deltas have ever been captured by the Kafers, indicating that they rarely leave their home planet. Most died soon after capture.

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*If they have a mystical or philosophical side, it could be expressed in their belief that they are part of a complex and intensely interactive universe. Blind or willful attempts to upset what humans would call the "balance of nature"—through deforestation, industrial pollution, even littering, would be viewed as mental aberration (or outright insanity) by any Ylii.*

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**Genus Epsilon:** Epsilons are a distinct genus, but share many of the qualities of several of the others. They are mildly aggressive, highly social creatures, existing in "pods" numbering hundreds of individuals, and in enclaves within major Ylii cities and communities. Epsilons' position in ancient Ylii society is unclear, but they may have formed the social nucleus which bound the entire unit together. They may also have served as the communications for a large and far-flung Ylii tribal group. Presently, they fill numerous service functions, and may be found as the equivalents of merchants, traders, and shopkeepers, engaged in light labor, or administering what passes for a Ylii city's bureaucracy. (These comparisons should be used carefully: there are few Ylii social, business, or economic structures which closely parallel human counterparts.) They may be the most numerous of all Ylii today.

Epsilons have fur which ranges in color from light grey to almost pure white. They have black or charcoal masks around their eyes and black hands. They average 1.2 meters in height, and frequently adopt a four-footed gait when moving across the ground.

**Other Genera:** All together there are 33 Ylii genera, though those listed above are representative of the variety of Ylii genera. Each fulfills distinct yet overlapping services within the Ylii community. At least one genera could be considered a scavenger, and is responsible for carrying off the community's garbage and for disposing of (eating) the dead. Another, the Zetas, are most often found as farmers, though other genera (Alphas and Gammas, especially) also participate in gathering crops, lots like to build things, and it is possible that they are responsible for some of the monumental stonework artifacts and buildings discovered on numerous worlds in the region.

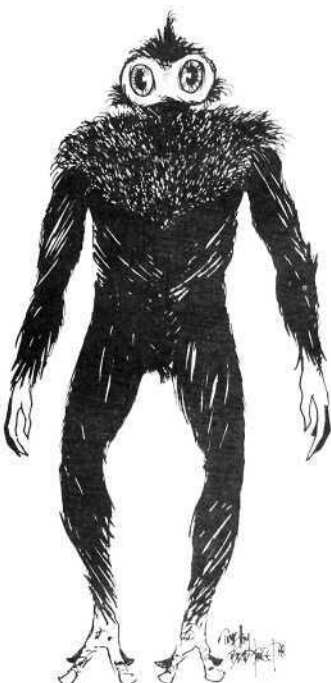
Interestingly, none of the Ylii genera specializes in combat (though the Gammas may have fulfilled that function long ago).

## YLI PHILOSOPHY

The Ylii do not appear to have developed anything approximating religion. Early manifestations of the supernatural—lightning and thunder for example—were seen as aspects of the world which was accepted as a whole of which they were a part. The rise of science came about as a product of their intense curiosity as they probed the nature of that world.

If they have a mystical or philosophical side, it could be expressed in their belief that they are part of a complex and intensely interactive universe. Blind or willful attempts to upset what humans would call the "balance of nature"—through deforestation, industrial pollution, even littering, would be viewed as mental aberration (or outright insanity) by any Ylii.

Alpha



## YLII PSYCHOLOGY

The Ylii are quite intelligent as a culture, though some genera (Gammas, for instance) are individually stupid by human standards. Of importance to humans attempting to understand them, is the fact that the entire collection of Ylii genera are highly cooperative and socially oriented. They have no concept at all of "the race" because, from their point of view, a single Ylii race does not exist.

Instead, Ylii serve what might be termed the social order. In early times, Ylii tribes developed around the concept of individuals from each genera contributing to the welfare of the whole. As a result, Ylii today are more concerned with the existing order than with race—a psychological twist which the Kafers have unknowingly exploited to their advantage. The highly valued Betas are moderately intelligent, but completely unaggressive and, more importantly, are more concerned in reserving the existing social structure than in helping other Ylii. For this reason, Beta slaves will continue programming a Kafer battleship's computers in an attack against a Ylii world and neither question the fact nor consider sabotaging the equipment, for the simple fact that, once conditioned, their first loyalty will automatically be to the group they find themselves in (Kafer masters and other slaves) and *not* their former comrades.

## YLII HISTORY

The Ylii are a very old race. They may have attained space flight as far back as 100,000 years ago, though any such dates are extremely uncertain. Ruins of this ancient, starfaring civilization have already been discovered by humans in the form of vast, buried ruins and stone monuments on Ross 863 I and DM + 5 3409 I, both in the American Arm. Xenoarcheological studies of these ruins have, so far, yielded no clues to the builders, their culture, or their technology; and so far at least, it is assumed that the two sets of ruins were constructed by two separate species, probably native to those worlds. Other ruins are waiting to be discovered on worlds in star systems not yet reached by human explorers, including Ross 867, DM + 3 3465, and DK+ 17 4521. The Kafers have come across many Ylii ruins in their expansion, including BK + 00 2334, HC-6 2111, BK-1 1423, and BK-2 0075. It was the discovery of ruins on BK + 00 2334, only 5.5 light-years from Gamma Serpenti, which first revealed to the Kafers that theirs was not the only intelligence in the universe. This discovery had a great deal to do with shaping early Kafer exploration into the galaxy, making them at once more cautious and eager to challenge these unknown beings to a duel of survival with the Universe at stake.

The early, starfaring phase of Ylii civilization collapsed for reasons which are unknown, even by modern Ylii. It is likely that the early civilization was savaged by fierce, interstellar war. Though there are no signs of that war today, it might be guessed that their modern placidity is the result of deliberate gene tailoring experiments with their own race. Perhaps the only thing which could bring a race to adopt such extreme self-corrective measures would be the threat of a final war of extinction. A theory which will be developed one day (assuming humans and Ylii both survive to meet at some point in the future) is that the big, massive Gammas were warriors in a civilization which dictated individual castes based on an individual's genus and species. Threatened with a war which could end all Ylii life, Ylii scientists engineered the genes of all Ylii genera to make them less combative and aggressive.

The early space-faring culture collapsed completely. Modern Ylii were exploring worlds as far from home as HC + 3 1919 by 300 years ago, when they encountered the Kafers for the first time. It is possible that the genetic tinkering of Ylii scientists tens of thousands of years ago saved the species; for if the Kafers had encountered a truly aggressive alien species, they would have mobilized at once and attempted to wipe them out. On the other hand, had the Ylii been aggressive enough, it might have been they which wiped out the Kafers.

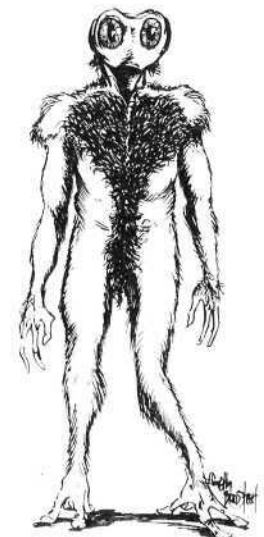
In any case, they responded to Kafer threats and raids with open handed goodwill and invitations to negotiate and trade. This baffled the Kafers, who expected that any intelligent species, whatever its shape, would be endowed with the same aggressive and competitive tendencies as they. Early Kafer war plans were thwarted by the simple fact that the Ylii refused to fight. Kafer battle plans often broke down since, without a significant threat, Kafers carrying out set orders tended to interpret those orders less intelligently than might otherwise be the case, and boredom and lack of combat led to frequent mutinies, jurisdictional disputes, and all-out civil war between Kafer factions.

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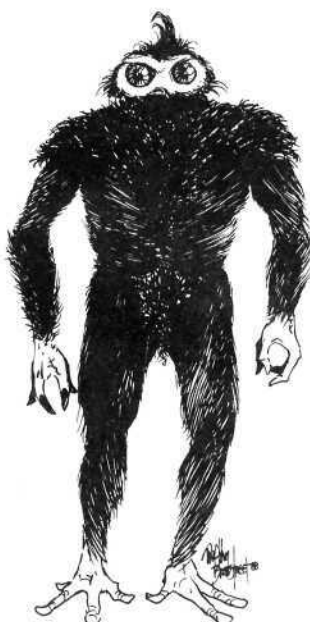
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Beta

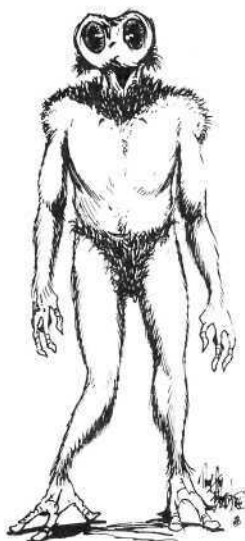




Gamma



Delta



In three centuries, the Ylii have lost the colonies they had established on HC + 3 1919, SS — 22 4654, DK + 21 6825, Oneil 723, and HC + 25 1902. Their only remaining colonies are on worlds in the DK + 32 2390 and DK - 33 1023 systems. Their home system of SS - 27 6854 lies on a transportation cul-de-sac beyond DK-33 1023. Large Ylii populations remain on many of these lost worlds, but they are virtual slave populations, subject to intense scrutiny by Kafer overlords, brutal treatment by Kafer soldiers, and frequent slave raids by Kafers in need of Ylii technicians and workers. The as-yet independent systems of DK + 32 2390 and DK — 33 1023 have been raided frequently as well, and are the focus of a planned Kafer drive from *Arrach\*ah* (Oneil 723) and *Ch \*ah* (HC-24 1124).

## YLII COMPUTER TECHNOLOGY

Ylii technology has always been high-tech and low-energy, with a minimum of environmental impact. That is, they developed various chemical fuels rather than burning off their forests, a necessary move since most of their cities were still in the trees at the time. They excelled at tunnel mining, but rarely engaged in strip mining which deforested and ruined large areas of planetary surface. Their factories tended to be small and underground, or located in deserts where solar power—developed early in their rise to technological prowess—was plentiful. Their move into space was probably largely the result of a need to gain raw materials and cheap energy off the planet, which they preferred to keep as close to its natural state as possible.

Electronics were discovered early in their history. Ylii Deltas, especially, seem to grasp number theory and the concept of logical algorithms easily; binary theory and computers were logical extensions of early Deltan philosophy.

Large numbers of Ylii today wear personal computers as part of their personal adornment. These typically are worn on a forearm and appear to be jewelry. They are powered by extremely tiny batteries or by the wearer's body heat. They perform a wide variety of functions from reminding the wearer of scheduled duties, to serving as personal communicators, to acting as linguistic translators. Indeed, the first breakthroughs in Kafer language are the result of decoding a Ylii computer discovered aboard the French deep-space outpost at Arcturus. Ylii computers have enabled the Kafers to make enormous advances in their own computer and stutterwarp drive technologies. It is the Ylii talent at microelectronics and computer programming which makes them valuable to the Kafers now. Kafer computers, and the programs which run them, tend to be massive and inflexible. Ylii computers are small, powerful, and flexible in their programming. Many can be programmed by voice alone and are designed to write new programs or change old ones by interpreting relatively simple vocal commands. The computer literally writes its own programs.

## YLII AND KAFERS

Few Kafers recognize the importance of the Ylii in Kafer civilization to date. Those which do maintain large numbers of the creatures in cool, dry, low light (for Kafers) environments. Until recently, Ylii were carried aboard most Kafer ships (except fighters). In order to keep the Ylii from being discovered and exploited by humans, most Ylii serving aboard Kafer warships are currently kept aboard battleships only, where they maintain Kafer electronics (for which they are far more suited than Kafers), and program Ylii-designed Kafer computers. It is quite possible that without the Ylii, the Kafers would not have been able to develop stutterwarp technology to as advanced a state as they have, and their computers would have remained hopelessly primitive.

The Ylii attitude towards their virtual enslavement by the Kafers varies with the genera. The most valuable Ylii are the Betas, who are docile, mild, and (to Kafer thinking) almost unintelligent. Unlike humans, they respond well to the typical Kafer approach of hitting them before giving an order to get their attention. This has the effect of conditioning the Betas, making useful and cooperative slaves of them. (Indeed, the Kafers seem to think of them as useful pets rather than slaves or war captives.) Gammas and Alphas are used as laborers, though the Alphas are more intelligent and less tractable than Gammas. Epsilons are difficult to maintain as large numbers of them are needed for the group to remain healthy. No Deltas have survived more than a few weeks of captivity. Kafer policy in raids on Ylii worlds or communities has been to seize Betas, Gammas, and Alphas, in that order of preference, and to exterminate the rest. So far, there has been no attempt to incorporate Ylii industry and technology wholesale into the Kafer civilization. Computers and electronics are generally stolen from Ylii sources and adapted by well-trained Betas.

## THE RESISTANCE

The Kafer war against the Ylii has been intermittent precisely because the Ylii have not responded as intelligent beings (from the Kafer viewpoint) normally respond to aggression. As a result, Kafer campaigns have been halfhearted and confused affairs, ending in combat between Kafer forces more frequently than in the conquest of another Ylii planet. However, the conquest of the last three Ylii planets, and the eventual extinction of the ancient Ylii race, are certainties, unless the situation changes soon.

The Ylii are aware of this, and have been working on the problem. Unable to put up more than a token resistance against the Kafers when they attack, Deltan scientists have been at work for the past several decades attempting to recreate through experimentation the almost-mythical Ylii warrior.

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*The Ylii attitude towards their virtual enslavement by the Kafers varies with the genera. The most valuable Ylii are the Betas, who are docile, mild, and (to Kafer thinking, at least) almost unintelligent. Unlike humans, they respond well to the typical Kafer approach, which is to hit them before giving an order to get their attention. This has the effect of conditioning the Betas and making useful and cooperative slaves of them. (Indeed, the Kafers seem to think of them as useful pets rather than as slaves or war captives.) Gammas and Alphas are used as laborers, though the Alphas are more intelligent and less tractable than Gammas. Epsilons are difficult to maintain because large numbers of them are needed for the entire group to remain healthy. No Deltas have survived more than a few weeks of captivity.*

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The various Ylii genera cannot interbreed. However, through genetic engineering, the scientists are attempting to tinker with the genetic structure of Gammas by introducing aspects of Alphas and Deltas, making them more aggressive and more intelligent. While it's too soon for positive results to have been obtained (they have not yet succeeded in creating a Gamma-Warrior which can reproduce), a more aggressive element has been introduced into the Gamma populations of DK + 32 2390, DK — 33 1023, and—before it was overrun a few years + 25 1 902. The Kafers have already noticed the increase in resistance and believe the Ylii war may be about to become "interesting."

Unfortunately for the Ylii, their attempt to redirect Ylii evolution may be too late, since they now occupy only three independent worlds. Given the chance (such as an active alliance with the humans), they might yet produce a new genera of warriors which could hold the Kafers at bay, or even turn the tide against them; but they are beginning the fight with no understanding of warfare, no body of military history or tactics to draw from, and weapons which are primitive compared to the Kafers.

An obvious weakness exists in the Kafer reliance on Ylii slaves, but the Betas have little interest in sabotaging their masters' computers in order to help their race. Indeed, few Ylii think in terms of "the race," but in terms of the present social structure. Betas, in other words, will continue to serve the existing social structure (i.e., their Kafer masters), instead of the (to them) dim and pointless concept of loyalty to a number of allied species. Attempts by humans to subvert the Betas to act against the Kafers in an overt or covert manner are almost certainly doomed to failure.

## YLIi ALLIES

*It is possible that the player characters in a 2300 AD adventure will become the first humans ever to encounter the Ylii, either as prisoners or as victors in a battle in a Kafer base or ship. The referee should play the encounter as a kind of mystery. It will take time and patience to learn the Ylii language, or to program a Ylii computer in a known human language. Betas will generally be uncooperative because of their indoctrination, while Gammas will be too stupid to provide much useful information. An exchange with an Alpha, however, could reveal to the players much about the Ylii race, including the fact that several Ylii worlds are still fighting for their freedom on the far side of Kafer space.*

*How the players employ this information is up to them and the referee. The news that the Kafers are engaged with another alien race would be good news to human intelligence organizations, who will no doubt attempt to learn more about them. Plans will no doubt be drawn up to allow humans to reach the Ylii worlds in order to help them in their resistance, and perhaps to coordinate military strategies.*

*Before such a plan can have any hope of yielding useful results, the humans will have to learn about Ylii recent genetic experiments. Attempts to recreate the lost warriors of the Ylii race are, at this point, the Ylii's only hope for survival.*

# Fun With Kafers

This chapter describes some of the possibilities for using this material in adventure sessions.

## MUTINY

As is evident from the information in this Sourcebook, Kafers have something of a problem controlling themselves in the face of boredom and inactivity. The greatest problem faced by Kafer military leaders is that garrisons at out-of-the-way outposts are unstable, and could easily kill their leaders and set off on their own in search of danger and self-fulfillment.

## PAX

Players may be familiar with the Terran organization known as *Paix Avec le Xenos* or PAX. Members of this organization can be pictured as liberal do-gooders, always insisting that no intelligent being can be evil if one only takes the time to understand them.

This is their position concerning the Kafers. They feel that somewhere, somehow, a dreadful misunderstanding has occurred, which forced the Kafers to attack humans, possibly in self-defense. If only we could understand the way Kafers think, they say, we could discover the misunderstanding and make things right. After all, no truly intelligent being would want war.

The player characters might find themselves hired by PAX as bodyguards, workers, or assistants in an attempt to establish contact with the Kafers in order to open a dialogue with them and get to know them. This could be accomplished in a number of ways: a group could approach the Kafers as envoys—allowing themselves to be captured, to put it simply—or they could attempt to make radio contact with French- or English-speaking Kafers, or they could attempt to capture a Kafer and use it as a messenger.

Such a mission would probably end with the characters getting captured and trying to escape. It might also give them the opportunity to talk with a Kafer such as Wiley Cunning, who might give them the impression that it is willing to cooperate with them. In any case, the scenario will give the players a chance to get to see lots of Kafers—up close!

## THE UNFOLDING MYSTERY

The Kafers should present a genuine mystery to **2300 AD** players. The nature of their intelligence, the reason for their sudden genius during battle, the reason for their behavior towards prisoners, artifacts discovered in abandoned Kafer camps, the fact that one Kafer (at least) understood Sartre, all could provide clues for clever adventurers.

This Sourcebook can be used by the *referee* to keep the Kafer NPCs in an ongoing **2300 AD** campaign consistent throughout a long series of adventures or a long campaign. Over the course of many encounters, the players may have the satisfaction of learning for themselves why Kafers are like they are.

As humanity finds itself thrown into a last-ditch struggle with this vicious and implacable foe, various military intelligence organizations will pay very well indeed for any information which could lead to a better understanding of these beings.

## POWER POLITICS

Communication with Kafers is difficult, and *understanding* them is even worse. However, the referee could use the material in this Sourcebook to allow the player characters to establish contact with one faction of the wildly divided Kafer leadership, in hopes of gaining military intelligence, or creating a schism within the Kafer ranks, which could help slow the Kafer advance into human space. This could be instigated by the humans (as in the "PAX" mission described above), or by the Kafers, possibly as a *ruse d'guerre*.

The *referee* should keep in mind, however, that while individual Kafer leaders are capable of treachery against others of their own kind, they have a race loyalty which will prevent them from betraying the entire Kafer cause to the humans. All Kafers, whatever their loyalties, will see humans as the ultimate enemies of all Kafers—the smart barbarians.

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# Kafer Sourcebook



umanity's explorations among the stars have brought it into contact with several alien species. All of these contacts have been peaceful, except for a short war against the Sung. Humanity had never met an alien species which presented a serious threat to its own species—until the Kafers.

Humanity's contact with the Kafers is probably the most significant event in human history since the Twilight War of the late 20th century. The encounter, like that war, could conceivably spell the end of the human race.

The *Kafer Sourcebook* contains all information necessary for the **2300 AD** referee to create campaigns and adventures involving the Kafers. It describes the physiology and psychology of the Kafers, concentrating on their unique intelligence, and explains why there can never be peace until either humanity or the Kafer population is destroyed.

Covering the origin and evolution of the Kafers, the *Kafer Sourcebook* goes into the details of the Kafer homeworld and explains Kafer motivations and drives, their history, their society and social structure, and their technology.

The *Kafer Sourcebook* details the political and governmental structure of the Kafer Associative, discusses the political motivations behind the current war, and explains why it will get worse.

The *Kafer Sourcebook* enables the **2300 AD**

referee to introduce new items of Kafer weaponry and equipment, as well as more complete details of previously described items. The equipment chapter is copiously illustrated (with some illustrations presented in full color). The players can be introduced to Kafer artifacts, which range from hand tools and small arms up to the *Sigma*-class starship. They can puzzle out the true function of the enigmatic "worry stone" often found in abandoned Kafer encampments or try to discover the technology behind the recently discovered "Kafer Computer Mark II," an advanced portable computer of chilling technological sophistication.

A full-color map of the Kafer Sphere is included, extending beyond the boundaries of the original game map. The *Kafer Sourcebook* also presents a complete listing of the more than 30 new stars not included on the original game map, as well as those already covered.

Introduced in the *Kafer Sourcebook* is a new alien race, unknown to humanity so far but important to the understanding of certain aspects of Kafer technology and history.

The *Kafer Sourcebook* also presents a treatise on Kafer language, including a pronunciation guide, a short vocabulary, and samples of Kafer ideographs.

Design.....William H. Keith, Jr.  
Development.....Loren K. Wiseman

Since 1973



PO Box 1646  
Bloomington, IL 61702-1646



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Printed in the U.S.A. Made in the U.S.A. ISBN 0-943580-58-7.