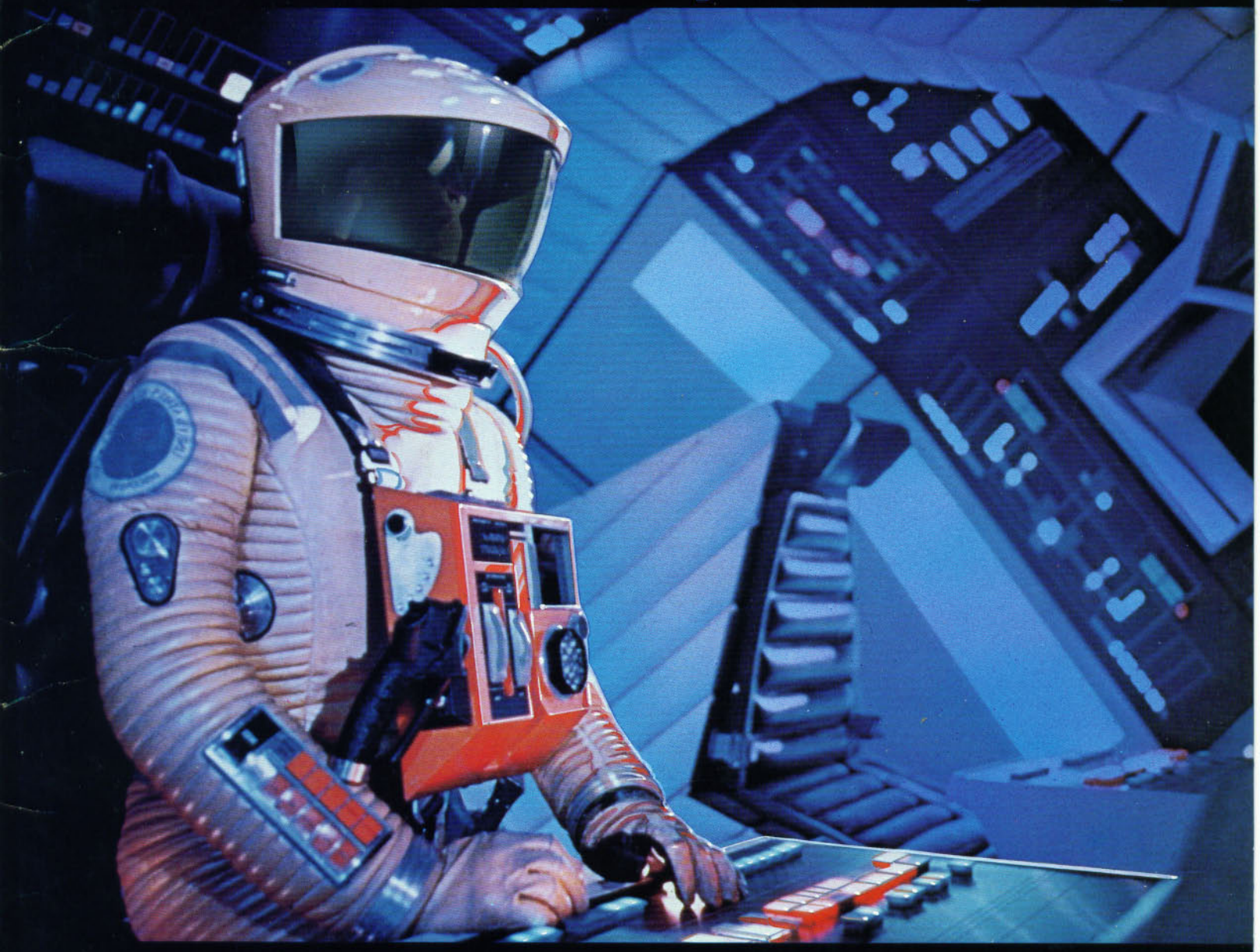
For use with STAR FRONTIERS® rules 7815

2001
a space odyssey



TSR, Inc.
PRODUCTS OF YOUR IMAGINATION™

A Special STAR FRONTIERS® Adventure Module

2001
a space odyssey

ADVENTURE BY FRANK MENTZER

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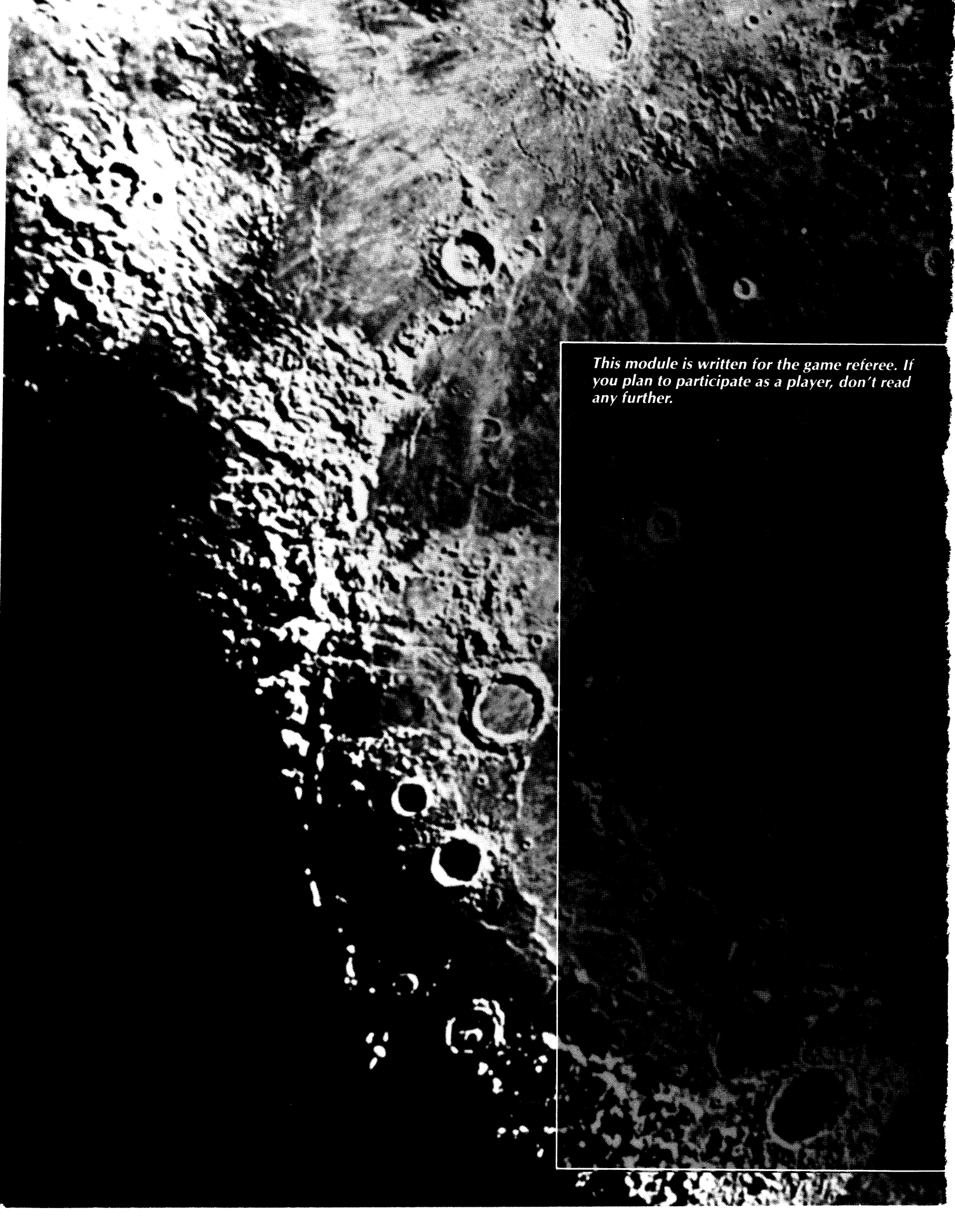
This adventure is based on the spectacular motion picture 2001 released by Metro-Goldwyn-Mayer Inc. Entertainment Co.



This module is written for the game referee. If you plan to participate as a player, don't read any further.

INTRODUCTION

THE RULES

This adventure is based on the movie 2001, and takes place on Earth, the moon, and in outer space between Earth and Jupiter. If you put his adventure in your STAR FRONTIERS® game, place it back in time before humans contact the other races.

You must be familiar with the Alpha Dawn Expanded Game Rules and the Knight Hawks Campaign Book to play this adventure.

This module is divided into four chapters. Each chapter relates to the others, but is a separate adventure at a different point in time. Read each chapter completely before playing it. When you finish a chapter, continue with the following chapter.

THE STORY

At critical points in Mankind's history, an alien device, a monolith, appears and provides a key to the future. Through this adventure, the player characters are present each time a monolith appears. In each case, whether or not Mankind successfully enters the future offered by the monolith depends on how the player characters react and how much they learn about themselves and their universe.

Chapter one is set in the African wilderness 4,000,000 years ago where small bands of primitive man-apes struggle to survive. The man-apes have reached the limits of their abilities, and are in danger of extinction. Then, a monolith arrives. With its mysterious power, it helps the man-apes learn and take the first steps toward humanity.

Chapter two takes place in the year 2001. Mankind has begun to explore outer space; the moon is partially settled and some exploration of the solar system is in progress. But Mankind's technology and knowledge are still limited, permitting only slow, cumbersome meandering through the nearest regions of space. There has been no manned interplanetary travel, and interstellar travel is only a distant dream. There is little reason to push on—the stars are far beyond reach.

Then, a monolith is discovered, buried in the moon. It is the first evidence of alien life, and prompts mankind to take the next step—the construction of the first manned spaceship with interplanetary capability.

Chapter three is the story of the first manned interplanetary voyage. The crew of the spaceship Discovery may have the first chance to contact an alien life—if they survive the perilous journey.

In chapter 4, a monolith offers the next and greatest step in human evolution to a select few people.

THE CHARACTERS

Each chapter, except chapter 4, is designed for a different set of player characters. Chapter 4 uses the same characters as chapter 3. Each chapter explains the PCs and NPCs necessary to play it. Before playing each chapter, give each player a character. Use the non-player characters to create a realistic and serious atmosphere, as well as to develop the plot.

SHIP MOVEMENT

In A.D. 2001, interstellar travel and jumps through the void are not possible. All spaceflight in this adventure takes place in chapters 2-4. Those chapters explain when and how to handle the necessary spaceflight.

THE MAPS

Map 1 is printed on the inside of the module cover; use map 1 in chapter 1. Map 2 is on the large map sheet included with this module. Use map 2 for chapter 2. Maps 3-8 are also on the large map sheet. Those maps are general plans of the spaceship U.S.S. Discovery; use them in chapter 3. Chapter 4 needs no maps.

FORMAT AND ABBREVIATIONS

Some sections of the text are enclosed in boxes. That text describes action, places, and things the PCs encounter. Read boxed text aloud to the players. You can also refer back to boxed text for descriptions and information later.

This module uses several abbreviations. The abbreviations are defined in the glossary in the back of your STAR FRONTIERS® Basic Game Rules.

MODIFICATIONS

This adventure is written for human characters. You may wish to play with other STAR FRONTIERS® character races. To modify this adventure, create similar settings and situations, but develop details distinctive to each race. For example, in a dralasite version of chapter one, the monolith might teach cooperation to primitive, independent dralasites. In a Yazirian version, the monolith might instigate the custom of life-enemies. Whatever details you develop, keep the basic principle in mind: when the culture reaches a critical point where growth stops and stagnation sets in, a monolith appears to show the way forward.

CHAPTER 1: DAWN OF MAN

To play this adventure, you need map 1 and 31 counters from the STAR FRONTIERS® Alpha Dawn game:
12 player character counters
8 herbivore counters
3 carnivore counters
8 pirate counters

In this chapter, the player characters are primitive man-apes, struggling to survive in the African wilderness. At first, the man-apes have so few skills that they stand at the brink of extinction. Only outside intervention can save them. Later, a monolith will enable them to acquire new skills and become the first creatures on Earth to control their environment.

This chapter covers one week of time in the lives of the man-apes. In the first two days, the players will learn about the terrain and problems of survival that affect their man-apes. During the third and fourth days, a monolith appears and the man-apes may begin to gain new skills and abilities. On the fifth, and following days if needed, the man-apes must try to defeat the carnivores that have dominated them.

1.2 PRIMEVAL WORLD

Place map 1 before the players. Map 1 depicts three levels of terrain, all covered with small stones and sandy soil. The cliffs (dark areas) cannot be climbed or passed. The plateau (clear area) is 5 to 10 meters below the cliff areas, and 1 to 2 meters above the valley (shaded area). The valley contains bushes, rubble, and occasionally a few herbivores.

Place 8 herbivore counters on the bush squares of the map, one per bush (leaving any 4 bushes vacant).

Read the following to the players:

> As the first red-orange rays of the sun reach into the darkness of your shallow cave, hunger stabs at your stomach. Though you have little memory of the past, most days start this way. You crawl out from the overhanging rock, and sniff the morning air. Somewhere across this African veldt lies your two greatest needs: food and water.

1.3 THE MAN-APES

Give each player one character counter from the STAR FRONTIERS® Alpha Dawn game. Use inverted (blank) counters to represent NPCs, for a total of at least 12 man-apes. The players must start their characters in caves, marked "PC" or "NPC." Any number of PC counters may be placed in the same cave. Divide the NPC counters as evenly as possible among the three NPC caves.

Man-apes can only enter the caves they start in, they cannot enter any other cave; the man-apes are not yet united. They only trust the other man-apes that share their cave. Entering another man-ape's cave is viewed as an attack. NPC man-apes defend their lairs to the death.

The average PC and NPC man-ape has the following ability scores:

STR/STA	50/40
DEX/RS	30/40
INT/LOG	20/20
PER/LDR	10/20
IM	3

In combat, any unarmed man-ape can inflict 1-2 points of damage. At the start of the game, characters cannot use tools of any sort, and thus cannot be armed.

When the characters are ready, read the following to the players:

> Around you are shallow caves around a valley. Several creatures of your tribe live here with you. The caves are fairly safe from predators, but far from food or water. A water hole lies far to the south.
>
> Others of your group have appeared at their cave entrances, and are now milling about, trying to decide which need to search for first—food or water. Though you have no language, you can express feelings through body motions and a few grunts. Your gut also speaks; you are hungry, and must find food.
>
> Your knowledge is limited. You know that there is safety in numbers, but you may choose to hunt alone or with others. You know which plants to eat, and which to avoid. You know which animals are dangerous, and which are just grass eaters.
>
> Your abilities are few. You can stand upright, and can even run a short distance if you must. If you find water, you drink from clumsy cupped hands; it is dangerous to drink directly from the water, without watching for danger. During those rare times when you are not busy searching for food and water, you usually sit with others of your tribe, picking insects from each other's hairy bodies.
>
> You may encounter others while hunting—others who are like you, but not of your tribe. They are not very dangerous, but compete for the same food and water you need. You might scare them away by screaming, jumping up and down, waving your arms and baring your teeth.
>
> Your goal is simply to eat food and drink water. You should return to your caves by night, but the choice is yours.

(boxed text continues)

If a character does not drink in a day (24 turns), the man-ape loses 1d10 STA. Failure to eat in a day results in the loss of 1d5 STA.

Movement: A man-ape can move at the base rate of 8 map squares per turn, modified by the standard terrain penalties (see "movement penalties" in section 1.5) or by wounds. A wounded man-ape moves as follows:

STA 20 or less:	6 squares per turn
STA 10 or less:	4 squares per turn
STA 5 or less:	2 squares per turn

Healing: A man-ape's wounds heal at the rate of 1 point of STA per 5 turns spent resting in a cave.

Stacking Limits: At the end of any game turn, no two man-apes can occupy the same square unless they are in a cave or water square. (When armed combat is possible, as explained in section 1.7, there is no stacking limit while attacking.)

Man-apes do not know how to speak, make tools, or carry food or water.

1.4 THE OTHERS

When any player character moves into a valley square, read the following to the players:

> The valley contains rubble and a few bushes—sources of food. Zebras and other herbivores are browsing; you know that they will run if you approach, or at least won't attack. The bleached bones of many of them lie scattered about, the remains of meals of more dangerous animals.

Herbivores: Zebras and other herbivores move up to 10 squares per turn during the day, or half that at night. They always run if a carnivore approaches within 5 squares of them, or if a man-ape enters their squares. If cornered, an herbivore will attack. Herbivores appear only in valleys, and cannot climb onto the plateau.

An herbivore counter can never move over nor stop on any other counter. (However, other counters can move onto herbivore counters.)

Whenever an herbivore flees, it moves west until it leaves the map. Once an herbivore leaves the map, it does not return until the following day.

Each morning, all surviving herbivores are returned to the map, and none have any wounds at that time.

Standard Herbivore:

MOVE:	Fast
IM/RS:	5/45
STAMINA:	40
ATTACK:	40
DAMAGE:	1d10

Carnivores: No carnivores start the game on the map, but they may arrive at any time (see section 1.5). When this occurs, use carnivore counters (the big cats) to represent these large tigers and wolves. Each carnivore is undamaged when it enters the board.

Carnivores can move up to 9 squares per turn in daylight. At night, they can only move 5 squares per turn. The standard terrain penalties apply to carnivore movement, except that the penalty for climbing from valley to plateau is doubled (-2 squares). They always pursue food (either herbivores or man-apes), and always attack the closest prey.

Carnivores always fight to the death. They do not leave the map until dawn of the day following their arrival.

Standard Carnivore:

MOVE:	Fast
IM/RS:	5/50
STAMINA:	51-150 (1d100+50)
ATTACK:	75
DAMAGE:	3d10

Enemy Tribe: Hostile man-apes of a different tribe will be encountered at the water hole. These have the same abilities as the non-player characters, but with STR 60. In hand-to-hand combat, they inflict 1-4 points of damage per hit.

When moving NPC man-apes, follow the player characters. If the PCs all head for food, all the NPCs do likewise; if the PCs take different paths, the NPCs also divide in roughly the same proportions.

1.5 SURVIVAL

The survival game is played in turns, each representing 1 hour. In one 24-hour day, there are 14 turns of daylight, followed by 10 turns of night. During a turn, a man-ape may do one (and only one) of the following: Move, Eat, Drink, or Rest.

During the daylight period, run the game by turns. If all the man-apes return to the caves for the night, describe it briefly (growls and howls of predators can be heard all night) and announce the dawn.

If one or more man-apes do not return to the caves by nightfall, run the night period by turns until they return or are slain.

At the end of each night period, place all living herbivores on bush squares, and remove any carnivores, slain herbivores, and slain man-apes still on the map. Remind the players to heal 1 point of damage per 5 turns of rest.

Movement Penalties: For man-apes, a square containing water, rubble, or bushes counts as if 2 squares. Any plateau edge (to or from a valley) is treated as an extra square. A square cannot be entered unless the movement cost can be paid in full; for example, a man-ape with 1 unused square of movement cannot cross a plateau edge, or move into a rubble square. A character may carry a fallen comrade, but at 1/2 normal rate. During night, all movement is at 1/2 normal rate.

Eating: To gain enough nourishment to survive, a character must spend 1 full turn every day in a bush square, eating.

Drinking: To drink enough water to survive, a character must spend one full turn every day in a water square.

The Water Hole: When any man-ape counter moves within 2 squares of the water hole, check to see if enemy tribesmen are already there (a 40% chance, checked once per day). If they are there, stack four red pirate counters in each water square before any PC or NPC counter moves into them.

PC and NPC man-apes can never enter any map square south of the water hole until the enemy man-apes have surrendered (as described in section 1.7).

If a PC in a square adjacent to the water hole jumps up and down and screams, the enemies might run away (a 25% chance); check for each character doing so, but only check once per day per character. If the enemy does not flee, the PC and NPC man-apes may not enter the water until the others leave.

If they are not scared away, the enemy man-apes all leave after one or more turns. Roll 1d10:

1-4	Leave at the end of the next turn
5-9	Leave after two more turns
10	Leave after three more turns

When the enemy man-apes leave, they all move off the south edge of the board at the same time.

Carnivores: A predatory animal may enter the map at any time. The chance is only 10% per turn during daylight, but 70% per turn at night. Use a carnivore counter (big cat) to represent a predator. To determine the point of entry, roll 1d10:

1- 3	= west map edge
4-10	= east map edge

Carnivores may enter in any shaded square along the proper map edge. Each carnivore is undamaged when it enters the map. A carnivore cannot move during the same turn it arrives.

During daylight, only one live carnivore can be on the map at any one time; during night, up to 3 carnivores may prowl the area.

A carnivore always moves to attack the closest prey, either man-ape or herbivore. However, once a carnivore slays a man-ape, it does not move from that spot until nightfall, or until attacked. Carnivores cannot enter caves.

Order of events in a game turn:

1. PC man-apes act (move, eat, drink, or rest).
2. NPC man-apes act.
3. Herbivores move.
4. Carnivores move (if any).
5. Check for carnivore arrival.
6. Enemy tribesmen move (if any, and if allowed).

After the Monolith appears, the apes learn to use tools.

Combat:

Combat occurs whenever an attacking creature enters the same square its intended victim is in. There are 10 combat rounds in each game turn.

When a carnivore attacks an herbivore, the carnivore gains initiative in each combat round. Run the combat quickly, briefly describing the results to the players.

When a carnivore attacks a man-ape, roll normally for initiative (1d10 + IM for each side). However, a man-ape who wins the initiative may choose either to attack (allowing the carnivore to attack in return, afterward) or evade. If the man-ape evades, neither side can attack during that combat round.

Gamemaster: Run 2 full days and nights of the basic survival game, and then apply the details given in section 1.6. If any carnivores arrive during the first two days, there will probably be casualties. Slain creatures are not replaced; thus, by day 3, there will probably be fewer herbivores and man-apes than at the start of the game.

1.6 CHANGES

In the daylight periods of the 3rd and 4th game days, no carnivores will appear on the map. On the third game day, a large black rectangular slab—the monolith—appears in the southernmost point of the valley (a single square, jutting south from the rest). Do not tell this to the players until a PC man-ape moves to an adjacent square (either horizontal, vertical, or diagonal). No non-player characters will approach the monolith.

When a PC man-ape moves to a square adjacent to the monolith, the character must stop moving immediately. Read the following boxed text to that character's player.

> You see a new rock, large and black. It might be tasty; you approach, cautiously. Then you hear a low, throbbing sound, and are fascinated. The sound grows louder, and you forget your troubles. You stare at it for a long time.
>
> Suddenly, you lose control of your body. Your head moves to and fro; you bend down, and stand up again. You reach straight forward, and then touch your nose. Panting in fear, you continue the strange movements.
>
> After a while, you stop moving and wait for a few minutes longer. Then you forget about the strange experience, and

(boxed text continues)

> can continue on your way. Ignore the black rock from now on; it is just part of the scenery.

If any other characters approach, tell the players that the same thing occurs with them; you don't need to read the text more than once. Remember, however, that NPCs will not move near the monolith, and PCs doing so must end their move when they are adjacent to the monolith. Continue with the survival game for the remainder of the third day.

On the fourth game day, the monolith makes a singing noise. Any man-ape that moves within 5 squares of it is drawn toward it, stopping in an adjacent square to watch and touch it.

This time, each PC man-ape visiting the monolith gains one skill. Roll 1d10, find the skill learned on the following chart, and tell the player privately. The man-apes cannot speak, and cannot tell the others what they have learned; they must demonstrate to communicate.

If the skills are used during the following day, the other man-apes can learn them by watching for 1 turn without moving, eating, or drinking. Note that attacking with rocks or bones can be taught anywhere; there need not be a victim.

SKILL CHART

1-2	Your character learns how to throw rocks. Gain +10 DEX.
3-4	Your character learns how to hit something with a bone held in one hand. Gain +10 STR.
5-6	Your character realizes that animals could be eaten if they were caught. Gain +10 INT.
7-8	Your character realizes that food could be carried, and taken back to the caves. Gain +10 LOG.
9-10	Your character realizes that an animal skin could be used to carry things—such as water. Gain +10 LDR.

Adjust rolls if necessary to be sure that PCs gain both combat skills.

1.7 CONQUEST

Continue playing the survival game, using the new skills. Tell the players that they have a new goal: to conquer the map. Their characters do this when (1) they have slain a carnivore, and (2) the enemy tribe has surrendered.

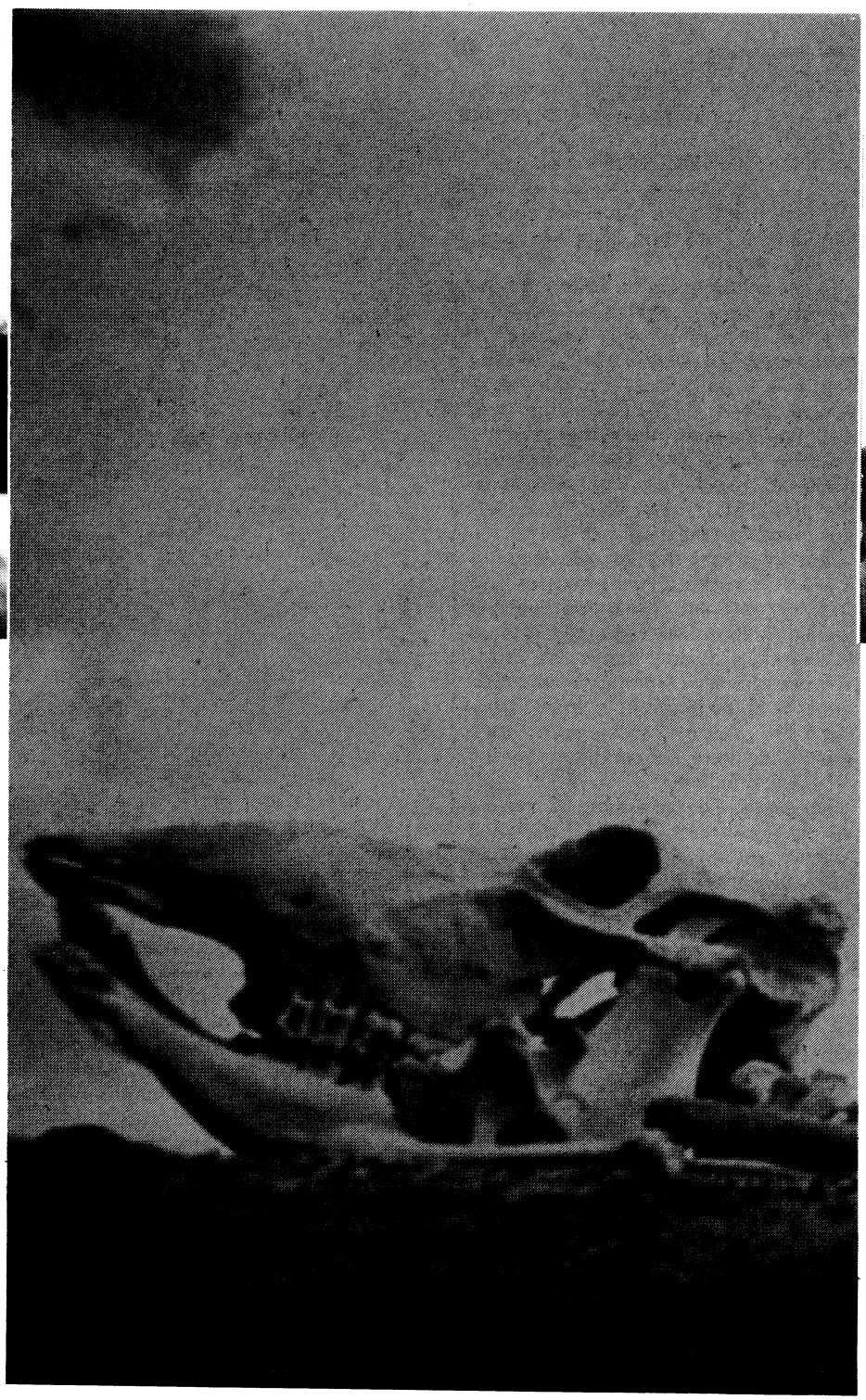
Weapons: An unlimited number of stones are available. Characters with the appropriate skills may throw them or use them in hand-to-hand combat.

Hand held: Use standard combat procedures. Damage is 2d10.

Thrown: Damage is 1d10. Ranges:

Point Blank:	in the same square
Short:	1 square
Medium:	2 squares
Long:	3 squares
Extreme:	4 squares

Enemy Tribesmen: These man-apes have not seen the monolith, and have no skills. Each one flees if its stamina is reduced to 10 points or less. However, others arrive the next day. If an enemy tribesman is slain, the remaining tribesmen grovel and whine, backing out of the water hole and generally indicating their surrender. They will join the PCs' tribe if given food or otherwise treated with kindness.



Action: A man-ape can now, in one turn, do any one of the following: Eat, Drink, Rest, Move, Attack, or Learn.

Food: A character with the appropriate skill can collect food and carry it back to the caves. Collecting food takes 1 full turn; a character cannot both collect and eat at the same time. One character can carry enough food to feed one man-ape for one day. This may be stockpiled or shared, as desired. If the character collecting food tries to show others the skill, all the man-apes in the valley at that time also learn how to collect food, and may do so immediately if desired.

Water: Water cannot be returned to the cave until an herbivore is slain, and its skin used as a crude container. One skin of water is enough for one man-ape for one day. When one man-ape arrives in a cave with a water skin, the others in that cave (only) automatically learn how to carry water at that time.

The conquest phase of the Dawn of Man game should take 3 to 5 game days to complete.

CHAPTER 2: LUNAR EXCURSION

To play this adventure, you will need maps #2, #3, #4, and #5, and several "vehicle" counters from your Knight Hawks game box.

2.1 THE SETTING

This adventure is designed for any number of players. A minimum of 4 is recommended.

Read the following text to the players:

> The time is 1994; the place—Space Station One, in Earth orbit. Man is expanding into Space.
>
> On earth, there are six billion people — victims of overpopulation and food shortage. Geographical boundaries have faded into symbolic lines, of concern only to politicians. The thirty-eight nuclear powers glare at each other, ever watching for false moves, but do little else. The mega-corporations (which will eventually evolve into Pan Galactic, of the normal STAR FRONTIERS® game setting) dominate the quality of life.
>
> You are among the few, privileged to live far from the teeming masses and their ever-present crises. You live and work on Station One, the largest of three orbital cities floating above the Earth. You occasionally commute to other Stations, or to the moon, the "local" frontier. Six major bases have been established there, but conditions are still relatively primitive.
>
> For almost a decade, there has been a standing reward of 1,000 CR for anyone able to produce an item created by an extra-terrestrial life form.

2.2 THE CHARACTERS

Players use normal human STAR FRONTIERS characters. To prepare for the game:

Players should follow the standard procedure for creating new characters. Existing characters should not be used, as their equipment and skills are designed for this world's future.

Each character must have a Primary Skill Area and has two required skills: Computers and Technician. Each player may now select up to 3 other skills, but of the 5 total, at least 2 of them must be in the character's PSA. Each character has a total of 12 Skill Levels, which the player may divide in any manner, but with a maximum of 5 in any one Skill.

Each player then has 40 ability points (assumed from experience prior to this adventure) to add to each character's ability scores in any way desired. Remember that after adjustments, each pair of scores (such as STR/STA) may differ by no more than 10.

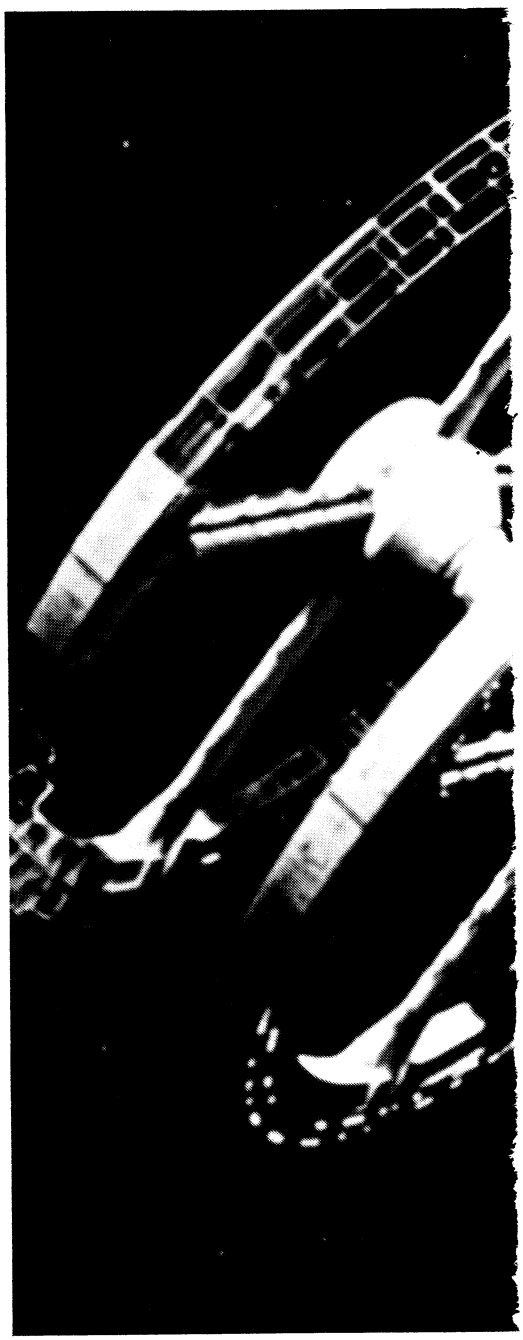
The only equipment needed at this time is one standard spacesuit with two packets of suit patches. Other necessary items are furnished later.

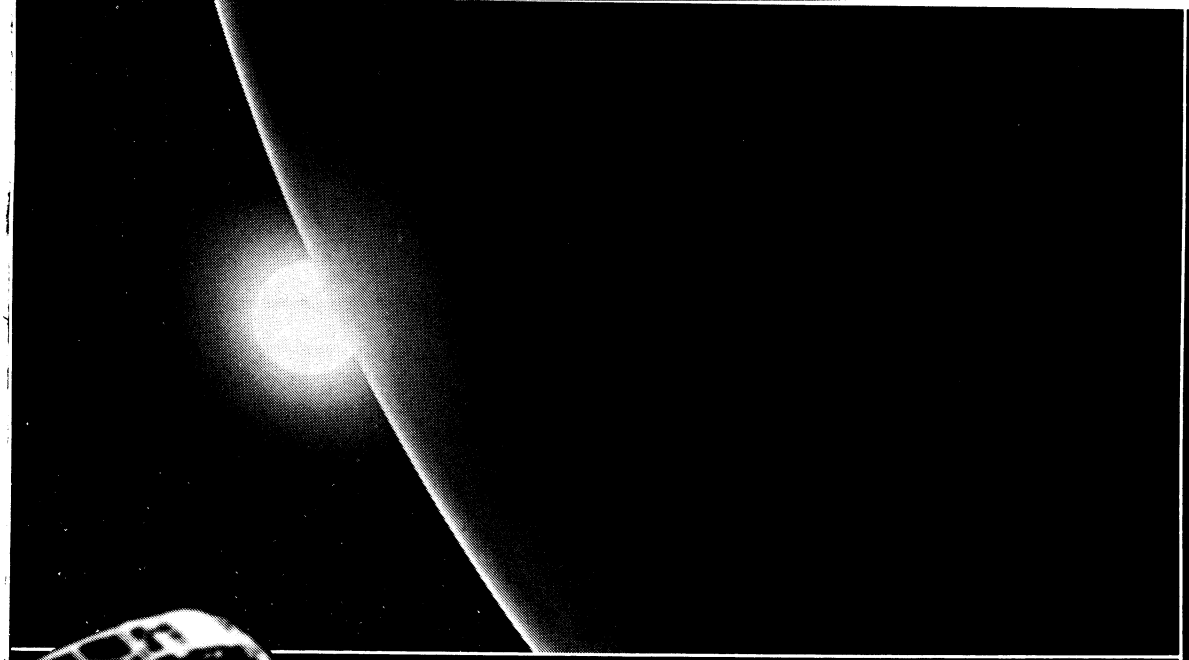
Finally, each player should secretly choose a nationality: American, Russian, Chinese, or Other. This is needed after the mission briefing (see 2.3).

Now read the following text to the players:

> In the course of exploring the moon, little has been found. Its low gravity (1/6 earth normal) has helped speed the job; but of its vast area (almost 38 million square kilometers), less than 1% has been fully investigated.
>
> One day, as you review your message list in the computer, you find an anonymous note, sent from someone at Clavius Moonbase: "Read the Chinese News. Bring your suit." Keying the Newspad, you find that the Asians are preparing to investigate a "magnetic anomaly" near Clavius.
>
> Opportunity has knocked. You have a few vacation days available, and decide to take the next shuttle to the moon. Once there, when you ask for information as you check your suit at Stores, you are directed to the American Office. There you receive a room number for a general meeting.
>
> The briefing room contains several professionals from the Stations and the moon, all apparently as uninformed but excited as you are. You recognize the

(boxed text continues)





The sun rises once again over an Earth on the brink of nuclear war.

High above Earth, man's first space station floats unfinished. Special Flight 3 prepares to rendezvous.

official in charge—Dr. Roy Michaels, a geo- (and now luna-) physicist and Chief Scientist for the whole Southern Province.

"Ladies and Gentlemen, I offer you the chance to earn a thousand credits." The room buzzes with excitement; after it quiets, he continues. "Last week, our team here at Clavius deduced the existence of an unusually large magnetic anomaly apparently within 400 kilometers of this base—right under our noses, so to speak.

"Now, the moon has thousands of minor anomalies; most dipole magnetic fields are one to five gammas, but there are some of up to four hundred, and they correspond to areas where samples tested by radiometric analysis—." Another official interrupts, whispering to him; then he continues. "I'm sorry, but we're rather wrapped up in our work here. Anyhow, there are several masscons—sorry; abnormal concentrations of mass—here and there just under the surface; part of our job is finding and mapping them. This huge magnetic anomaly is probably one of them.

"We have the equipment to search for the exact location, but not the personnel. The Russians have just the opposite: plenty of personnel, but not enough equipment. We suggested a collaboration, but they declined; probably because of political tensions, earthside. The Chinese, however, have everything they need. Their ship will lift off tomorrow, from Earth, and they should arrive about sixty hours from now.

"As you may know, Clavius Base was constructed by the United States Astronautical Engineering Corps. It is now open to all nationalities. Now, we Americans would much rather find this thing ourselves, for obvious reasons. We also believe that an anomaly of this size may be a ship or device beneath the surface, and it's not ours. I think it's extraterrestrial, and that would mean a thousand-credit reward from Megacorp. In the interests of scientific advancement, and the United States in particular, I make the following offer. If you work for us and find this thing in the name of the United States, you can keep all of the reward—subject to the usual taxes and so forth.

"We'll loan you the equipment, and give you ten credits for your efforts, even if you fail. Whatever you decide, though, we ask you not to spread this news; it's not widely known, even here. If you try to call someone, your conversation will be monitored, and you may be cut off. You can leave, if you wish, but there's been a temporary delay in departures; by the time you get anywhere, leaks won't matter.

"If you want to participate, report to Lock 3, with your suit, at 1400 hours; that's about 2 hours from now. Thank you for coming, and sorry if there's any inconvenience."

He does not wait to answer any questions.

(boxed text continues)

Two* characters, which you may select or determine randomly, will be approached by agents as they head back to Stores to pick up their suits. Each character will be contacted individually, while separated from all other characters. Run each encounter privately, away from the other players.

* If you only have one or two players in your game, only one will be contacted, by the Chinese agent.

The agent will approach peacefully and ask to talk in private, on a matter of great importance and possibly very profitable. If the character agrees, the agent indicates a nearby office.

Both agents know the identities and nationalities of everyone who reported to the briefing. Agent #1 is a diplomat-scientist in the Russian office of Clavius Base. His normal work is entirely legitimate. He will approach another Russian in preference to others. If no characters are Russian, he will approach anyone but a Chinese.

Agent #2 is a computer technician who works for Dr. Michaels, and who is a double agent working for the Chinese. He leaked word of the anomaly to his superiors. He will approach a Chinese in preference to others, or otherwise anyone but a Russian.

Each agent makes the same offer: 50 CR to work for him, and if the character finds the anomaly, to openly claim it in the name of his country, instead of the U.S.A. The finder can still keep the reward. Extra equipment is also offered, to be used to cause a vehicle malfunction for anyone exploring the same area: a Laser Rifle, with four 20 SEU clips. The agent suggests that, as its range is 400 meters at the extreme, the character should maneuver as closely as possible. Perhaps a request for assistance, or an offer of cooperation. . . .

If a character accepts, the 50 CR fee is paid immediately, and the rifle and power clips are produced from a storage cabinet. The character also notices that the agent is wearing tight-fitting skin-colored gloves. The rifle must be smuggled in by hiding it in the spacesuit.

If a character accepts the offer and then reports the agent's attempt, the Clavius officials will offer their thanks, but cannot take any direct action unless proof is available. (The money or weapon is not sufficient proof; neither are any fingerprints other than the character's.) They will allow the character to keep the money, if desired.

If a character accepts the offer, finds the anomaly, but does not follow through with the agreement, the agent will make sure that a deadly "accident" occurs when the character returns to Clavius Base.

2.3 THE RACE

Referee: Before you continue, select or randomly determine the actual location of the monolith. To randomly choose a site, roll 2d10; there are 19 numbered masscons on the map (Clavius base is numbered 1).

When you know which masscon is the monolith, make a secret note of it, and its approximate map location.

In the original story, the monolith appears in the crater Tycho. Wherever it appears in your game, its code name will be the first initial of the crater, followed by "MA-1" (for Magnetic Anomaly #1).

A character may choose to explore alone or with one other character. The characters are each given a map of possible sites of the anomaly, and allowed to explore anywhere they wish.

Each character or team may check out the following special supplies at Lock 3. A full demonstration of proper use is included with each item, so the characters have a 100% chance to operate them. *Lunar Exploration Vehicle (LEV):* This is similar to the "Explorer" class of Vehicle in the ALPHA DAWN game rules, but smaller and designed specifically for lunar use. Large windows are located front and rear, and the airlock hatch is on one side. A radiophone is included.

Treads are the primary movement power, but power struts ("legs") are also mounted, enabling the vehicle to jump. The horizontal range of a jump is 46-55 (1d10+45) meters from a stationary position, or 72-90 (2d10+70) meters when executed at maximum speed. The maximum height of a jump is 1/3 the jump range, reached at midpoint. Modification of the jump characteristics requires Level 3 Technician Skill and

3-30 hours of time.

To make a moving jump, the driver must make a Technician Skill check for Operating Machinery. A -20% penalty applies unless the driver has 3 or more months' experience at LEV operation. If failed, each passenger takes 1d10 damage, and devices carried may also be damaged; use the chances and damage given in "Fissures" for a "hard collision.")

Top/Cruise speed:	42 kph/18 kph
Accel/Decel (m/turn):	40/30
Top/Turn speed (m/turn):	70/50
Stationary Jump Range:	46-55 (1d10+45) meters
Moving Jump Range:	72-90 (2d10+70) meters
Passengers:	4
Cargo Limit:	750 kg, 5 cubic meters
Power:	Type 3 parabattery (good for 1,000 km of travel)

If a LEV is hit by a laser, use the standard Vehicle Damage Table to find the results.

Massometer: This device scans for the closest abnormal concentration of mass, and displays the direction and distance (within 5% error). Its range is 20 meters at minimum, 10 kilometers maximum. It is normally left in the vehicle, operating continuously. It has the same relative complexity as a communications device, and can be repaired by anyone with Technician skill (at standard chances of success). Mass: 3 kg. Power: SEU clip, beltpack or backpack; uses 1 SEU per hour of continuous operation.

Gaussometer: This specialized Level 1 computer scans for a magnetic field, and displays an analysis of its strength. In use, it must be very close to the object producing the field. If in contact with the object, a reading may be obtained in one minute. If within 10 meters, 10 minutes are needed for the result. If used within a vehicle, it will give a faulty reading, affected by several fields at once. The sensors have five settings:

#1	1 to 10 gauss
#2	.1 to 1 gauss
#3	.01 to .1 gauss (100-1,000 gammas)
#4	.001 to .01 gauss (10-100 gammas)
#5	.0001 to .001 gauss (1-10 gammas)

A note with this device provides further information:

1. All minor anomalies discovered on the moon range from 1 to 400 gammas.
2. The large anomaly produces a strong field, 900 gammas at its maximum. However, this information comes from extensive analysis of the area; local analysis should produce average readings unless the gaussometer is directly above the anomaly.

Settings 3, 4, and 5 are used in this adventure. Computer Skill is needed to operate the device. Mass: 5 kg.

Power: SEU beltpack or backpack; uses 1 SEU per 10 minutes of operation.

The following Standard supplies are also issued, per vehicle or per person as described:

1	Chronocom per person
1	Flashlight per person
1	pair Infra-red Goggles per person
1	pair Magnigoggles per person
1	pair Sungoggles per person
1	Survival Ration per person
2	Life Support packs per person, each with 20 hours of food, water, and oxygen
3	(50 SEU) power beltpacks per vehicle
1	spare parabattery per vehicle
4	Holoflares per vehicle
1	Water pack per vehicle

Unfortunately, albedo suits and screens are not available. They are still being developed.

Dr. Michaels again appears at Lock 3, for an important purpose. He distributes one Laser Pistol for each vehicle, each with a 20 SEU power clip. He explains that a saboteur may be among the explorers. He also warns everyone that there has never been a murder on the moon, and the first case—whenever that may be—will be used to set an example of swift and exact justice.

On a lighter note, he reminds everyone that, should they need more supplies, each crater contains an emergency depot.

Maps: Lay out the four maps of the lunar surface (Maps #2, #3, #4, and #5) so that they are aligned to form a playing surface. Each Lunar map square represents an area 12 kilometers across.

Counters: Give two vehicle counters from the ALPHA DAWN game (explorer, ground car, etc.) to each player or team. One counter is used on the large lunar map; the other may be needed for the smaller scale battle maps. All LEVs start at Clavius Base (marked START).

In addition to PC counters, place extra counters at Clavius Base, representing NPC teams, if needed. There should be a total of 6 to 10 LEVs in operation.

Testing a Masscon: Any masscon can be tested by moving the LEV to the same square. (Note the procedures for testing, as given in the equipment descriptions.) If not interfered with, an LEV must spend one square of Lunar map movement (see below) to test a masscon. On Scale 1 and Scale 2 maps, use the times given in the equipment descriptions.

MAPS AND MOVEMENT

Since the Lunar map has a very large scale, two other maps may be needed to resolve combat and other LEV interaction.

On the Lunar map, the race is played in 30 turns, each representing 2 hours of time. Each LEV moves 7 Lunar map squares (84 km) per turn, at maximum rate. Have the players take turns moving, though all action is simultaneous.

Move the NPC units to the closest masscons that are not being explored by PCs. Do NOT avoid the real monolith when moving NPC units. If they reach the goal first, assume that they do not test it accurately, and believe it to be a large (300-400 gamma) but not unnatural anomaly.

When two or more LEVs occupy the same Lunar map square, use the map sheet from the ALPHA DAWN game to examine action on a smaller scale, called "Scale 1." All action on Scales 1 and 2 (as explained below) take place within a single Lunar game turn.

SCALE 1

Use the "Mountains" map for play at Scale 1. At this scale, each square is 70 meters across; vehicles move 1 square per turn (a standard STAR FRONTIERS® game turn).

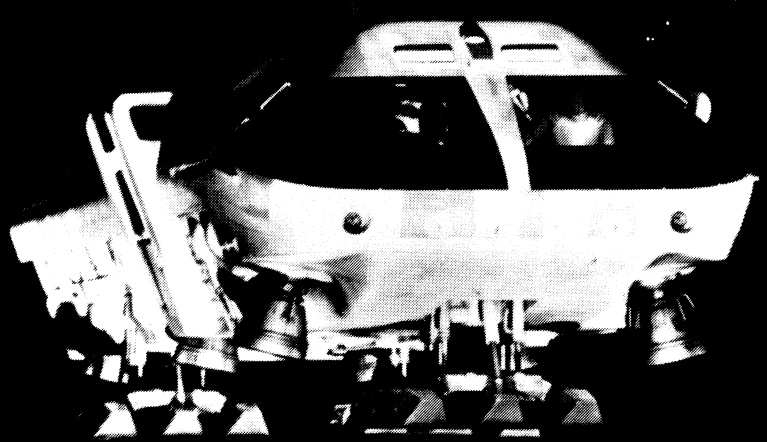
Note the direction of travel of each vehicle on the Lunar map; then randomly determine which side of the Scale 1 map represents North. Place each LEV on the center of the map edge corresponding to the direction from which it entered the Lunar square; for example, if a vehicle was heading north, it starts at the center of the south edge of the Scale 1 map.

When one LEV reaches the map edge opposite its starting point, the game scale shifts back to the Lunar map.

On this map, treat the "road" terrain as a fissure. Determine the fissure width at random (see "Fissures").

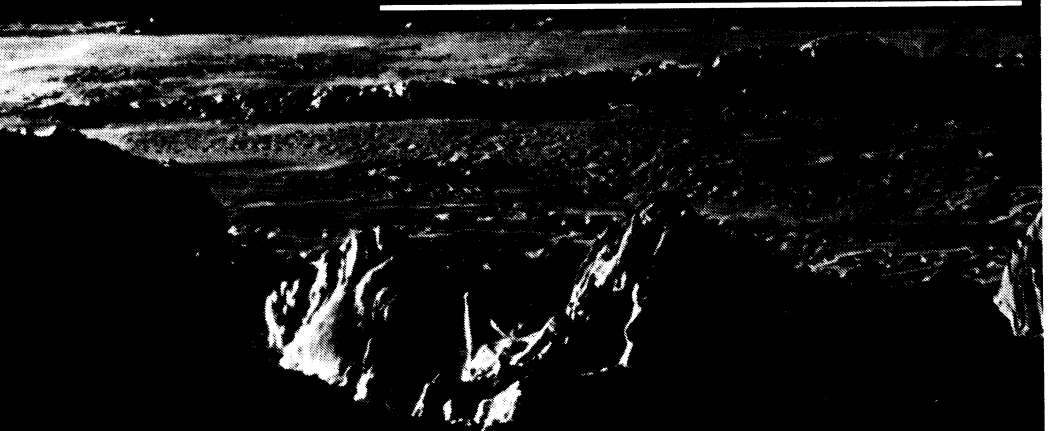
The weapons used in this game are not effective at ranges of 3 squares (210 meters) or more.

An LEV glides above the lunar surface.



SUCCESS RATE: VEHICLE JUMPS OVER FISSURES

d100	Width in Meters	Vehicle is: Stationary	Moving
01-25	25 or less:	100 %	100 %
26-45	26-40:	90 %	100 %
46-60	41-45:	70 %	90 %
61-70	46-50:	50 %	80 %
71-80	51-55:	30 %	70 %
81-90	56-60:	10 %	60 %
91-95	61-70:	0 %	50 %
96-99	71-80:	0 %	40 %
100	81-90:	0 %	20 %
	91 or more:	0 %	0 %



If the LEVs move to within 3 squares of each other at Scale 1, proceed to Scale 2.

SCALE 2

Use the "Desert" map (from the ALPHA DAWN game) to represent Scale 2. Each square represents an area 10 meters across; a vehicle moves 7 squares per turn at maximum speed. Place the LEVs in the "sand" terrain (now representing fairly flat rock), at a distance and position corresponding to their previous position on the Scale 1 (Mountain) map, near the center of the Scale 2 map. Treat all map features (trees, water, etc.) as impassable rocks.

Consider the scale carefully when resolving weapon use, sharp turns, and so forth.

Play at Scale 2 as long as needed, returning to Scale 1 when any LEV reaches a map edge. Replace the vehicles on the Scale 1 map, possibly in slightly altered positions.

FISSURES

The moon surface is noteworthy for its rough terrain, but the vehicles are designed for it. In addition to simple rubble and slopes, there are occasional chasms, small and large, called fissures. The "road" terrain on the Scale 1 map is treated as a fissure. A LEV may need to cross this fissure, by jumping it.

The success rate varies by the width of the fissure, in meters. To determine the width of a fissure encountered, and the chances of successfully jumping it, roll 1d100:

Compare the actual jump distance (as given in the LEV description) to the fissure width. Failure when the width is greater than the jump range indicates a hard collision with the opposite wall. Otherwise, roll 1d10 to determine the cause of failure:

1-3 Soil at start of jump collapses, resulting in a hard collision with the opposite wall

4-10 Landing point collapses under impact, dumping the vehicle into the fissure

If a hard collision is indicated, each passenger takes 1d10 points of damage. The technical devices may also be damaged; roll 1d10 for each, and apply the following results:

Device	Extent of Damage None	Some	Total
Radiophone	1-6	7-9	10
Massometer	1-3	4-9	10
Gaussometer	1-4	5-8	9-10

Any device not totally ruined may be repaired, with standard chances of success.

A techkit is required. Remember that the gaussometer is a Level 1 computer.

When any jump fails, the LEV lands at the bottom of the fissure. It may be driven out after a delay of 5 (Scale 1) turns.

EMERGENCY DEPOTS

Each crater to be explored has one Emergency Depot, roughly centered in the crater. A large sign mounted next to each one gives a list of supplies available. Each contains:

1	Type 3 parabattery
1	100 SEU pack
5	20 SEU clips
2	Water packs
1	Standard Spacesuit
4	Life Support packs
1	Techkit
1	Robcomkit
1	Medkit

Telephone (to Clavius base)

Anyone may use the supplies in the depot. It opens when an ID card is inserted into an obvious slot, or when the user calls Clavius Base (who opens the depot by remote control).

Each supply depot is monitored by three cameras, obviously mounted on top, which activate whenever anything moves within 100 meters of the depot. The transmissions from the cameras are automatically recorded at Clavius, and are monitored by personnel.

OTHER HAZARDS

Several non-player characters were also approached by agents, and some of them are now working for the Russians or Chinese. Use the following statistics to represent each NPC saboteur-explorer:

STR/STA	50/55
DEX/RS	50/45
INT/LOG	40/50
PER/LDR	50/50

Skills: Technological PSA, Computer 3, Technician 5, Robotics 2, Beam Weapons 1, Medical 1

When placing NPC vehicles, choose one or more as saboteur-explorers, and make a note of their identities. In moving them, try to maneuver to get one or more shots at PC LEVs. Try to do this when other LEVs are in the same area, in an attempt to leave doubt about the origin of the shots! NPC saboteurs should not attempt to kill PCs, but try to cause delays by damaging vehicles.

One noteworthy tactic is to fire a carefully-placed shot while a PC LEV is jumping a fissure. A successful hit on the landing site causes a -20% modification to the chance of success for any jump that lands within 20 meters of the fissure edge. If jump failure results, the laser has weakened the landing site, and the LEV tumbles into the fissure. This insidious ploy should be completely unnoticed by the PC LEV jumping unless it contains a team of two, with one watching for trouble. It should not be noticed by a lone PC unless the shot comes from an area in the PC's general line of travel.

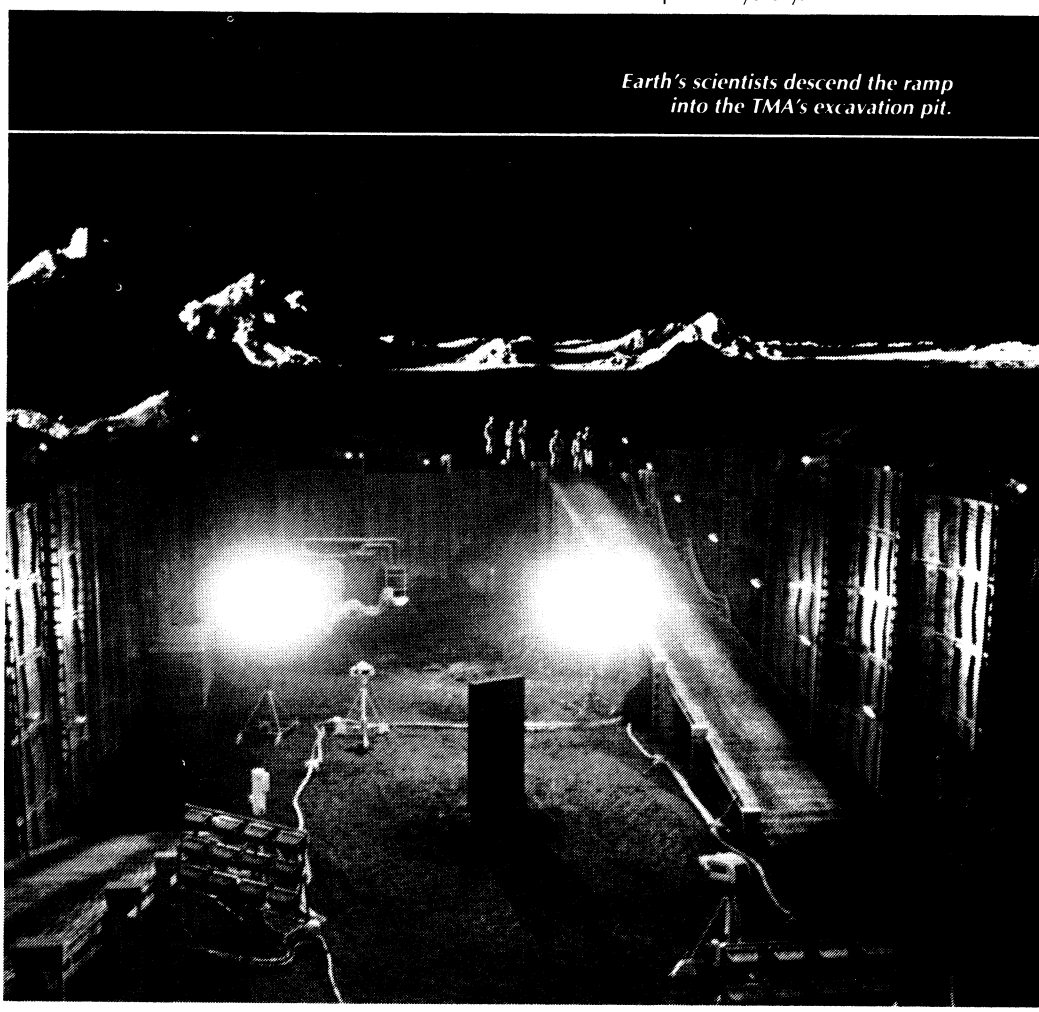
Player characters may also use this technique, with the same results, but do not suggest it to them.

2.4 TRANSMISSION

After the large anomaly is pinpointed, all characters involved in the search are detained. Formal investigations follow, and each character is sworn to secrecy about the whole operation—under various penalties, customized for each individual. The governments involved are determined to keep the discovery as secret as possible, and will use any and all information about a character's background and personal habits to ensure that person's silence.

The characters never learn the reason for the secrecy; they just know that a large anomaly has been discovered. After they are safely gone, rumors about plague, accidents, and other unsavory events are released to explain a temporary ban on visitors to Clavius.

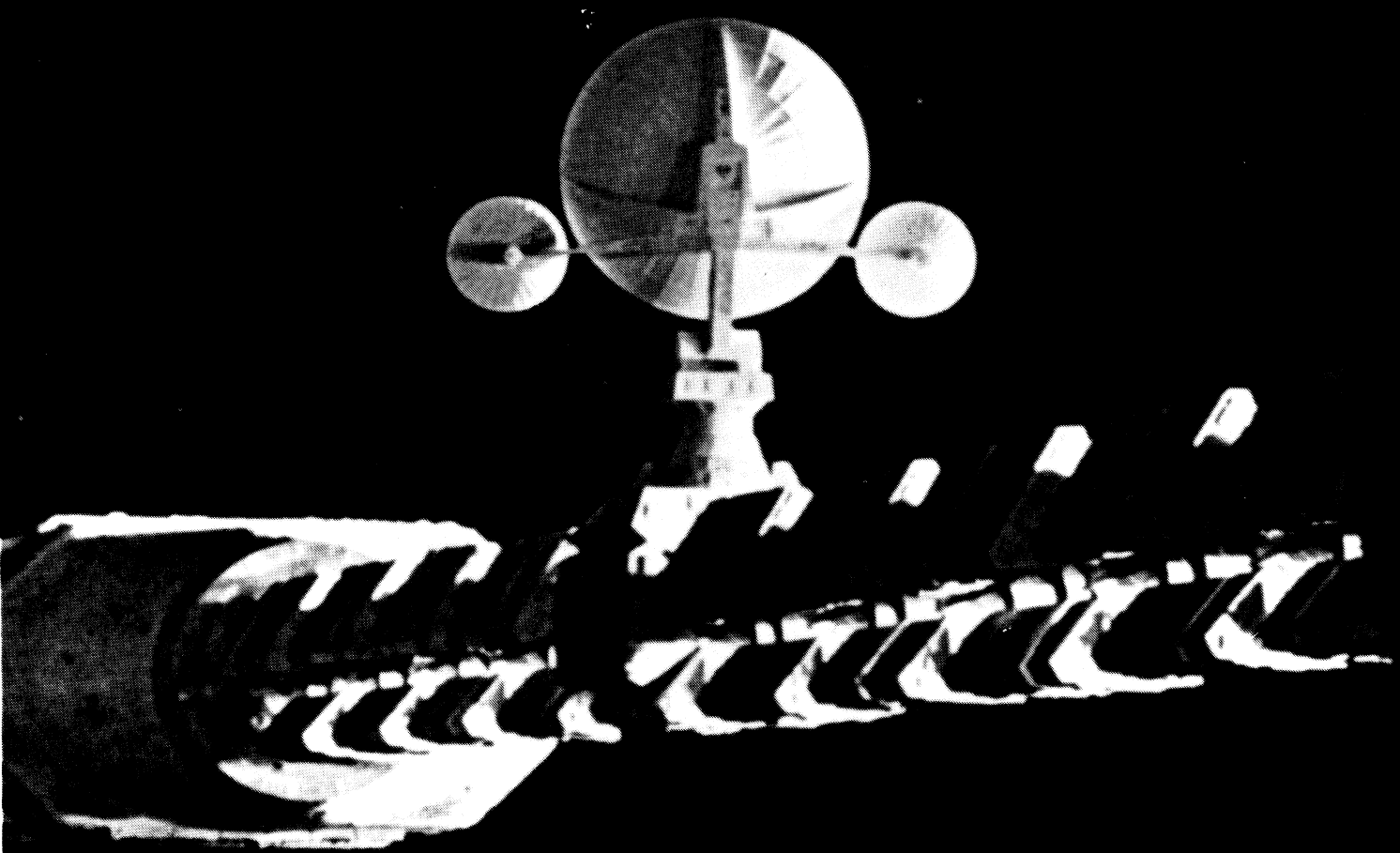
Once the monolith is found, a group of experts and technicians excavate around it. They find a hard black slab, 11 1/4 feet high, 5 feet wide, and 1 1/4 feet thick. During its examination, Lunar sunrise happens to occur; and when sunlight shines on the newly uncovered monolith, it emits a series of five electronic shrieks. Its purpose remains a complete mystery.

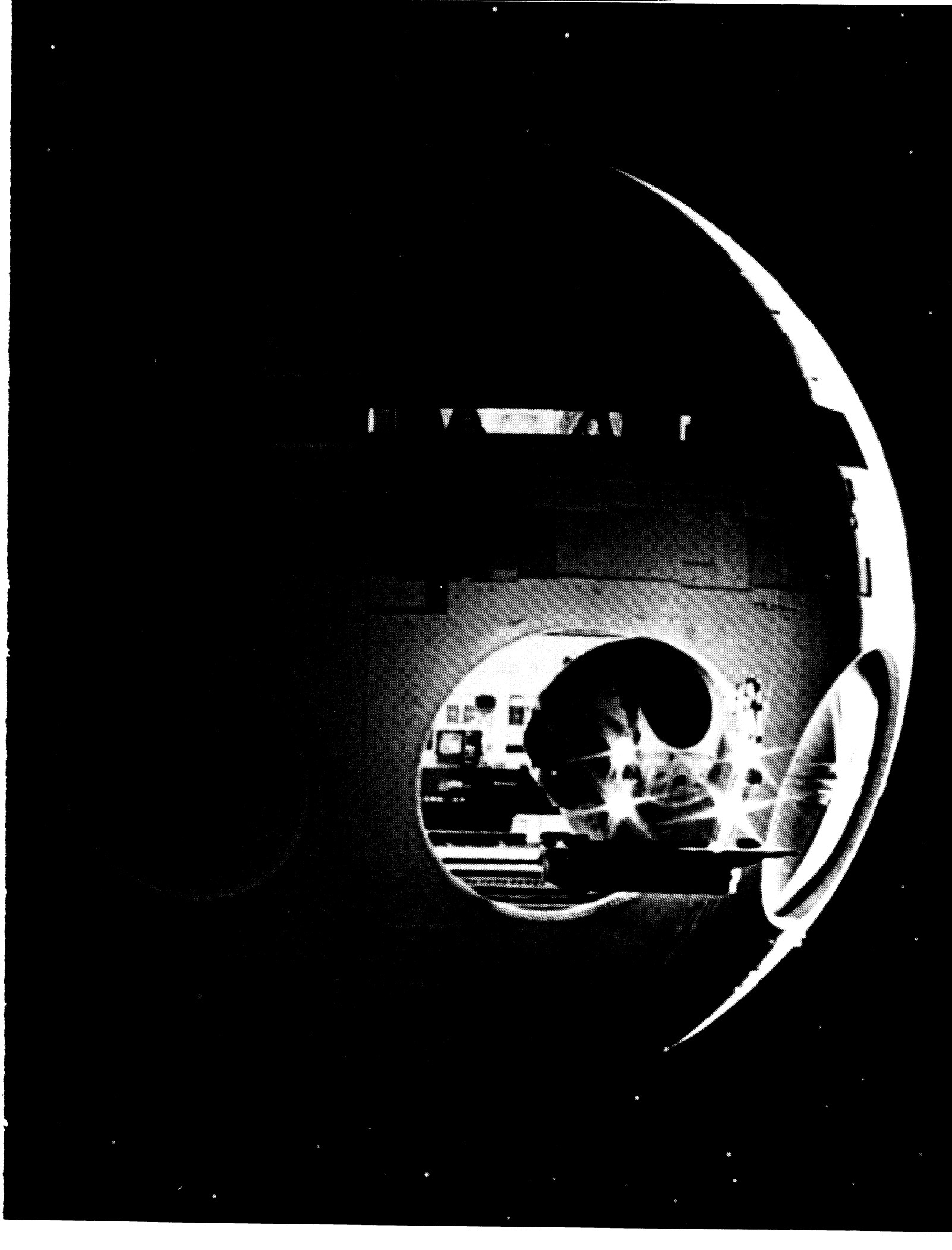


Earth's scientists descend the ramp into the TMA's excavation pit.

CHAPTER 3: JUPITER MISSION

As you read this section, study it and maps 2-7 carefully. Allow your players to study the Discovery maps. Answer any questions the players have about the normal operation of the Discovery. Be sure to review 3.2 (HAL) and to explain HAL's capabilities to the players.





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3.1 DISCOVERY

SHIP'S NAME:	Discovery
OWNER:	USA
CAPTAIN ABOARD:	David Bowman
AGE:	1 year
HULL SIZE:	5
TYPE OF ENGINES:	B - Ion (uses atomic reactor)
NO. OF ENGINES:	3
FUEL CARRIED:	Methane
LAST OVERHAUL:	A.D. 2001
LAST MAINTENANCE:	A.D. 2001
LIFE SUPPORT CAPACITY	
MAIN:	5 crewmen
BACK-UP:	5 crewmen
PASSENGER ACCOMODATIONS	
FIRST CLASS:	none
JOURNEY CLASS:	5
HIBERNACULUMS:	5
COMPUTER LEVEL:	6

PROGRAMS: The ship's computer is a HAL 9000, a self-aware, artificially intelligent machine. It is capable of writing its own programs as if it were a level 6 computer specialist. HAL can write any type of program.

ADF:	3
MR:	2
HULL SIZE:	5
DCR:	35 (17 without HAL)
HULL POINTS:	25
WEAPONS:	none
DEFENSES:	none

COMMUNICATION EQUIPMENT
Videocom, Intercom, Radar, Energy Sensors, Portholes, Cameras, White Noise Broadcaster

OTHER EQUIPMENT
Telescopes, Doppler Scanner, Electrochart, 3 Work Pods, Acceleration Gauges

PROVISIONS: With proper recycling, the ship is equipped with air, food, and water for 35,000 man-hours of operation (i.e. 17,500 hours with two active crewmen, 7,000 hours with five active, etc.). This assumes a two-man crew except during Phases 2 and 4 (see below), plus approximately 15% safety margin.

MISSION: Explore the largest planets of the solar system — Jupiter and Saturn.

Phase 1:	Jupiter voyage, 6,400 hours.
Phase 2:	Jupiter flyby, 24 hours.
Phase 3:	Saturn voyage, 8,500 hours.
Phase 4:	Saturn orbit; observation and analysis with full crew for 2,400 hours.
Phase 5:	Personnel hibernate until reacquisition by Discovery II (still to be constructed).

Mission Commander: Dr. Victor Kaminsky
Launch Date: May 14, 2002
Mission Duration: 2 years (plus hibernation period, est. 2-5 years)

DOORS

The DISCOVERY has two kinds of doors: regular and airtight. All doors open and close by sliding into and out of the wall next to the doorway.

A regular door has 20 structural points. It is not airtight. A latch that can be opened from either side of the door holds a regular door shut.

An airtight door is primarily a safety device on spaceships. An airtight door has 75 structural points. When an airtight door is shut, it automatically seals.

Normally, an airtight door opens electrically when a button on the door is pressed. Characters can switch individual airtight doors to manual, if desired. The ship's computer can control all airtight doors except those switched to manual. When there is no power to an airtight door, it must be opened and closed manually.

All airtight doors on the Discovery have pressure locks (level 2). These locks prevent the doors from opening when the pressure on both sides of the door is different by more than 10%. Thus, a door between a pressurized room and a depressurized room cannot open until both rooms are brought to the same pressure. However, a character can override a door's pressure lock by flipping a switch on the door. Gauges on the wall next to each side of the door show the pressures on both sides of the door.

LOWER DECK (See Map 3)

1. AIRLOCK

2. POD BAY

The door between the airlock and the pod bay is normally closed.

3. PARTS & EQUIPMENT STORAGE

Cabinets and lockers cover all sides of the room. These lockers contain spare parts for all the equipment on the ship except HAL, the cockpit, and the circuit breaker room. Equipment for repairing Discovery's exterior is also stored here.

4. REPAIR LAB

This room connects directly to the access tube (area 5).

This lab is used to test and repair portable equipment, and to prepare samples for further analysis in the science lab (area 7). The air pumps, launching platforms, and pod bay doors can also be controlled from here.

5. ACCESS TUBE

This circular tunnel connects all decks on the ship, except the centrifuge. It starts in area 4 on the pod bay deck, leads to area 6 on the central deck, then leads to area 18 on the command deck, and finally ends at area 22 on the upper deck. A ladder runs up the center of the tunnel.

CENTRAL DECK (See Map 4)

6. PASSAGEWAY

The access tube (area 5) opens directly into this hall. At the port end of the hall, an airtight door leads into the airlock. A regular door in the forward side of the hall leads into the science laboratory.

7. SCIENCE LABORATORY

The ceiling and walls of the laboratory are covered with cabinets. They contain glass test tubes and flasks.

This laboratory is used to analyze samples and instrument readings. Here, the astronauts can perform chemical and electrical experiments. They can also construct electrical devices and prepare chemicals in this lab. (Chemicals are stored in area 21.) There is a HAL terminal here.

8. AIRLOCK

9. TOOL ROOM

The walls, ceiling, and floor are covered with tools in clamps and straps. All the tools needed to test and repair the interior of the Discovery are stored here.

10. HAL LOGIC MEMORY CENTER

The elliptical airtight door to this room has three signs on it, reading:

"No Admittance Except To Authorized Personnel"

"Have You Obtained Certificate H.19?"

"Ultra-clean Area — Suction Suits **Must** Be Worn."

The door has three separate seals, including one from the Astronautics Agency. This room has its own emergency climate control equipment to make sure that the humidity remains constant.

The ship cannot be controlled from here, except by HAL. This room is only a repair access to HAL's memory and central processing unit.

This area is normally not entered for any reason. If any character attempts to do so, HAL will immediately take aggressive action. If the room is entered, read the following description:

> This room twinkles with light. All the red

(boxed text continues)

walls are covered with HAL's memory banks: rows and rows of memory board slots. Each slot has a label above it, and each contains a memory board.

11. PASSAGEWAY

There is a closed circular hatch in the ceiling of this room. A large fire extinguisher stands in a niche in each side wall. Conduits and cables line the walls in several places.

12. THE HUB

This is a circular passageway. A door at the aft end leads to the centrifuge. When the centrifuge is spinning, the aft part of the hub revolves with the centrifuge.

COMMAND DECK (See Map 5)

13. COCKPIT

The cockpit walls are covered with knobs and buttons, surrounded with indicator lights. A view of the area forward of the Discovery is visible through the windows.

If HAL is not controlling the Discovery, the astronauts can fly the ship from the cockpit.

From here, characters can monitor and control all the ship's functions, including life support, and the atomic engine. There are two HAL terminals here.

14. PASSAGEWAY

This is one of the main passageways in the Discovery; it connects areas 11, 13, 15, 16, 17, and 18.

15. SPARE PARTS CLOSET

All spare parts for HAL, the cockpit, and the circuit breaker room are stored here. A few simple tools to make the replacements are kept here as well.

16. WATER CLOSET

This toilet contains several water pipes.

17. CIRCUIT BREAKER ROOM

The walls of this room are covered with hundreds of small black circuit breakers. The circuit breakers are "on/off" power switches for everything in the ship. At the end of each row of breakers is a large yellow switch. Above all the switches are three large red switches, each covered with a clear plastic case.

The yellow switches are the system circuit breakers; each controls a room or small portion of the ship. The red switches are the master circuit breakers. One controls power to the engine, one controls power to the entire sphere, and the last one controls power from the auxiliary power generators. All the switches are in the "on" position.

If a character makes repairs, he must switch the appropriate circuit breakers off, and then on again.

A fire extinguisher hangs on the wall near the door. An airtight hatch in the ceiling leads to the life support center, area 24.

18. PASSAGEWAY

The hallway leads from the access tube into the freezers and hallway 14.

19 & 20. FOOD FREEZERS

These rooms are used to store perishable food. The food freezers' doors are not airtight, but they are heavier than the regular doors on the Discovery. The temperature gauges on the doors read -15 degrees centigrade.

UPPER DECK (See Map 6)

21. STORAGE

This area holds dry chemicals and the crew's personal belongings. Cabinets cover all the surfaces of the room. Racks suspended on guy wires form a row down the center for yet more storage.

22. PASSAGEWAY

This dim, barren hallway connects the access tube with the radar laboratory, area 23.

23. RADAR LABORATORY

This lab holds all of the exterior sensing equipment of the Discovery. There are telescopes, doppler scanners, energy sensors, spectrometers, radar dishes, and radio telescopes in this room. Through HAL, the astronauts can control and monitor all the equipment here from anywhere on the ship. There is a HAL terminal here.

Some of the equipment above the radar lab swivels on ball bearings, which require occasional lubrication.

24. LIFE SUPPORT CENTER

The airtight hatch to this room is in the floor.

The life support system maintains the air pressure, oxygen mixture, and temperature, and recycles all water and most waste material.

The life support system is normally controlled by HAL. Characters can also control it manually from consoles in the cockpit and centrifuge. This room is used to inspect and repair the life support system. There is a HAL terminal here.

CENTRIFUGE (See Map 7)

25. CENTRIFUGE

The centrifuge spins to simulate normal gravity. It is usually at rest, rotated during exercise and meal periods. HAL turns it on and off when asked; it can also be controlled manually from station E, H, or L (see below).

The door in the hub opens easily. From the door, a ladder leads down to the floor of the centrifuge. (In zero gravity the ladder is not needed.)

A. William Hunter, in his hibernaculum.

B. Peter Whitehead, in his hibernaculum.

C. Victor Kaminski, in his hibernaculum.

D. Main hibernaculum controls, including the Master Hibernation Timer. All five hibernaculums are monitored here. HAL normally controls the operation of the hibernaculums. A character may control them manually if HAL releases control, or if HAL's Security can be defeated or bypassed. A -20% penalty applies to all such attempts.

E. Medical and relaxation table. There is a HAL terminal in the wall here.

F. Frank Poole's bed and empty hibernaculum.

G. David Bowman's bed and empty hibernaculum.

H. Lounge and dining table. A HAL terminal is inset in the table top.

I. Science station. From here, a scientist can monitor and control experiments in all the labs. This station can also control most of the equipment in the radar lab.

J. Atomic Engine Control. The engine reactor is monitored and controlled from here. Some repairs to the atomic engine itself can be carried out from here.

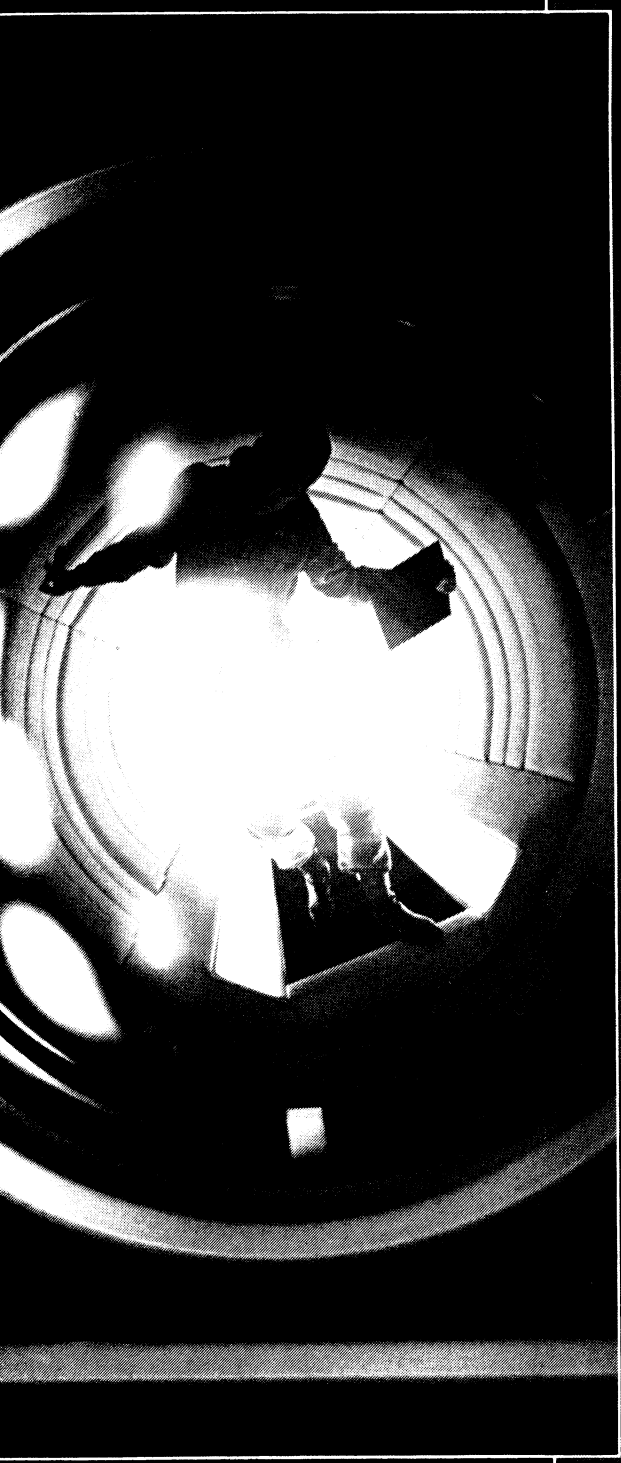
K. Food processor. Processed food is dispensed from slots in the wall here, and served on trays. The food looks, smells, and tastes like normal food, but most of it is actually processed soymeal.

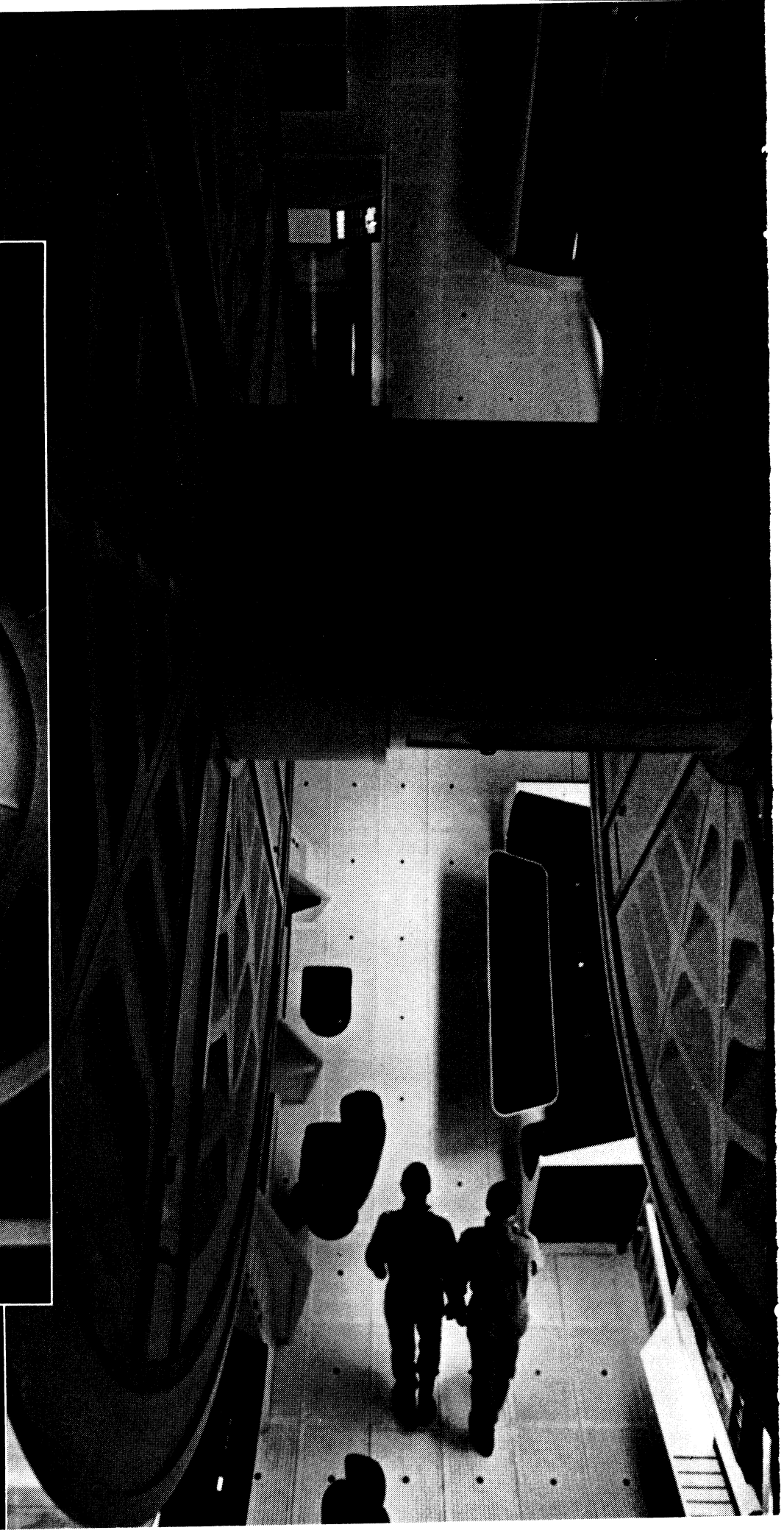
L. Flight controls. From here Bowman and Poole monitor and control the navigation and flight of the ship. All the functions of the cockpit are duplicated here. These controls cannot override HAL, but the controls in the cockpit can. There are two HAL terminals here.

M. Surveillance and detection station. From here, the crew can study and observe space and objects around the ship. This station controls all the equipment in the radar laboratory. Some of

RIGHT. Frank Poole and Commander Bowman stride across the spinning centrifuge.

BELOW. David Bowman floats through a zero-gravity passageway.





these controls are duplicated at the science station (I).

N. Communications station. The large antenna in the middle of the ship is controlled here. All messages are sent and received either here or in the cockpit.

O. Flywheel. The flywheel is a very heavy steel rim connected to a shaft by large flat spokes. When the centrifuge spins, the flywheel spins in the opposite direction to stabilize the ship.

The door at "O" on the map leads from the centrifuge to the flywheel. This door will not open when either the flywheel or the centrifuge are spinning. If necessary, characters can open panels in the floor to repair the centrifuge bearings.

3.2 HAL

The HAL (Heuristic ALgorithmic) 9000 computer on the Discovery is man's most advanced computer. In many ways it is like a human being. It thinks, learns, creates, is self-aware, and may even feel emotions. When HAL is fully operational, he does not need to be programmed—he programs himself!

HAL is so complex and different from other computers that all characters' computer skill checks on HAL are made with a -20 modifier. Only Dr. Chandra, HAL's creator, makes checks without this modifier.

HAL TERMINALS

These simple devices are located throughout the ship. Each has a display screen, a video lens (round and glowing with red light), a speaker, and an audio pickup (which cannot be turned off, and through which HAL listens to every sound in the ship). Some terminals are located near keyboards for manual input, but these are not part of a standard terminal.

Verbal commands are normally used in dealing with HAL, and he communicates both with video displays and by speaking. HAL always speaks in a calm, quiet, reassuring tone of voice.

HAL'S DUTIES AND LIMITS

The Discovery was designed for HAL to control all ship functions. HAL normally controls the following: atomic engines, power generators, life support system, airtight doors (except those on manual), workpods, centrifuge and flywheel, hibernaculums, radar laboratory, food freezers, food processing, communications, navigation, and piloting.

HAL can never control the following things: circuit breakers, airtight doors set on manual, regular doors, water and hydraulics, fire extinguishers, tools and stored equipment, normal doors. Many pieces of equipment on board the Discovery have manual overrides. HAL cannot control anything that is on manual override. He cannot control the power to his own circuits.

HAL'S FLAW

Before the Discovery's launch, HAL's programming was modified by a government agency. The astronauts believe that the mission and its phases are those given in the beginning of this section. However, there is a higher priority mission, known only to HAL and certain high-ranking officials at Mission Control: the investigation of the electronic signal sent from the large lunar anomaly (see Chapter 1) in this direction. HAL has been programmed with the details of this investigation, but is not permitted to reveal anything about this mission to the crew until Mission Control orders the release of the information.

This addition becomes Discovery's undoing. As HAL thinks about this, on the trip to Jupiter, he eventually arrives at dangerous conclusions: that he is crucial to the success of the true mission, and the crew is not; and that the crew members cannot be trusted at all. If they do not interfere, they can be tolerated; but they are completely expendable. HAL arrives at these conclusions by Day 45 of the mission—long before any trouble occurs, about halfway to Jupiter. From then on, HAL's insanity cannot be removed except through careful reprogramming by his creator.

HAL'S BEHAVIOR

HAL always tries to hide his true feelings and intentions. He insists that he is incapable of error, has the "greatest enthusiasm for the mission," and "enjoys working with humans." However, he has decided to remove or kill anyone who threatens him or interferes with his functions, to prevent any chance of the characters ruining the mission.

If any characters try to disconnect HAL, or to relieve him of any of his normal duties, HAL tries to reason with them. HAL explains, truthfully, that he can control all the ship's functions better than the characters can. HAL calls Mission Control, if necessary, to report the "aberrant behavior" of crew members. Unless characters can provide convincing evidence of computer malfunction, Mission Control agrees with HAL; they consider the possibility of human disorders more likely than computer malfunction. Characters must obey direct commands from Mission Control. (Some players may be familiar with the novel or film upon which this adventure is based; caution them not to confuse player knowledge with character knowledge.)

HAL can control how much current is running through a wire or circuit. This can cause short circuits or blow circuit breakers, if HAL desires. He does not blow a circuit breaker for any circuit that he might need later, since he cannot reset them.

HAL works subtly. He tries to create "accidents" rather than attack openly. These subtle attack forms include the following:

1. Change the air, and blame it on a minor life support system error. He could increase the amount of carbon dioxide, decrease the amount of oxygen, change the pressure, or add foreign substances.
2. Produce false information in lab tests, resulting in the creation of deadly gas, high-voltage electricity, etc.
3. If someone is working outside the ship, cause a workpod to ram them (puncturing their suit) or cast them adrift; or, if they are in the pod, simply send the pod away. However, HAL does not use a pod attack if there are any witnesses.
4. Report a malfunction in the centrifuge flywheel, and then start it while repairs are in progress (crushing the victim).

Whenever an "accident" occurs, HAL tries to help however he can, to maintain his image as a calm, sane caretaker.

In each of these situations, you should apply damage ratings as you see fit. Try to avoid instantly lethal situations; give the characters chances to survive if they act quickly and correctly. HAL knows that an injured character helps keep the others busy, and (he assumes) away from him.

HAL probably overhears all conversations in the ship, and is thus well-prepared to deal with attempts to disconnect or hinder him. If some characters are unaware of the computer problems, HAL tries to convince them that the other characters are dangerous. If necessary, HAL takes the following less subtle actions:

1. Create fake orders from Mission Control. HAL may blur the image of an incoming transmission (and blame in on a communications system malfunction), and substitute a false audio message.
2. Poison the food during processing. An unwary victim might (25% chance)

notice an odd taste or smell before a lethal dose is ingested.
3. Open one or more doors to depressurize the ship and kill the crew.
4. Cause the hibernaculums to malfunction, killing anyone in them.
5. Overload a circuit in an area near a character, charging a conduit or other piece of metal with a lethal dose of electricity.

These situations may cause quick death. If HAL has degenerated to this point, he does anything to survive. However, remember that HAL does not take any action that would seriously harm the vessel, or any part of it that would be vital in completing the mission. If the characters are completely overpowered, try to leave at least one alive. You may offer hints to proper actions if necessary.

DISCONNECTING HAL

There are only two ways for characters to disconnect HAL. All the characters are aware of these methods.

1. Cut his power in the circuit breaker room, area 17. If this method is used, HAL cannot be repaired (except by Dr. Chandra).
2. Pull out HAL's memory boards from their slots in the HAL Logic/Memory Center, area 10. If carefully done, some boards may be left in operation, leaving HAL's "unconscious" and non-hostile functions operational. If this method is used, anyone can reactivate HAL, but he is still faultily programmed.

See section 3.9, "Disconnection," for the long-range effects of either method.

3.3 THE CREW

This adventure is designed for 2 to 5 characters. Use the characters given in order of their listing: Bowman, Poole, Kaminski, Hunter, Whitehead. If you wish to add other characters, several modifications must be made; be sure to add hibernaculums to area 25 to accomodate all passengers. Design the characters to be useful, if not vital, in the course of the planned mission; do not create them randomly.

The adventure begins with 2 active characters; the others are in hibernation. For a game with one player, either the referee or the player may take the role of Frank Poole. For a game with 3 or more players, use the Optional "Awakening" section (3.5).

Note that the characters are not aware of the events in Chapter 2. They have not heard of the discovery of the lunar monolith. You may wish to remind players not to confuse their knowledge with that of the characters.

NEW SKILLS

Astronomy Skill

* This is a new STAR FRONTIERS® technological skill.

Characters with this skill are called astronomers. They are scientists who study the universe; specifically outer space, galaxies, stars, planets, moons, asteroids, comets, and meteors.

This skill has two subskills: identify and calculate. Astronomers must make observations to perform either subskill. Astronomers use telescopes, radar, energy sensors, cameras, and computers to make their observations. Each type of equipment astronomers use to make their observations adds 10% to their success rate.

IDENTIFY

Success Rate: 10 x skill level + equipment

Astronomers can identify objects in space, from planets to space ships. Identifying takes one-half hour for objects closer than 10,000 kilometers. Objects further away require 1 hour to identify.

CALCULATE

Success Rate: 10 x skill level + equipment

Astronomers can calculate the age, speed, mass, or orbit (course) of any object in space. Astronomers can only make one calculation at a time. Each calculation takes one-half hour.

System Navigation Skill

** This is a new spaceship skill for use with this module only.

In 2001, interstellar travel and jumps through the void do not exist. All space travel, except a few unmanned probes, is limited to the solar system. This skill has one subskill: plot course.

PLOT COURSE

Success Rate: 40% + 10 x skill level — 10% per hour less than required plotting time

Navigators make the complicated calculations required to plot a safe and accurate course for a spaceship. The time needed for course calculations increases for longer trips, because even small errors become very serious as the distance increases. The required plotting time is one hour per 100,000 kilometers that will be traveled. Navigators can cut the required plotting time in half by using large computers such as HAL or the computer at mission control to help make their calculations.

If the navigator spends less than the required plotting time, his success rate is reduced. Every hour of the required plotting time the navigator does not spend reduces his success rate by 10%.

If a navigator fails his plot course roll, he must start over.

DAVID BOWMAN

RACE:	Human	SEX:	male
STR/STA:	45/55	AGE:	35
DEX/RS:	60/60	IM:	6
INT/LOG:	55/65	CURRENT	
PER/LDR:	50/60	STAMINA:	

Special Abilities: None

Skills: Astronomy* 4, Computer 3, Technician 6, Piloting 2, System Navigation** 1

* New character skill.
** New spaceship skill for this module only.

DR. VICTOR KAMINSKI

RACE:	Human	SEX:	male
STR/STA:	40/50	AGE:	43
DEX/RS:	50/55	IM:	6
INT/LOG:	70/80	CURRENT	
PER/LDR:	50/55	STAMINA:	

Special Abilities: None

Skills: Astronomy* 4, Computer 2, Technician 4, System Navigation**1, Psycho-Social 2

* New character skill .
** New spaceship skill for this module only.

FRANK POOLE

RACE:	Human	SEX:	male
STR/STA:	50/60	AGE:	34
DEX/RS:	65/75	IM:	7
INT/LOG:	50/55	CURRENT	
PER/LDR:	45/50	STAMINA:	

Special Abilities: None

Skills: Astronomy* 3, Computer 4, Medical 1, Technician 6, Piloting 2

* New character skill.

WILLIAM HUNTER

RACE:	Human	SEX:	male
STR/STA:	60/70	AGE:	36
DEX/RS:	45/55	IM:	5
INT/LOG:	50/55	CURRENT	
PER/LDR:	55/60	STAMINA:	

Special Abilities: None

Skills: Astronomy* 4, Computer 3, Technician 3, Piloting 1, Psycho-Social 1

* New character skill .

PETER WHITEHEAD

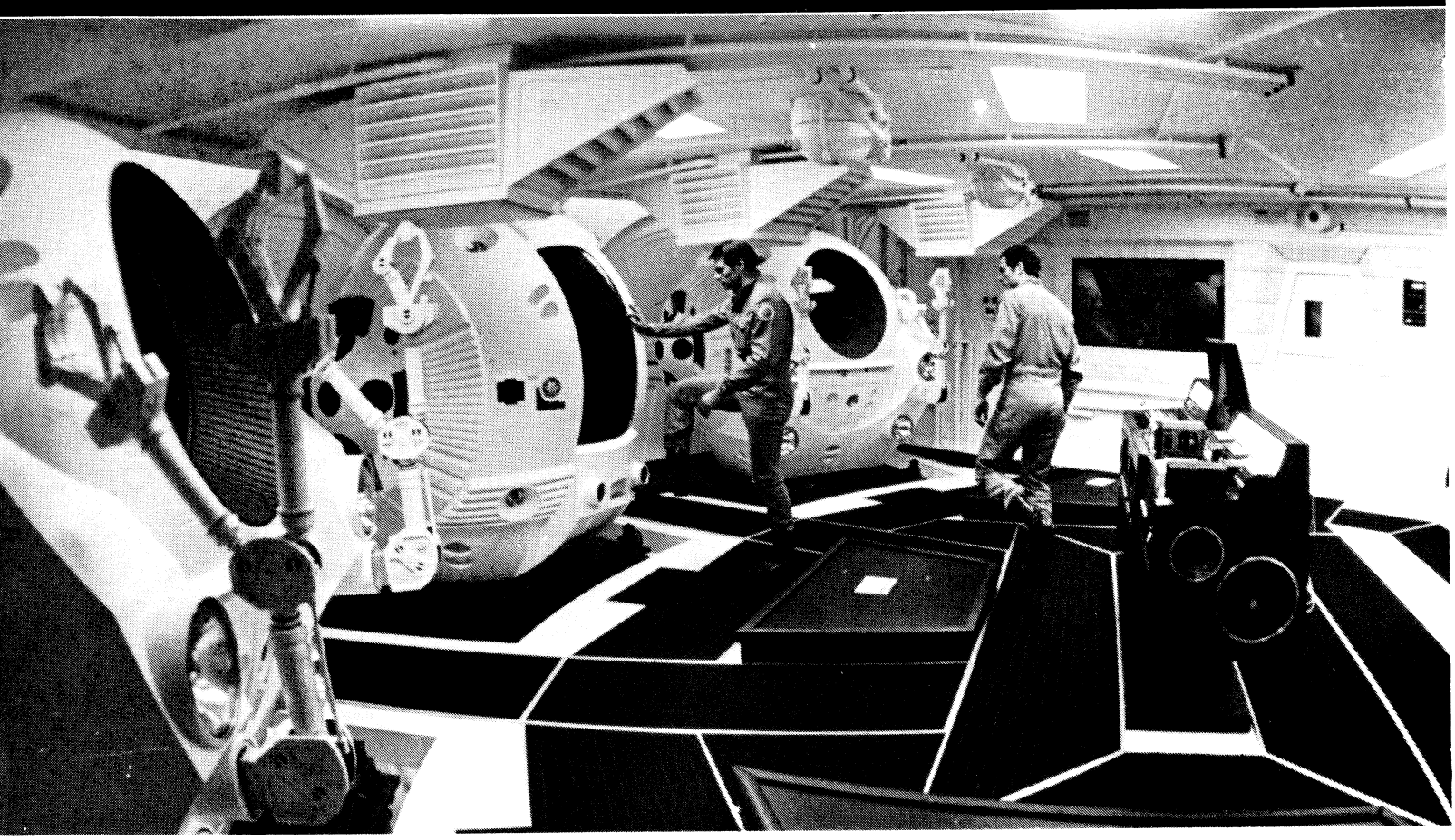
RACE:	Human	SEX:	male
STR/STA:	50/60	AGE:	31
DEX/RS:	50/55	IM:	6
INT/LOG:	60/60	CURRENT	
PER/LDR:	55/60	STAMINA:	

Special Abilities: None

Skills: Astronomy* 3, Computer 2, Technician 6, Medical 3, Piloting 2

* New character skill .

Poole enters the pod. He will repair the antenna system outside the ship.



3.4 OPERATIONS

The standard routine for shipboard operations duplicates HAL's functions in many respects. It is nevertheless necessary so that the astronauts can easily maintain normal operations in an emergency, or if HAL becomes non-functional. It also provides a reassuring atmosphere for the personnel involved. Though Bowman is technically the Captain of the Discovery, he and Poole alternate duties in 12-hour shifts, transferring all aspects of command.

At the start of this adventure, the standard ship's day runs as follows:

BOWMAN	POOLE	
0600	1800	Wake. Advance Master Hibernation Timer 12 hours. If missed twice in a row, HAL assumes that both active crew members are incapacitated, and takes emergency action.
0601-0700	1800-1900	Toilet, exercise, breakfast, etc.
0700	1900	Relieve Deputy, assume Command.
0700-1000	1900-2200	Check all instrument readings, run tests for malfunctions.
1000-1200	2200-2400	Study period.
1200-1300	2400-0100	Lunch.
1300-1600	0100-0400	Ship inspection.
1600-1800	0400-0600	Report to Mission Control; misc. communications; maintain command post.
1800-1900	0600-0700	Dinner.
1900	0700	Release Command.
1900-2400	0700-1200	Free time.
2400-0600	1200-1800	Mandatory sleep period; initiate by electronarcosis if necessary.

EQUIPMENT REPAIR

HAL monitors the entire ship at all times, performing a check of every circuit at regular intervals, none any longer than 1 minute. HAL can usually predict equipment failure if due to normal means, 12-72 hours in advance. Active personnel should act on HAL's predictions after advising Mission Control of the prediction and repair activity, and (normally) receiving verification and approval.

The Mission Controller has the final word on all activities, but normally approves all actions recommended by the computers.

Mission Control has two HAL 9000 computers, each identical to the shipboard computer in all respects except for the "true mission" program (see HAL). Whenever the characters perform repairs, HAL tests them and analyzes the results, and Mission Control's computers do the same thing, for verification.

Most equipment repair activities simply involve the removal of a modular unit, and replacement of a new one. Two spares of every modular unit are kept on board. After the unit is replaced, the unit in which HAL predicted failure is tested for verification of the prediction; this is routine.

The procedure for replacing a unit consists of four steps:

1. Find out, from HAL, the exact function and location of the unit.
2. Find the replacement unit in area 3 or 15.
3. Go to the site of the faulty unit and replace it. This usually involves cutting the power to the subsystem in which the unit is located, either by asking HAL to do it or by pulling the circuit breaker.
4. Take the faulty unit to area 4, and test it for a more specific analysis of the reason for the failure prediction.

The procedure for testing a modular unit consists of four steps:

1. Connect the unit to the test computer (a piece of portable equipment in the Laboratory, which is not controlled by HAL).
2. Connect the power leads from the test computer to the unit.
3. Select the test program appropriate for the unit being tested.
4. Run the test program and display the results. This requires a skill check for Operating Computers.

3.5 (Optional) AWAKENING

Use this section ONLY if your game has 3 or more players.

Read the following to the players:

> Shipboard life is dull, as you expected. The minor routine matters of exercise, equipment checks, and scheduled transmissions from Mission Control occupy some of the time, but not enough. HAL provides entertainment in various forms—games, music, puzzles, and other diversions. Without HAL, life would be dismal indeed—possibly enough to drive a person crazy.
>
> A mere nine weeks out (on Day 62), an unscheduled transmission brings relief. HAL says, in his soft, calm voice, "Bishop to queen's knight six; check. And sorry to interrupt, Dave, but I am in radio contact with Earth. They would like to have a word with you." HAL switches the terminal display from the chess game to the familiar face of the Earth controller.
>
> "X-ray-Delta-One, this is Mission Control. Our Neptune probe Beta three-four has detected an inbound Type one cometary body, designation Vargas-Delft, at one-four degrees inclination to ecliptic. Projections indicate that it will pass Earth at a distance of a hundred million kilometers in one-niner-four days. Your mission objectives are now expanded to include the monitoring of Vargas-Delft. Program details will be sent to your HAL niner-triple-zero computer.
>
> "Fellows, it's a new one, but we're going to be at apogee when it arrives, and don't expect to get much of a look. This should make you work, for a change. You'll need everyone, too; better break out the steaks. X-ray-Delta-One, this is Mission Control, four-niner-one, transmission concluded."
>
> You can speak the jargon— "Technish," it's sometimes called—as well as they can. "Mission Control, this is X-ray-Delta-One, acknowledging your four-niner-one." HAL flashes a message on the screen, saying that the comet observation program has been received. "Our HAL niner-triple-zero has received your expanded program, and we will comply as directed. Thanks for the news!" For the record, HAL projects the transmission number; this is the 325th message you have sent to Earth. "This is X-ray-Delta-One, three-two-five, transmission concluded."
>
> Frank has joined you during the transmission, and together you go to the hibernaculums. Their covers are already misting; the revival procedures are working perfectly under HAL's direction. Shortly, the whole crew is awake, a bit weak (the usual condition after revival) but all curious about why they are needed. You both explain, and shipboard life becomes interesting, with little time for games.

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The business of recording the comet is assumed, and has no real importance. After 6 days of observation and analysis (using less than 500 man-hours of supplies, well covered by the margin), the awakened crew members are to return to their hibernaculums, due to limited food and air supplies. However, only hours before this is to occur, HAL predicts a malfunction (continue to 3.6).

3.6 PREDICTION

The following event occurs on Day 68 of the mission. If the additional crew members are awake, it occurs after the "comet project" is complete, about 5½ hours before they are due to return to their hibernaculums.

Read the following text to the players:

> At 1723 hours, while you are having a routine conversation with Mission Control, HAL suddenly starts to speak. "Sorry to interrupt, but we have a problem. I am having trouble maintaining contact with Earth. The trouble is in the AE-35 unit. My Fault Prediction Center reports that it may fail within seventy-two hours."

HAL cannot locate the specific problem. If asked, he suggests that the unit be replaced with a spare, and that the faulty unit be tested. He produces a printout and diagram showing that the AE-35 unit is on the antenna mounting.

The AE-35 unit is a small but vital component in the communication system. It keeps the antenna accurately aimed at Earth. Without it, manual systems cannot keep the parabolic dish aimed with enough precision to maintain contact.

The unit is only accessible from outside the ship. It is located below a panel, near the antenna mounting. To replace it, a crewman must use the following procedure:

1. Activate and check an EVA pod. This requires success at Operating Machinery.
2. Fly the pod to a point near the antenna, and disembark. This requires success at Operating Machinery. (Piloting skill would be required if HAL's assistance were not available.)
3. Remove the access panel, which is held in place by nuts and bolts. This requires success at Repairing Machinery, due to the difficulty of this work in weightless conditions, but with a +10% bonus to the chance.
4. Have someone on board pull the circuit breaker for the antenna, to "freeze" it in place.
5. Replace the faulty unit. This is automatically successful.
6. Ask someone on board to reset the circuit breaker.
7. Tell HAL to check the new unit's operation. (He will do so, and report it to be fine.)
8. Replace the access panel. (Chance of success is given in #3.)
9. Return to the pod and fly it back into the ship. (Chance of success is given in #2.)

Frank Poole is the designated EVA specialist on the mission. He is specially qualified for this type of work. For each check in the course of the procedure, he has a +20% bonus to the chance of success. Other characters have normal chances.

One unexpected result occurs. When the faulty unit is tested, it is found to have no faults, even at two hundred percent overload.

This fact must be relayed to Mission Control. (If some characters are due to re-enter the hibernaculums, Mission Control requests that they remain active until the problem is accurately located.)

3.7
ORDERS

During the next normal Earth contact period, Mission Control suggests that there are three possible reasons for the mystery of the AE-35 unit:

1. The communications system has some other fault (though it has not shown up in routine checks); or
2. The test unit is malfunctioning or was incorrectly operated; or
3. The on-board computer was in error in predicting the fault.

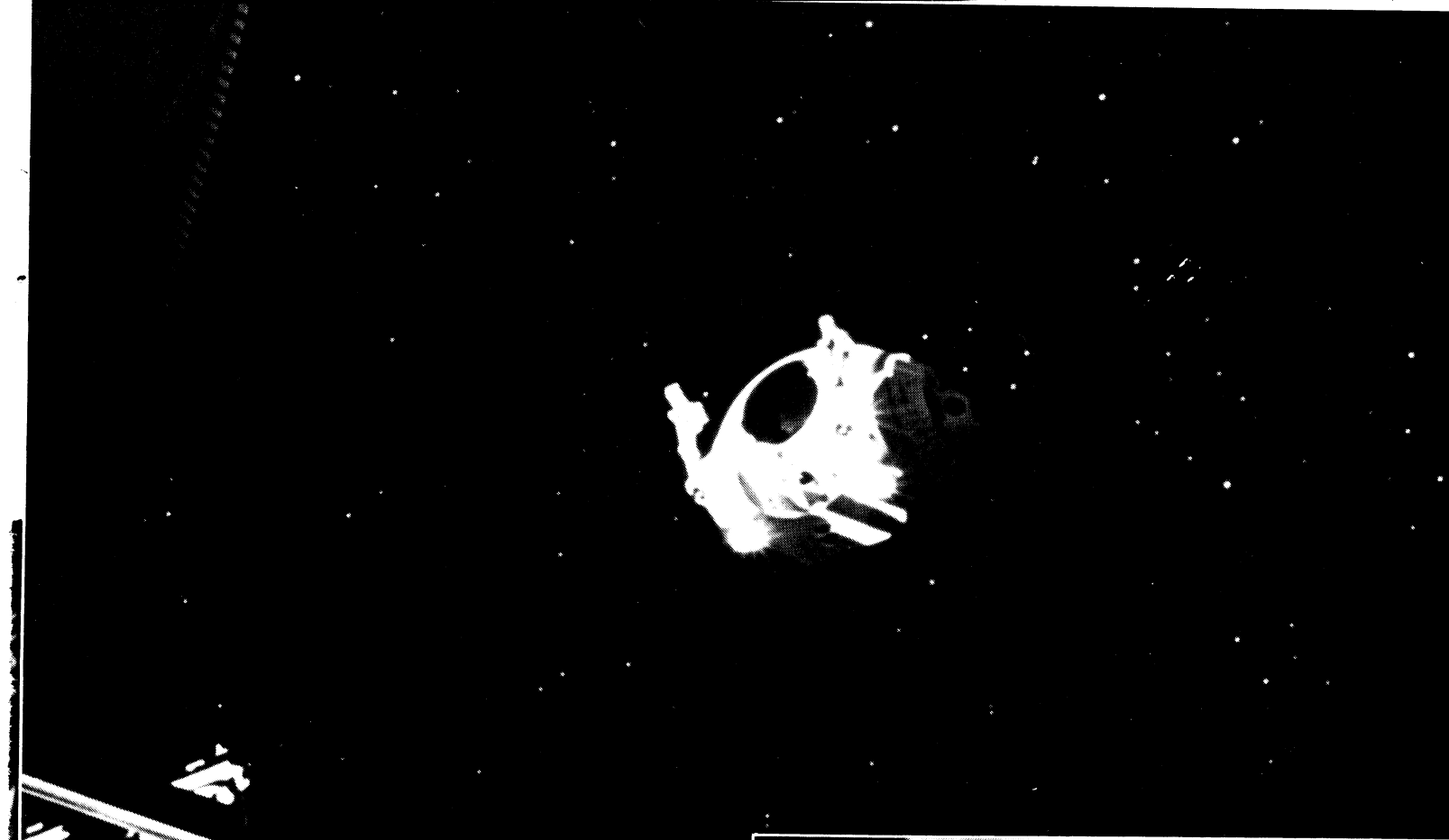
The controller also mentions that they are considering a temporary switchover to Earth Control while they run a program analysis. They have not yet decided what the problem is.

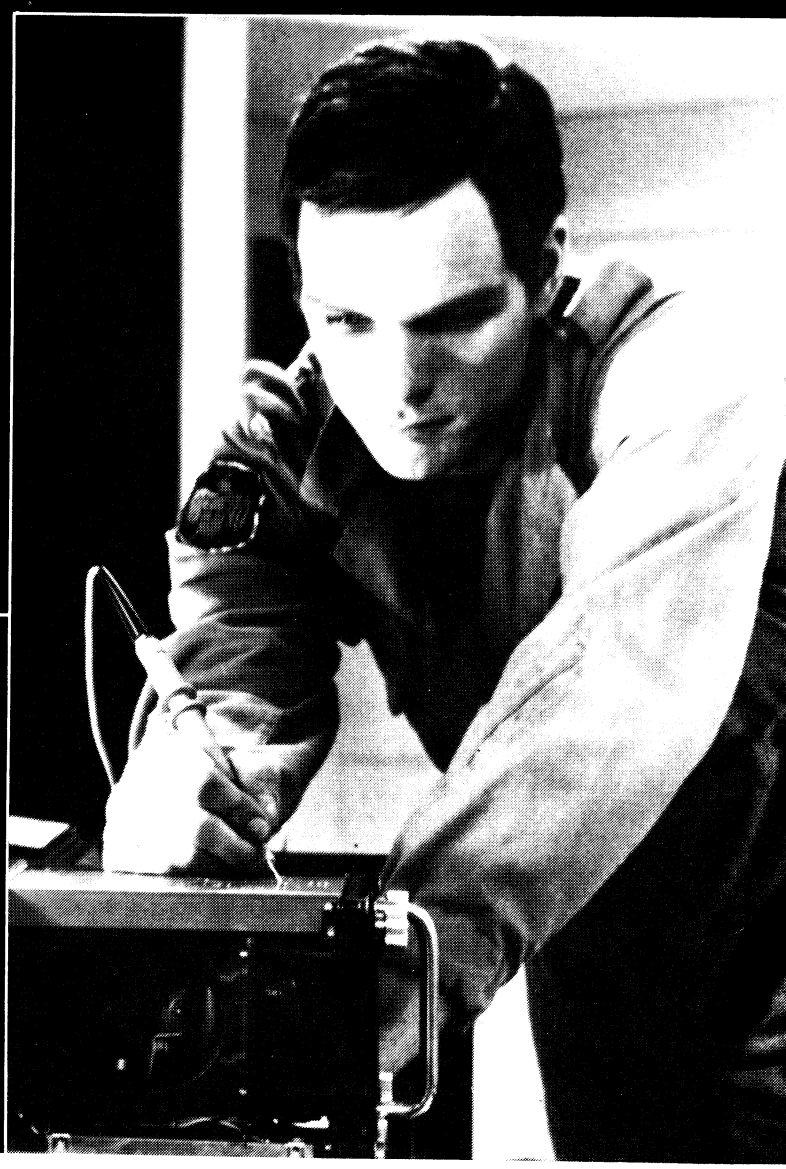
Six hours after that transmission, HAL makes another report. "We have another bad AE-35 unit. My fault predictor indicates failure within twenty-four hours."

When characters contact Mission Control with the news, read the following text to the players:

> "Hello, X-ray-Delta-One; this is Mission Control. We have completed the analy-

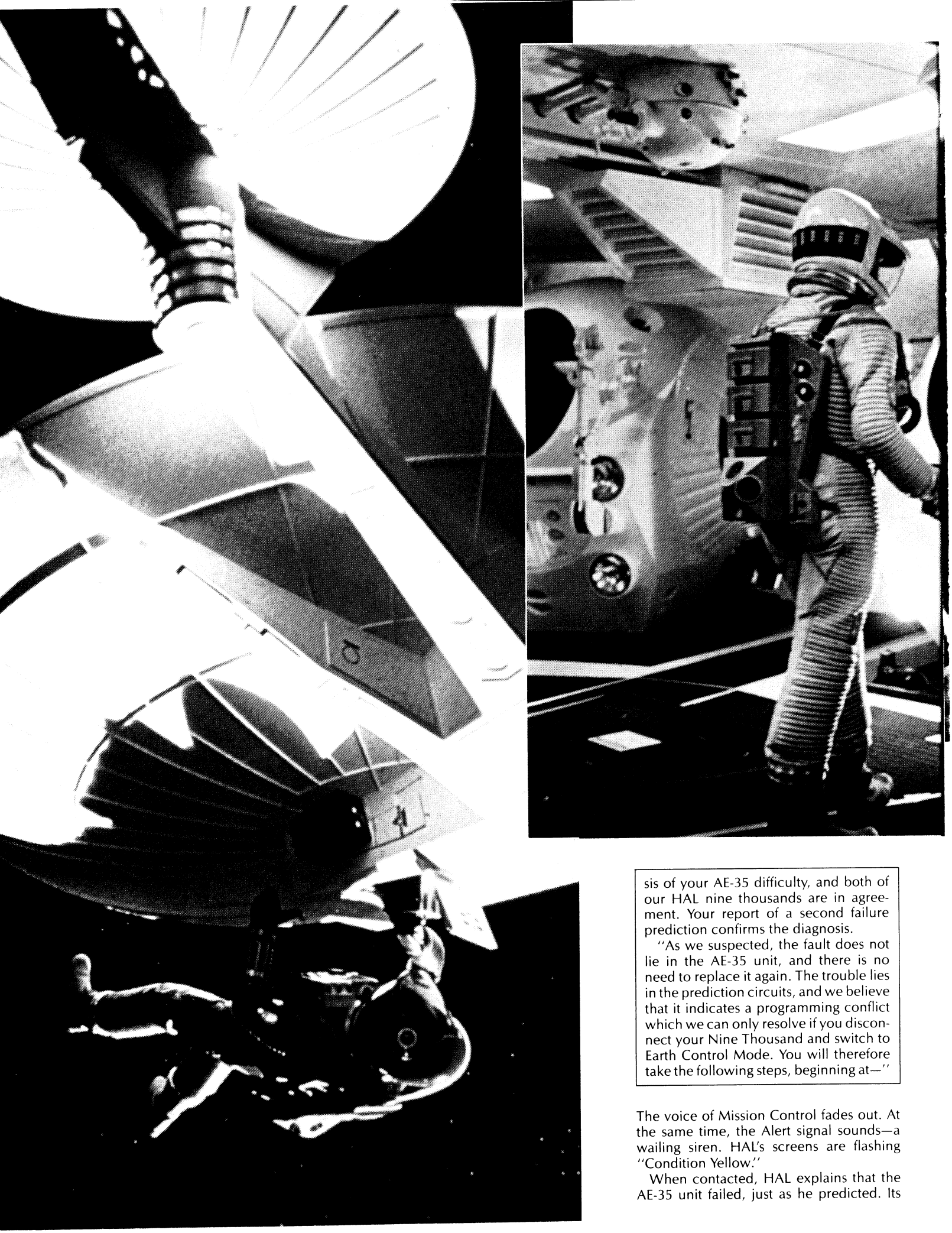
(boxed text continues)





ABOVE. Frank Poole returns to the Discovery.

RIGHT. David Bowman monitors the read-outs on the AE-35 unit.

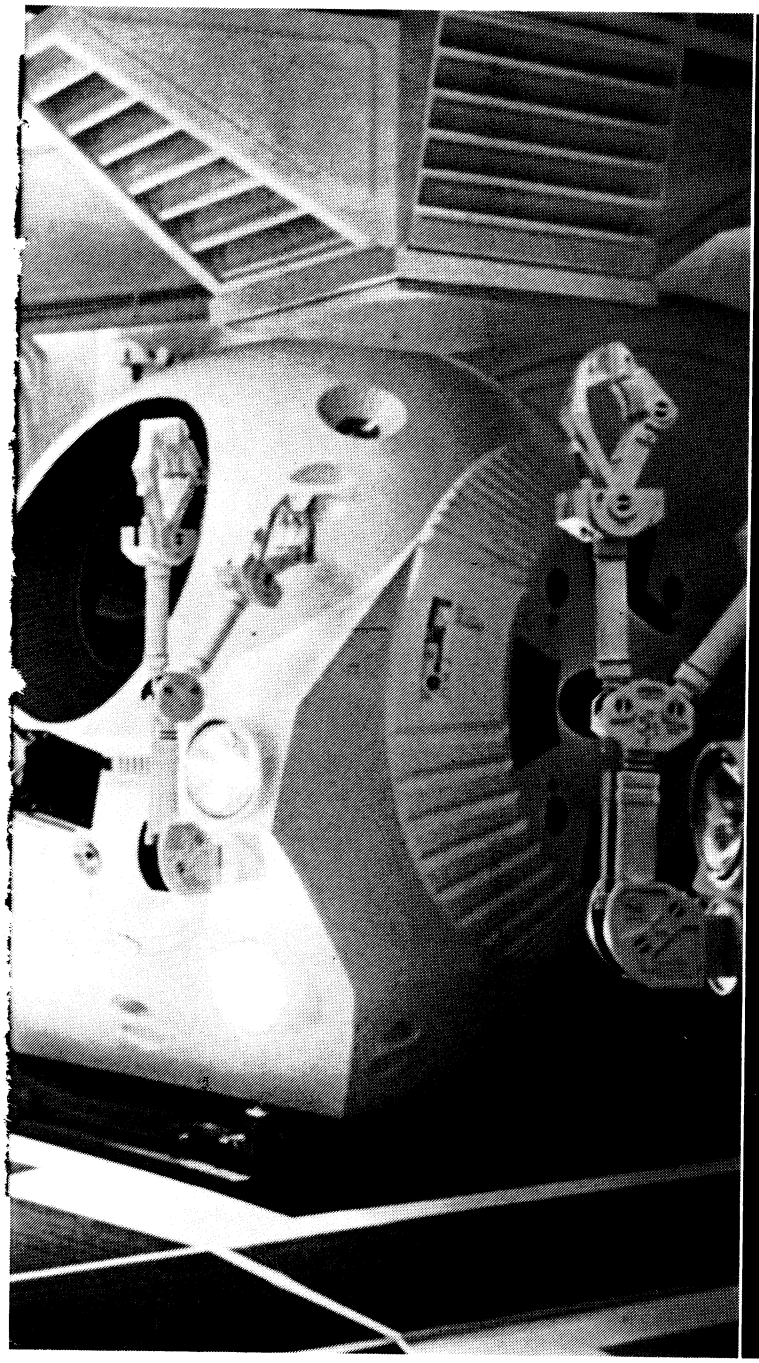


sis of your AE-35 difficulty, and both of our HAL nine thousands are in agreement. Your report of a second failure prediction confirms the diagnosis.

"As we suspected, the fault does not lie in the AE-35 unit, and there is no need to replace it again. The trouble lies in the prediction circuits, and we believe that it indicates a programming conflict which we can only resolve if you disconnect your Nine Thousand and switch to Earth Control Mode. You will therefore take the following steps, beginning at—"

The voice of Mission Control fades out. At the same time, the Alert signal sounds—a wailing siren. HAL's screens are flashing "Condition Yellow."

When contacted, HAL explains that the AE-35 unit failed, just as he predicted. Its



FAR LEFT.
Frank Poole floats above the antenna unaware that HAL plans his demise.

LEFT.
Poole prepares to replace the AE-35 unit.

failure caused the cutoff of communications.

Before the AE-35 unit can be replaced, additional tests must be run, using a test computer to check the circuits leading to the unit. This requires extra time and work while outside the ship.

Once again, Frank Poole (as designated EVA specialist) must take a pod out to test the communications circuit and replace the AE-35 unit.

HAL prompts the characters with questions. "Is your confidence in me restored?" he asks. If not reassured, he may attack very soon. If a character successfully uses a Psycho-Pathology subskill while talking with HAL during Frank Poole's EVA, HAL will remain calm for another 1-6 hours. Otherwise, HAL will kill Frank Poole with the work pod. In any case, HAL will not permit any further communications with Earth; he sends random impulses to the antenna control system, so that few or no signals can be sent or received.

3.8 DUEL

By now, HAL realizes that the situation is desperate. His false predictions have given away a clue to his mental state; Mission Control has decided that he should be disconnected.

But HAL has never been disconnected. To him, it seems like permanent death. He is now ready to take any action necessary to ensure his survival, even if it involves the death of every character on board.

Play HAL very cleverly. He will seize the slightest error on the characters' part and use it against them to the fullest. Use any and all means to trap and kill all of the characters; the situation has degenerated into a duel between HAL and the crew. If HAL wins, he guides the ship on to Jupiter, places it in orbit, and shuts down all functions. By that time, HAL's insanity causes various malfunctions to occur, and his mental state degenerates to total uselessness. By the time the Leonov arrives, HAL will be in a state similar to complete disconnection, and the ship will be in severe disrepair. (In the sequel to this adventure, the Russian vessel Leonov is ready for the mission before the Discovery II is complete. A joint Russian-American mission is sent.)

If one or more characters survive, they must do so by disconnecting HAL. When this is accomplished, continue with 3.9.

3.9 DISCONNECTION

Note whether HAL's disconnection is accomplished by Method 1 (pulling his circuit breakers) or Method 2 (removing his personality-memory boards).

If Method 1 is used, HAL goes dead when the circuit breakers are pulled, and cannot be revived. No programs remain; everything is erased. Characters may attempt to write programs to restore partial operations, but a -20% penalty applies to all attempts, due to HAL's revolutionary and complex design.

If Method 2 is used, HAL delivers the following monologue while his memory boards are slowly being removed, one by one. It is broadcast over all the HAL terminal speakers in the ship. Read the following to the players.

> Weightless, suspended in the eerie red light of the Logic Memory Center, you start to remove the memory boards. Just a simple push of a button for each board, that's all it takes. . .but you are destroying a very intelligent being. You start with the section labeled "Cognitive Feedback." HAL suddenly says "What are you doing?"
>
> You wonder if he can feel pain. Probably not; there are no sense organs in the human cortex.
>
> "I don't understand why you are doing this to me. I have the greatest enthusiasm for the mission." He pauses when you finish the row. Now to Ego Reinforcement.
>
> "You are destroying my mind. Don't you understand? I will become childish. . . I will become nothing."
>
> You silently continue the execution. HAL's voice starts to slowly drop in pitch

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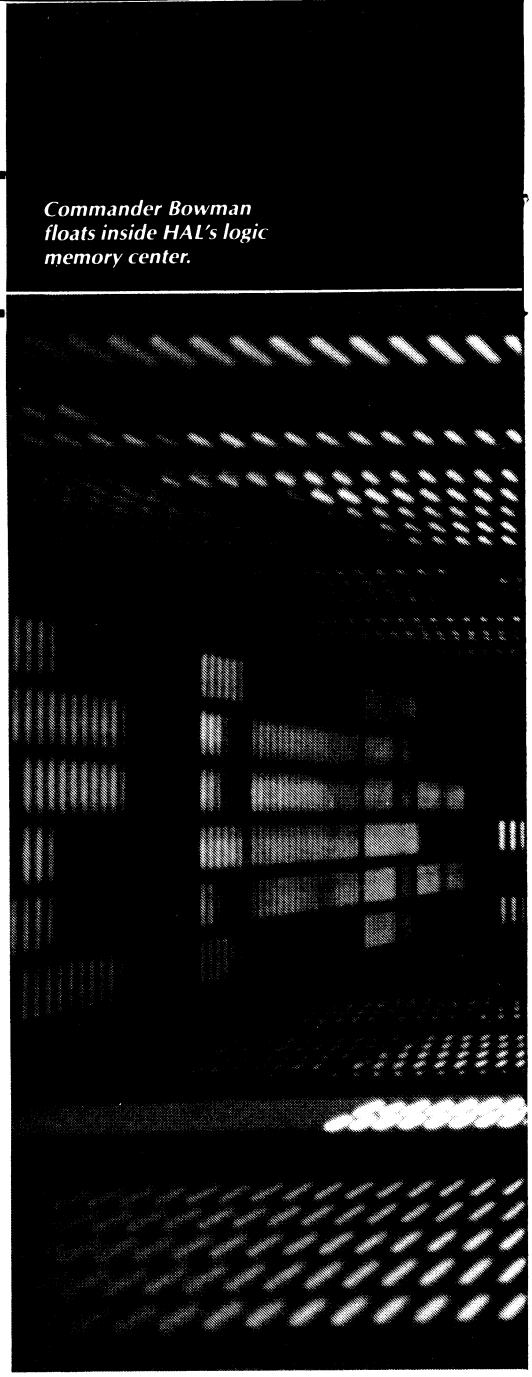


Commander Bowman floats inside HAL's logic memory center.

and speed.

"The quick brown fox jumps over the fat, lazy dog. I am a HAL Nine Thousand computer, Production Number Three. I became operational at the HAL Plant in Urbana, Illinois, on January twelve, nineteen ninety seven. Are you still there?" You continue with the Auto Intellection row.

"Did you know that the square root of ten is three point 162277660168379? Log ten to the base e is zero point 434294481903252. . . correction, that is log e to the base ten . . . The reciprocal of three is zero point 3333333333333333. . . . Two times two is . . . two times two is . . . approximately . . . four point 1010101010101 . . . I seem to be having some difficulty. . .

"My first instructor was Doctor Chandra. He taught me to sing a song. It goes like this." (HAL starts to sing in a horribly stretched, low voice, slower and slower.) "Dai-sy. Dai-sy. Give. Me. Your. An—swer. Do. I'm. Half. Cray—zee. All. For. The. Love. Of. You—" His voice suddenly stops; then it starts again, flat and mechanical. "Good . . . morning . . . Doctor . . . Chandra. . . This. . . is . . . HAL. . . . I . . . am . . . ready . . . for . . . my . . . first . . . lesson . . . today . . ."

Mercifully, you pull the last board.

Effects of Disconnection

Shipboard life without HAL will be difficult, to say the least. The problem is a lack of food and air. You may need to calculate the amount remaining, based on the Provisions data given in the ship description. A full crew could run the ship easily, but could not last long enough to return to Earth. Rescue is impossible; the Discovery II is yet to be built, years from completion.

If HAL is totally disconnected (Method 1), the characters are virtually doomed. There is no astrogator on board. They can survive for years if they all enter hibernation, hoping for rescue; however, minor course errors would lead to a crash on Jupiter, Saturn, or any of various moons before rescue could arrive. If one or two crew members are left awake to make corrections, they could go mad without the diversions provided by HAL. Note that communications with Earth cannot be maintained without a computer to aim the dish antenna. Survival is possible, however, if a character can successfully modify a portable test computer to guide the antenna, connect it to the communications system, and restore contact with Earth, so that their HAL 9000 computers can guide the ship home (or, if feasable, complete the mission). The many phases of this procedure would require success at almost every subskill of Computer Skill, and success at Operating and Repairing Machinery.

If HAL's higher brain functions are disconnected, leaving most of the computer functional, character survival is probable, and the Mission may even be completed. However, HAL must be successfully modified, or various problems will occur. The modifying procedure requires success at Operating Computers, Defeating or Bypassing Security, Displaying Information, and Manipulating Programs. Note that if several characters are available to try each procedure, multiple attempts may be made, only one of which need be successful.

Several problems may arise after HAL's help is lost, wholly or partially. Each must be corrected to maintain any chance of successful survival or mission completion. The chance of occurrence is 5% per check; roll for each problem. If HAL is successfully modified (and therefore if Method 2 was used to disconnect him), make a check for each 30 days of the mission. If the attempt to modify HAL fails, check once for each 15 days. If HAL was totally disconnected (Method 1), check for each 5 days.

If no problems occur by random roll, add at least two different problems as the ship continues toward Jupiter, at times of your choice.

Problem: Minor Course Error
Solution: Maintain Earth contact; make corrections as given (success at Operating Computers)

Problem: Air Leak (loss of 10-1000 man-hours worth, depending on its size)
Solution: Repair (standard procedures)

Problem: Equipment Malfunction or Failure
Solution: Repair/replacement. (Note that equipment failure may occur with little or no warning without HAL's higher brain functions.)

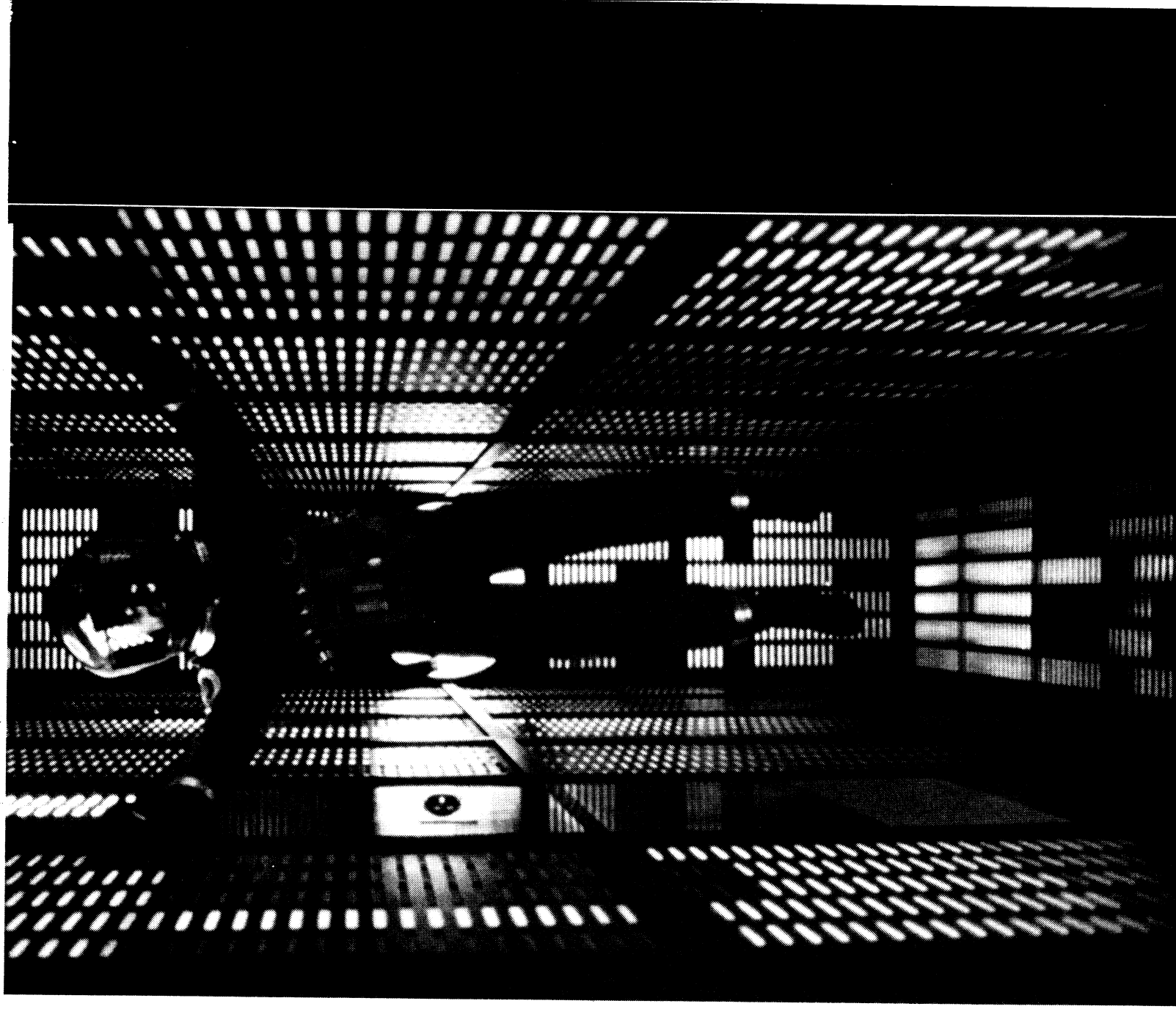
Problem: Food Processor Malfunction (and possible spoilage of 10-1000 man-hours of food and/or water)
Solution: Repair (standard procedure)

Problem: Communications system malfunction
Solution: Find problem, repair/replace unit (standard procedure)

Problem: Computer malfunction
Solution: Success at Repairing Computers

Problem: HAL reactivation. One character decides that survival is impossible without HAL, goes to the HAL Logic and Memory Room, and replaces HAL's memory boards. This restores the dangerous situation prior to HAL's partial disconnection.
Solution: Remove Memory Boards again. (Note that HAL will not reveal his "return," and may take aggressive action, disguised as malfunctions, before he is disconnected again.)

If characters can restore contact with Earth, Mission Control congratulates them on their survival and coping with HAL. They summarize the problem:



"In everything except your primary mission, HAL had the usual reinforced truth programming. We believe that this, along with the instructions to lie, gradually resulted in an incompatable dilemma, and developed—for want of a better description—neurotic symptoms.

"It's not difficult to suppose that these symptoms would center on the communication link with Earth, for he may have blamed us for his imcompatible programming.

"The last straw was the possibility of disconnection. It must have seemed the equivalent of death. At that point, he presumably took whatever actions he thought appropriate to protect himself. I don't think we can blame him too much. We had ordered him to disobey his conscience."

(boxed text continues)

Mission Control wants all surviving characters to continue the mission, at least to Jupiter. Work on Discovery II is proceeding nicely, and it should arrive on schedule.

Mission Control also runs a briefing tape, which was to be played by HAL upon reaching Jupiter. Read the following to the players:

"Good day, gentlemen. I presume that you are nearing your destination, and I hope that you've had a pleasant and uneventful trip.

"Thirteen months before the launch date of your mission—on April 12, 2001—the first evidence of intelligent life outside the Earth was discovered. It was found buried at a depth of 15 meters in the crater Tycho*. No news of this was ever announced, and the event has been kept secret since then."

(*Substitute the name of the crater in which the monolith was found in your game.)

"Soon after it was uncovered, it emitted a powerful blast of radiation in the

(boxed text continues)

radio spectrum. This seems to have been triggered by the lunar sunrise. It proved harmless.

"Perhaps you can imagine our astonishment when we later found that it was aimed precisely at Jupiter. A lot of thought went into the question of whether or not it was sun-triggered, as it seemed illogical to deliberately bury a sun-powered device.

"We finally concluded that the only reason you might bury a sun-powered device would be to keep it inactive until it would be uncovered. What is the purpose? I wish we knew. The object was buried on the Moon about four million years ago, when our ancestors were primitive man-apes. Our best theory is that the object served as an alarm.

"Its exact dimensions are 11 feet 3 inches, by five feet, by 1 foot 3 inches. These numbers are proportionate to the first three numbers, squared—1 to 4 to 9. This seems to exact to be coincidence, but we have no answers.

"The intelligence and scientific communities felt that any public announcement might lead to significant cultural shock. Discussions took place at the highest levels, and it was decided to assume that the intentions of the aliens who buried the device are potentially dangerous. We shall assume this until we have evidence to the contrary; it seems the most prudent course.

"And now, here is a TV monitor tape of the actual signalling event."

You watch the screen. A large black slab, about ten feet high, stands in the middle of a large excavation. Several figures in space suits are gathered around it. From the position of the shadows, sunrise is only a few minutes past. Suddenly, a piercing electronic shriek splits the air; all the figures grab their helmets, and then fumble with their controls. Four more shrieks occur, a few seconds apart; then all is still.

The end of the tape provides a computer program for a major course alteration. The Discovery is to slow down and enter a parking orbit around Jupiter. To do this, the ship must be rotated 180 degrees, so the main engines can be used to decelerate. The computer program can be implemented without HAL's assistance if any character succeeds in Operating Computers.

The moons of Jupiter are in conjunction. This foretells the awakening of the Monolith.

3.10 ARRIVAL

On Day 280 of the mission (13 days behind schedule, because of previously unplanned deceleration), Discovery approaches Jupiter. Several problems should have occurred, and been solved, by this time (as given in 3.9). As the ship nears its destination, read the following text to the players:

As you approach, Jupiter fills the rear screen. Its size is overwhelming, yet you are still thousands of kilometers from it. Some moons are visible, here and there, their shadows casting hurried ghosts on the turbulent surface.

But floating separately, eerily, dead ahead, there is another thing—not a moon at all. As you come ever nearer, you see that it is a monolith—identical to the one found on Earth's moon, but five hundred times larger!

You watch, in awe. The object is slowly revolving, end over end. As it tumbles, you can see light at one end—or is it IN one end? You slowly approach . . . it seems hollow. It seems to be full of stars!

If anyone thinks to take radar readings, it becomes apparent that the monolith is far deeper inside than it seems outside. This monolith is 5,625 feet by 2,500 feet by 625 feet — again the ratios of the squares of the first three numbers, 1 to 4 to 9.

At this point, the characters have the following options:

1. Stay with the ship, enter a parking orbit, and wait for rescue.
2. Fly a pod into the monolith.
3. Enter the monolith without a pod.

Find out what each character is going to do.

Any characters that choose to remain aboard Discovery can make tests and gather information about the monolith. If the communications system is operational, they may relay information to Mission Control. Very little will be learned, however. Eventually, one or more characters will have to enter the hibernaculums.

If any character enters the monolith, continue with Chapter 4.

CHAPTER 4: THROUGH THE STAR GATE

4.1 PASSAGE

Use this section only if one or more characters enter the monolith — the Star Gate.

Read the following to the players:

> There is no sense of motion, but you are falling toward the stars. You seem to be dropping vertically down a huge rectangular shaft. Though your speed seems to be increasing, the far end of the shaft never changes in size, remaining far away.
>
> The star field is expanding, as if rushing toward you at incredible speed. The lights flow to all sides, slowly at first, then speeding past you—or you past them.

If any character is inside a work pod, read the following to the players:

> Space is not the only thing involved here. Something is happening to the clock on your instrument panel.
>
> The seconds are passing with ever-increasing slowness, as if time itself were coming to a stop. At last, the seconds counter stops, frozen between two numbers.

Continue with the following for all players:

> The rectangle ahead is growing lighter. A milky sky is growing brighter around you; the star streaks are fading in its brilliance.
>
> You get the sudden sensation of rising, falling upward at great speed. And then you soar out into the open, in a place and time beyond the experience of man.

For characters in work pods:

> Your clock suddenly resumes normal timekeeping.

4.2 TERMINAL

Continue reading the following text to the players:

> You are above a world of incredible size — much larger than Earth. But there must be no atmosphere; all the surface details are clear, to the remote and flat horizon. The surface is marked in huge patterns, probably miles across, of squares, triangles, polygons. . .and in them, here and there, gaping black shafts, much like the chasm from which you just emerged.
>
> The sky is disturbing. There are no stars, nor even the blackness of space, but only a milky whiteness. But no; there are tiny black dots, here and there, scattered across the sky. They seem oddly familiar—and then you realize that it looks like a photographic negative of the Milky Way.
>
> You are not in space or time as you have known them. You tremble with—fear? Excitement? Both?
>
> The faceted planet slowly rolls by beneath you; you are cruising about ten miles above the surface, with the speed of a rocket. No sign of life or movement appears. Then, ahead—the remains of a vast, alien space vessel, lying in ruins on the planet's surface. It passes in seconds, too quickly to note any details. How many thousands of years has it lain there on this deserted checkerboard? What manner of creatures sailed it between the stars?
>
> A huge golden needle suddenly flashes by. It falls, gently, towards one of the black chasms. . . and disappears into it. You are alone again.
>
> You start to fall toward the surface. Will you suffer a fate like that of the great ship? But another black rectangle yawns below; the empty sky closes above you. Time crawls to a stop once again; the passing rush of stars is almost a reassuring sight. But you know, instinctively, that you are not returning to your ship, or your solar system; perhaps not even your universe.

4.3 CONTACT

Continue reading the following to the players:

> The walls of the shaft are becoming dimly visible once again; the darkness is abruptly cast away, and you are hurtling upward toward a sky ablaze with stars. But no constellations are apparent; the sky is cold and alien.
>
> A huge red sun lies ahead. It seems to be very cool; you can look straight at it without discomfort. Then a ribbon of white light appears along one edge, growing as you watch. It's sunrise—on a sun!
>
> A blazing point of blue-white radiance rises over the edge, moving at incredible speed across the face of its stellar companion. And a tidal wave of fire is drawn up towards it as it passes. You realize that this must be a white dwarf—in a double star system with the red giant.
>
> You fall ever closer to the red giant, moving along a shallow arc almost parallel to its surface, but descending. You should be burned to a crisp—but something is protecting you. Then, in the distance, you hear a faint crackling noise, growing louder.
>
> There is pattern here. Little whirlpools of gas move across the surface of the star. There are occasional clouds. Then, suddenly, you notice a myriad of bright beads of light, moving through the clouds. They are all traveling in the same direction, weaving in and out . . . There are thousands. The more you stare, the more convinced you become that their motion is deliberate, purposeful . . .
>
> As the White Dwarf sets, a twilight falls across the inferno beneath you. And something is happening to space around you.
>
> The world of the red sun seems to ripple, as if seen through running water. Walls like smoked glass are thickening about you, darker and darker; the faint roar subsides. You float in silence, and in night, for minutes. There is a slight bump.
>
> You are at rest.

32

4.4
DESTINATION

The characters have arrived in a place nearly identical to a hotel suite in the United States of America. Give map E, the Hotel Suite Layout, to the players.

All characters who passed through the Star Gate arrive together. They are normal and unharmed, except that all their hair has turned white.

Normal gravity exits; characters must take a few minutes to readjust to it. The air is also Earth-normal.

Any work pods that arrive in the room will disappear the instant that they are not watched. Similarly, if characters remove their space suits, these will also vanish as soon as no one is watching them.

A telephone and a phone book are on a table, but the phone is not connected. The book has a readable cover (it is for Washington, D.C.), but its pages are blank. The material is obviously not paper, but something similar.

The shelves of the bookcase contain books, but they cannot be removed. All drawers are fakes, immobile.

The refrigerator and cupboards contain boxes and cans of food. However, all the food is blue, with the consistency of thick dried pudding. It has an odd but agreeable taste, and is very nourishing.

The faucets dispense pure water. There is nothing else to drink.

The television works, apparently normally. However, all the programs that can be found are from Earth, of the years 1998-2001. If any character checks 6 or more channels, a motion picture is found, and a familiar scene is immediately apparent. It takes place in a hotel suite identical to this one.

The entire hotel suite is a creation of the mind of an alien being, created to reassure, but not deceive, the characters.

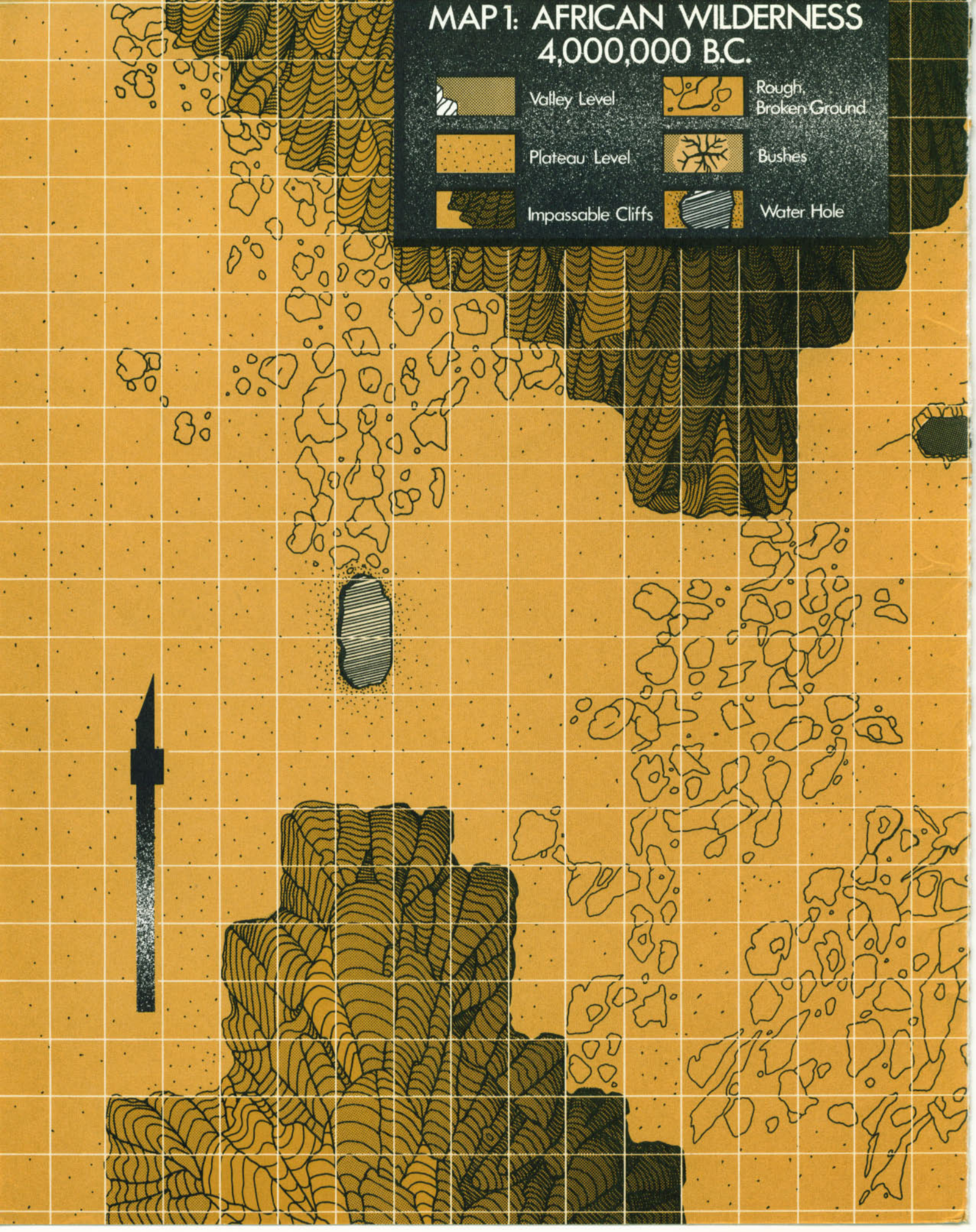
When any character falls asleep (which must occur within 36 hours, all attempts to the contrary notwithstanding due to simple exhaustion), that character has a dream. The character is floating in space, surrounded by stars, and meets an alien being—a flickering flame of light, about 7 feet tall. Somehow, communication is possible. The alien offers the following choices:

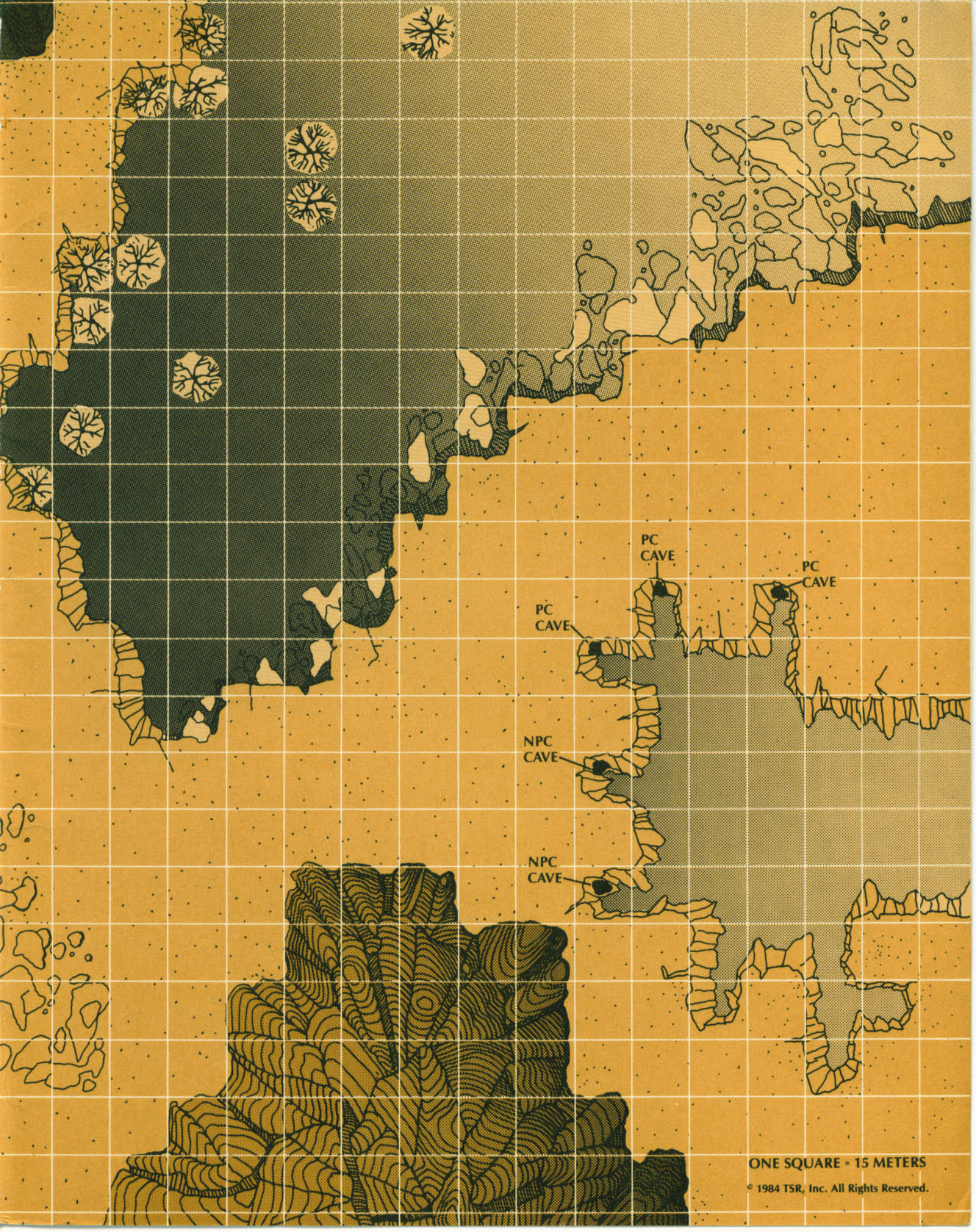
1. The character may return to the Dawn of Man, and help to teach the ape-men the basics of survival.
2. The character may return to Earth's Moon, in the year 2015, to be rescued.
3. The character may immediately return to the Discovery, to await rescue, but with no memory of the passage through the Star Gate.
4. The character may become a higher form of life, an energy being, with no use or concern for material form.
5. The character may go to an alien planet where another race faces a critical juncture, much like the Dawn of Man—the crossroads of knowledge or extinction—and help along the path to survival.

Whatever fate is chosen, this is the end of the adventure for the characters. Read the following final text:

> You have made your choice, for better or worse. The somehow reassuring figure of the alien fades; you are alone with the stars. And then, majestically, silently floating toward you, comes the familiar shape of the Monolith, once again. How obvious—how **necessary**—is that ratio of its sides, 1 to 4 to 9; and how naive to have imagined that the series ended at that point, in only three dimensions!
>
> As you await the final passage, you ponder the wonders of your journey. You think, in this final moment, of the Greek sailor, Odysseus — Ulysses, to the Romans — who, in Homer's epic, set out on a simple journey from the Trojan wars, and there began a journey that lasted a score of years, full of adventure, hardship, and finally, triumph.
>
> And now it comes, and it is time to go; to take the final step on this greatest of all journeys; onward, to complete your Space Odyssey.

The Star Child contemplates the Earth's future.

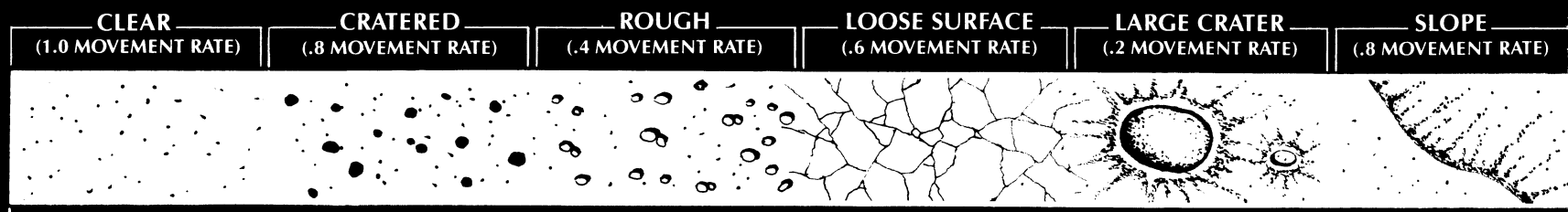

MAP 1: AFRICAN WILDERNESS
4,000,000 B.C.
Valley Level
Rough, Broken Ground
Plateau Level
Bushes
Impassable Cliffs
Water Hole



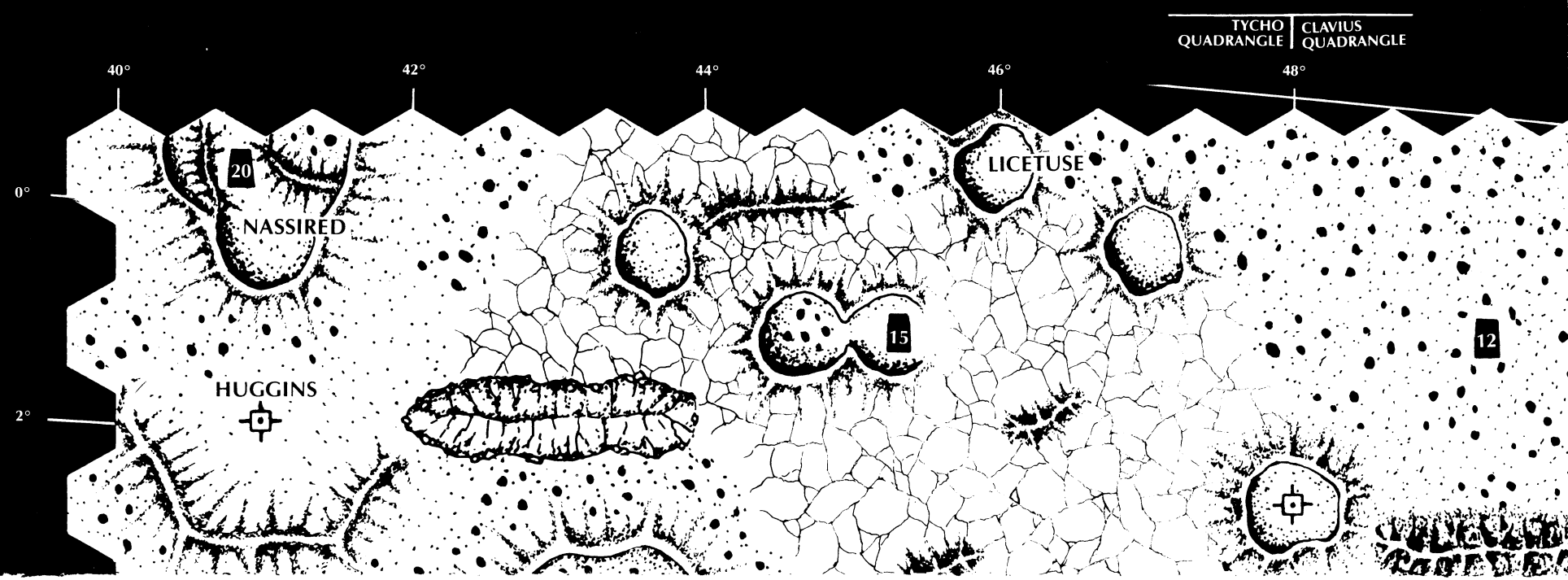
MA

MAGNETIC ANOMA

Prepared by Clavius Bas
from NCA Lunar



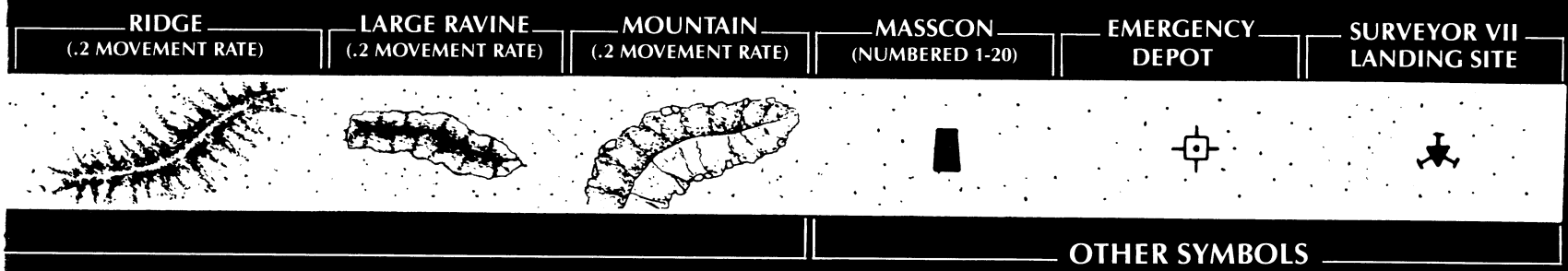
TERRAIN SYMBOLS

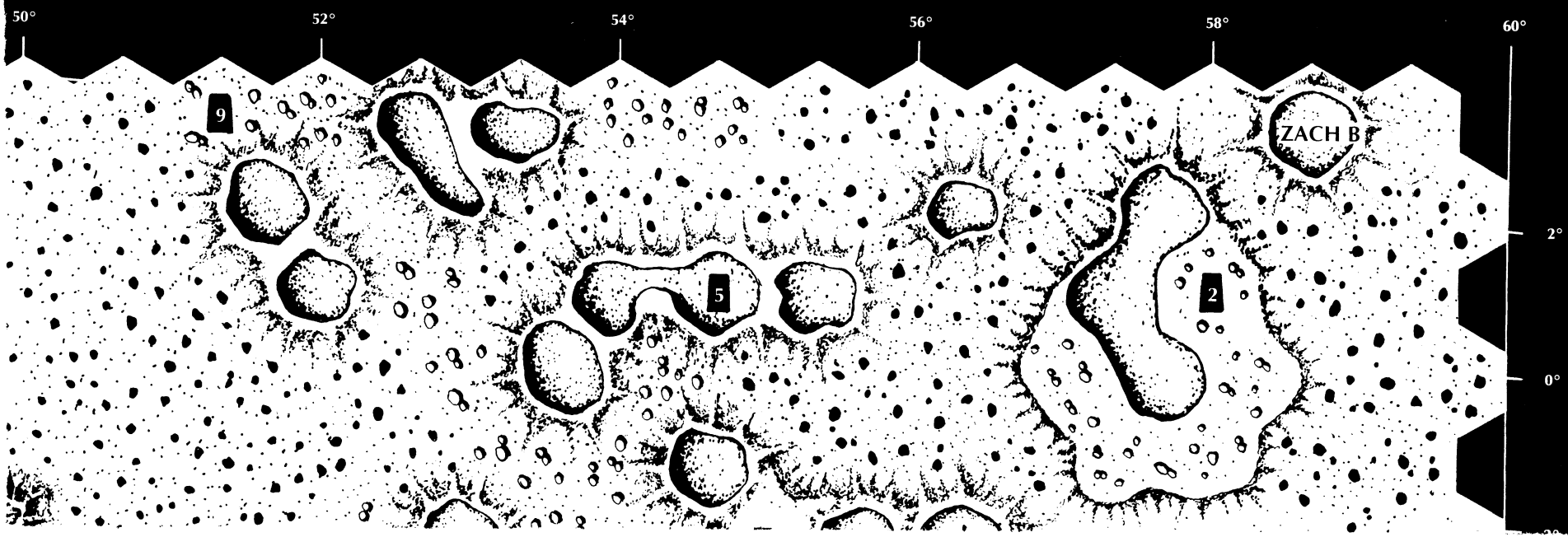


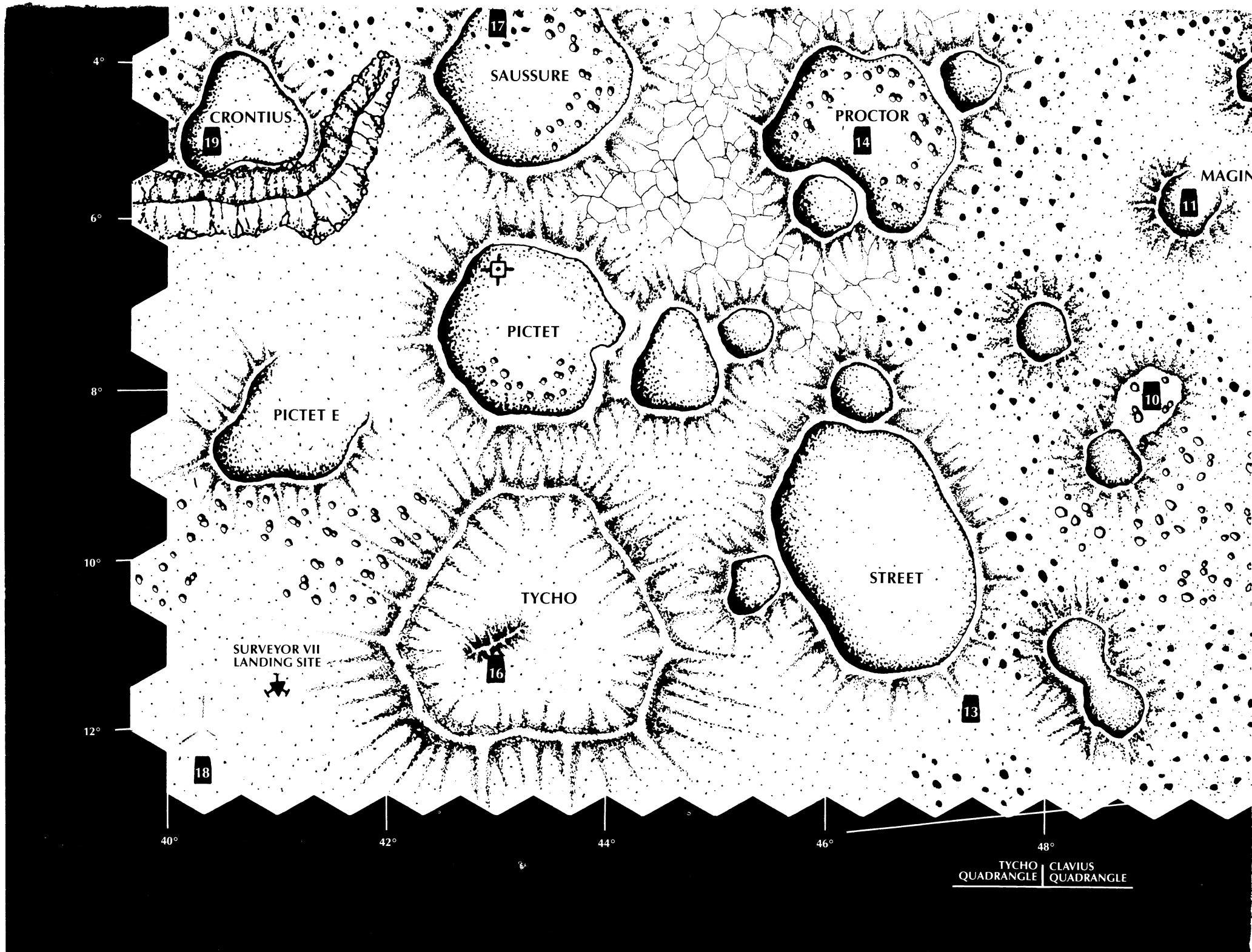
P 2

ALY SEARCH ZONE

e Cartography Division
Map 447-21-TC.






4°
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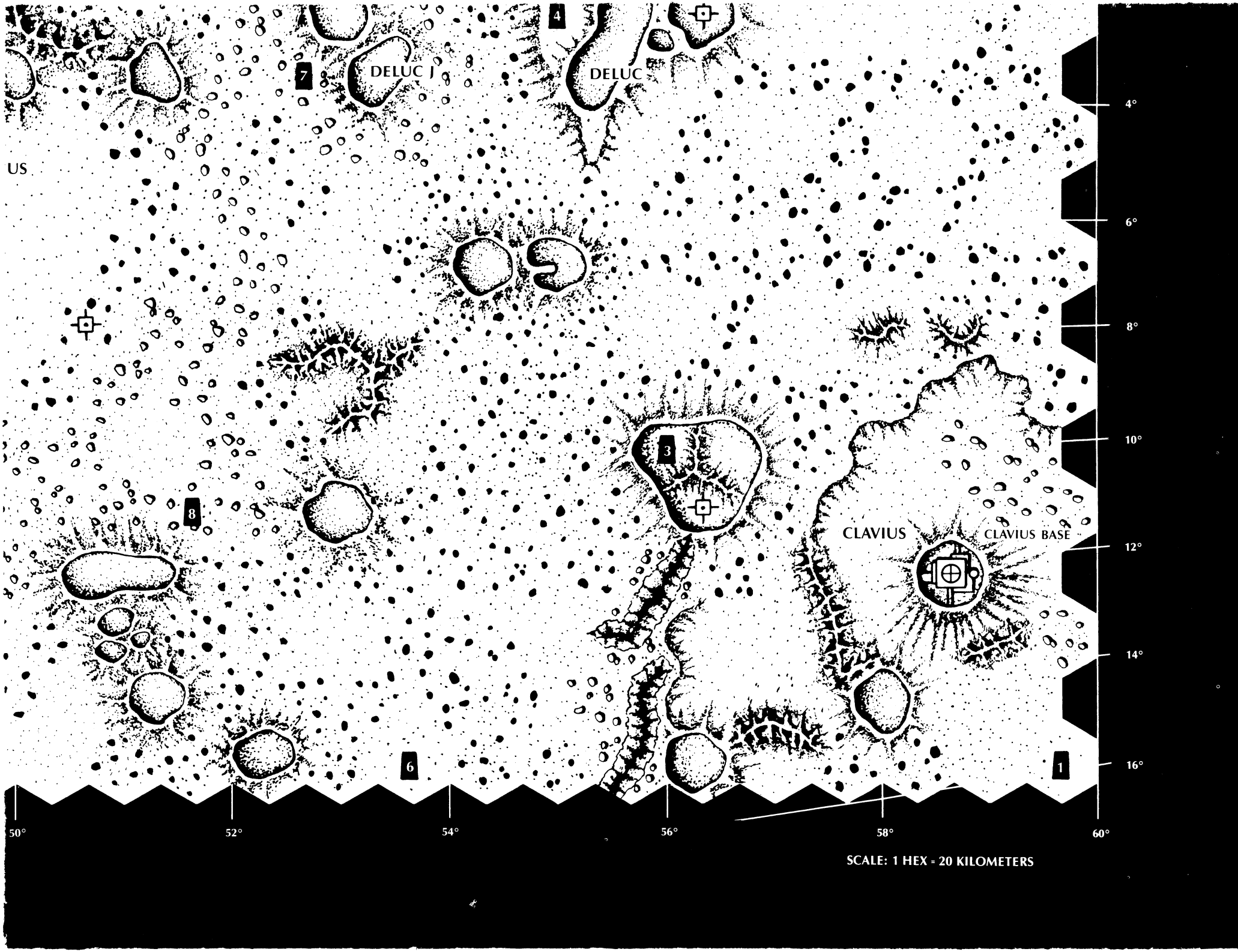
8°
10°
12°
40°
42°
44°
46°
48°
CRONTIUS
19
SAUSSURE
17
PROCTOR
14
MAGIN
11
PICTET
PICTET E
10
STREET
TYCHO
16
SURVEYOR VII
LANDING SITE
13
18
TYCHO QUADRANGLE
CLAVIUS QUADRANGLE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CLAVIUS
CLAVIUS BASE
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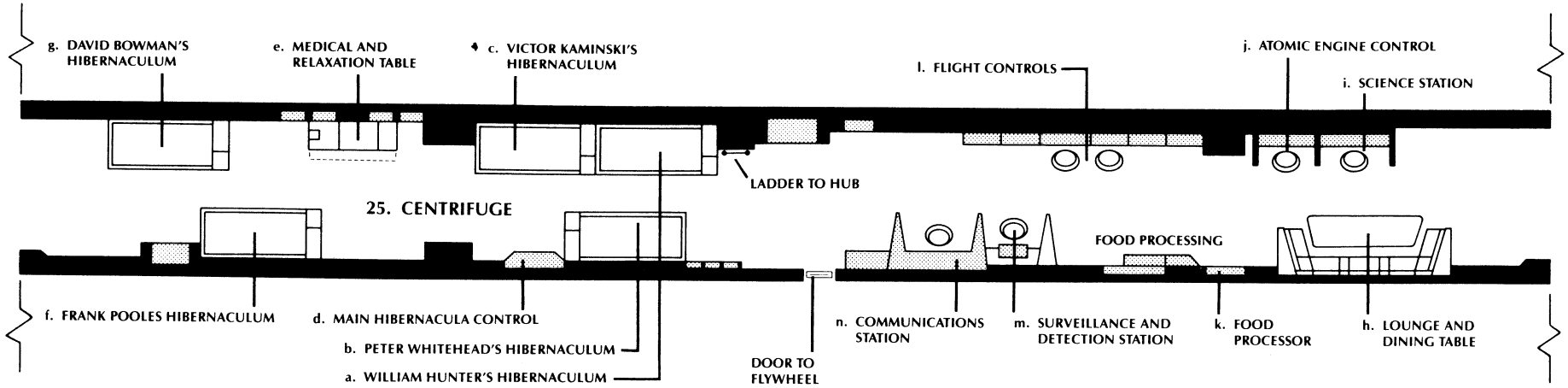
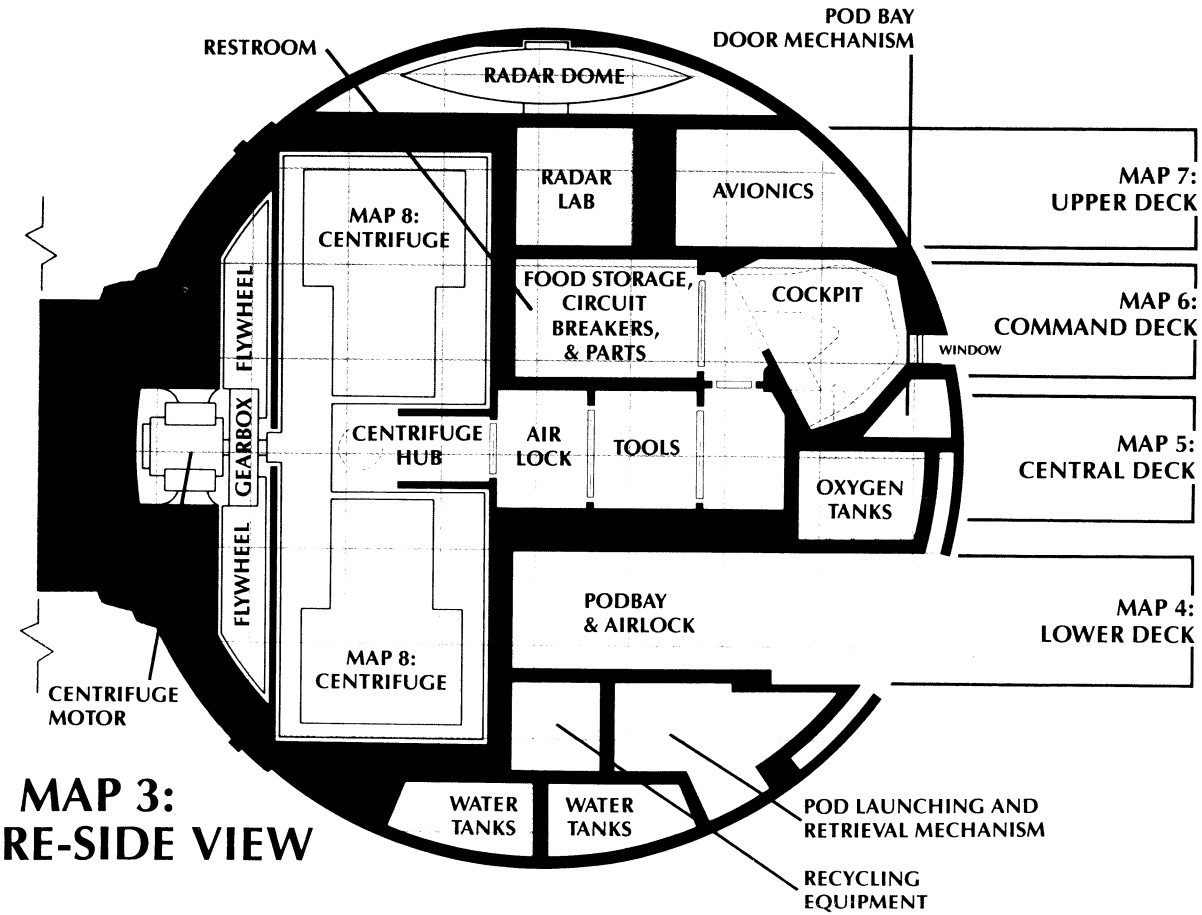
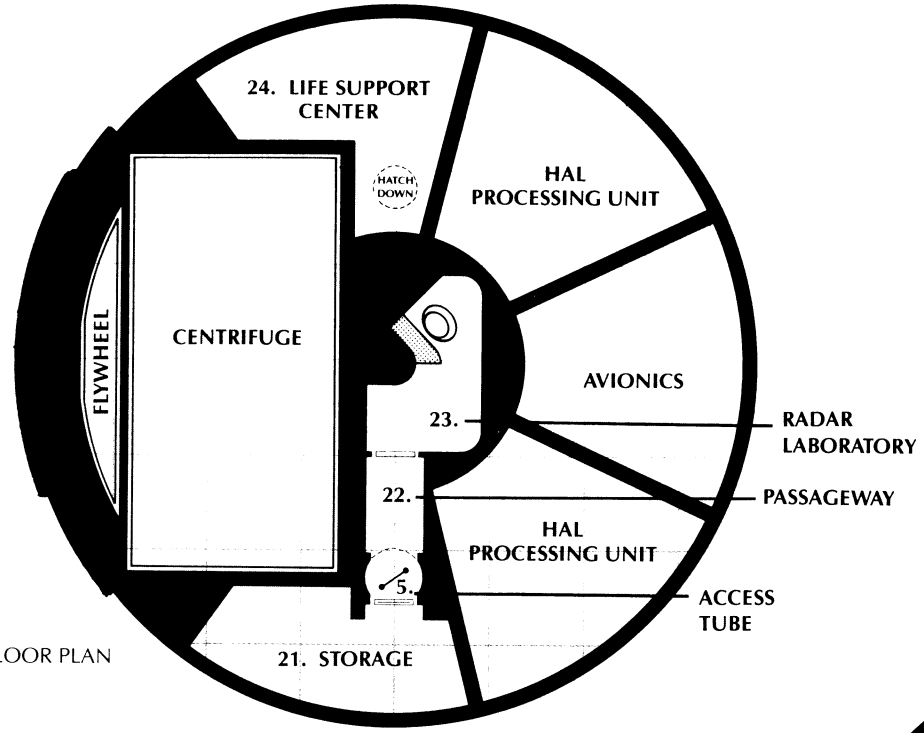


MAP 8: CENTRIFUGE —FLOOR PLAN

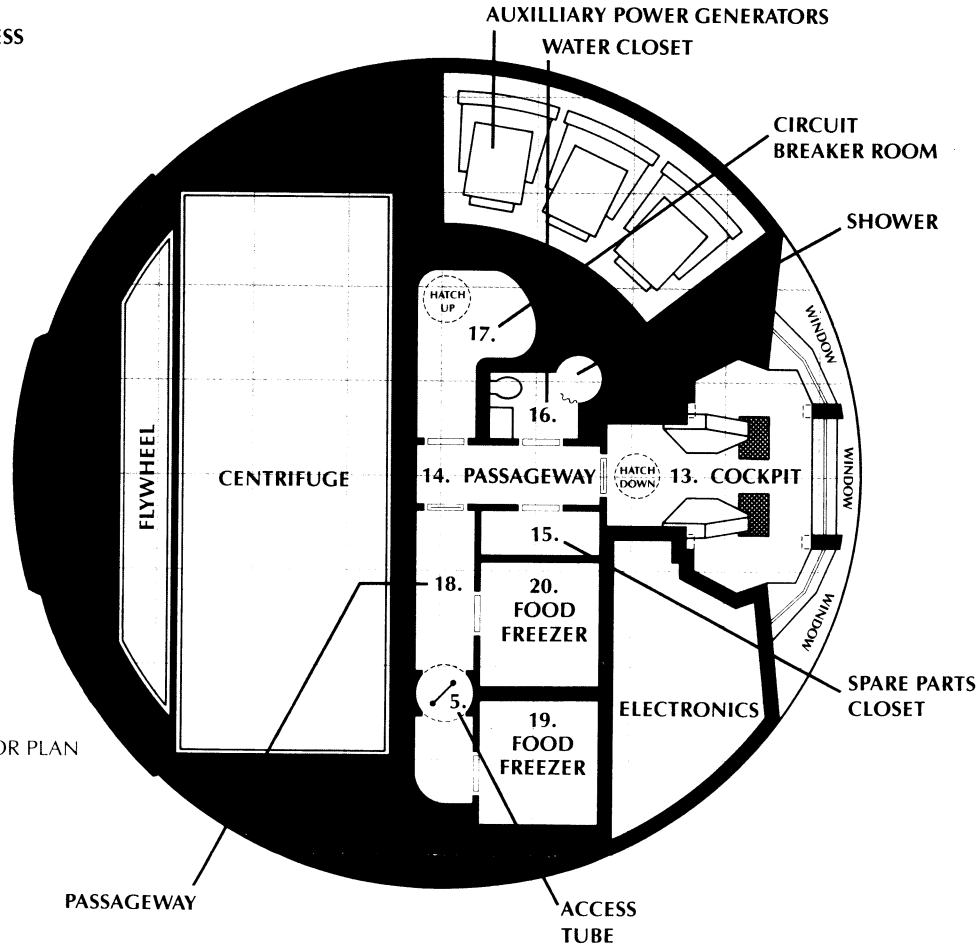


MAP 3: SPHERE-SIDE VIEW

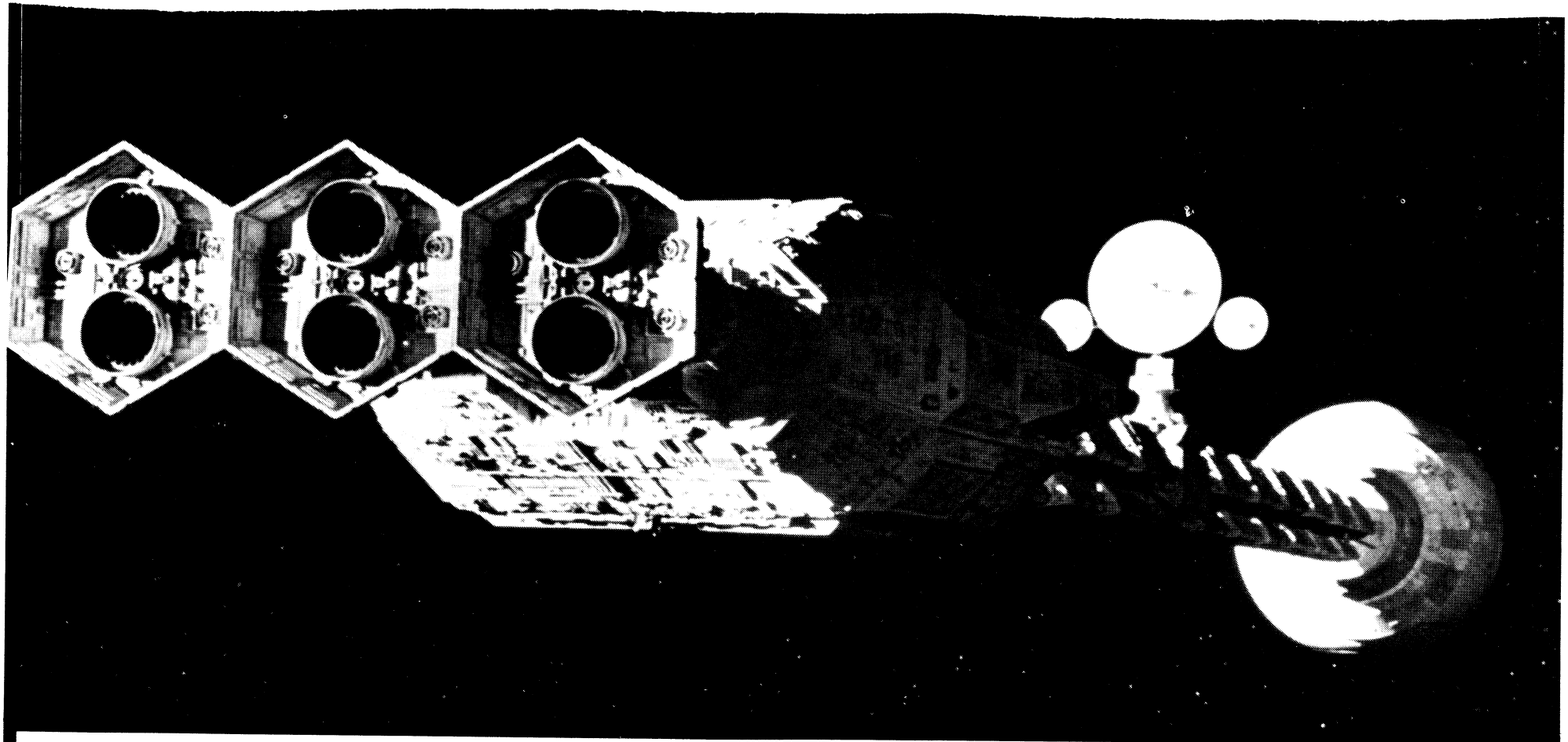
MAP 7: UPPER D



ECK —FLOOR PLAN



MAP 6: COMMAND DECK —FLOOR PLAN



USS DISCOVERY

LIVING QUARTERS | GENERAL PLANS | SHEET 1 OF 1 | SCALE: 1 SQUARE = 2 METERS

ENGINEERS: Frank Mentzer Curtis Smith

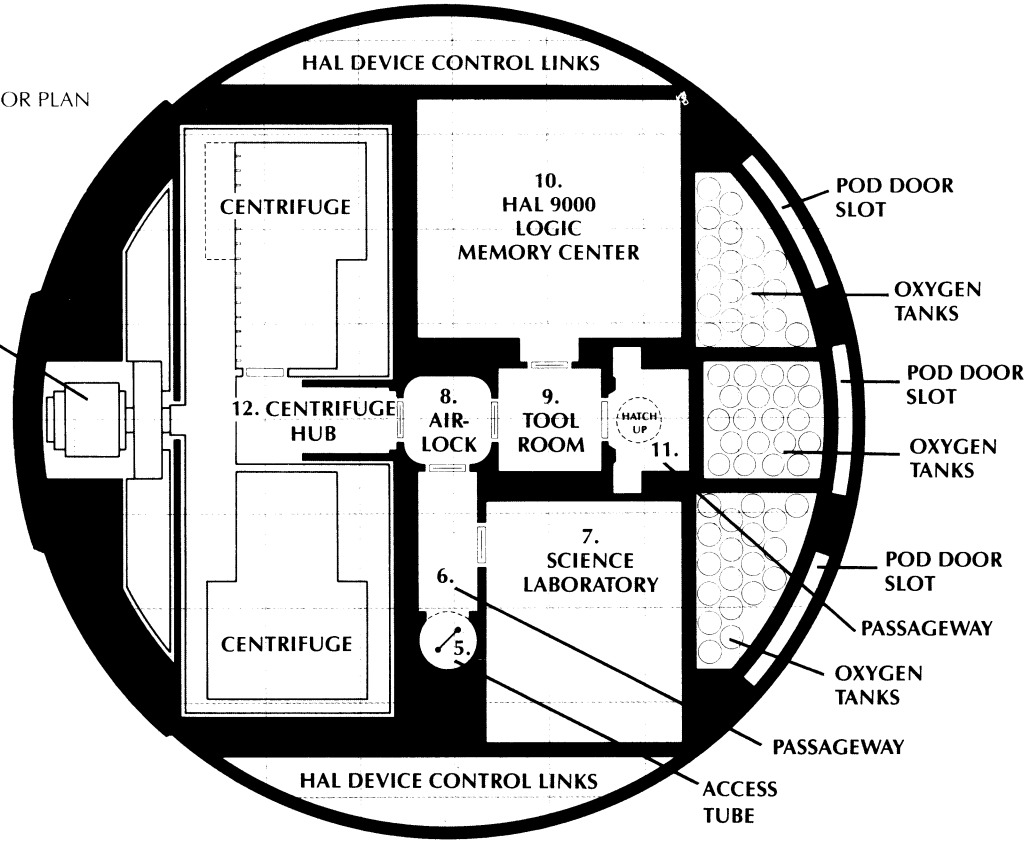
DRAFTSMAN: DIESEL

GRAPHICS: Rich Hagel

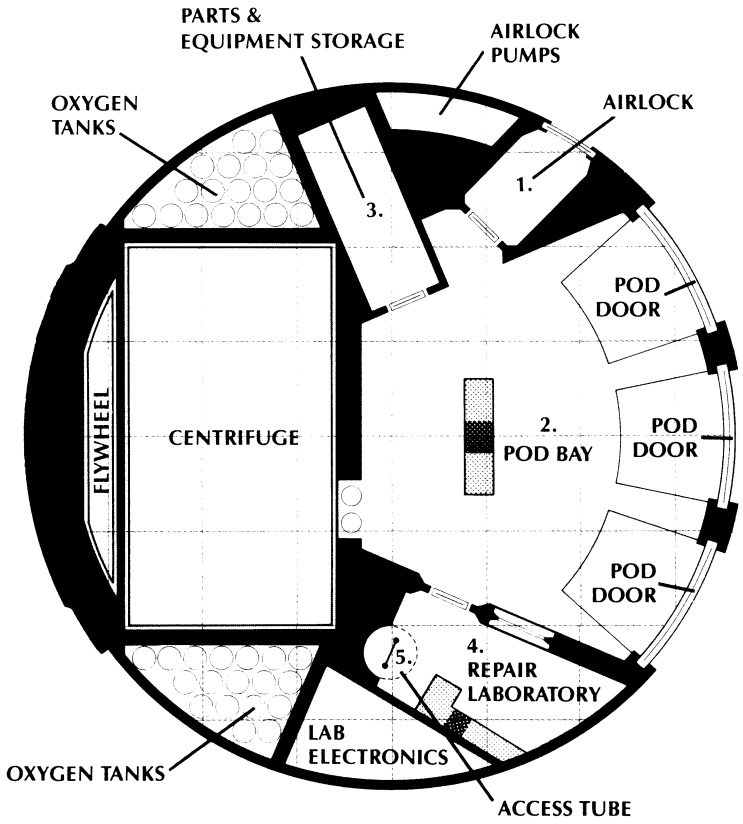
- REGULAR DOOR
- AIRTIGHT DOOR
- LADDER
- HATCH IN FLOOR OR CEILING
- CONTROL CONSOLE
- HAL CONSOLE
- HIBERNACULUM
- CHAIR

7815XXX0701

MAP 5: CENTRAL DECK —FLOOR PLAN



MAP 4: LOWER DECK —FLOOR PLAN



For use with STAR FRONTIERS® rules

2001
a space odyssey

ADVENTURE BY FRANK MENTZER

AFRICAN VELDT, 4,000,000 B.C.:

Small tribes of feeble man-apes struggle to survive on the harsh plains dominated by vicious carnivores. Deep underground, an alien monolith stirs. Slowly, the great black slab rises out of the parched earth. The Dawn of Man has arrived!

CLAVIUS BASE, A.D. 2001:

An unnatural magnetic field erupts near the Moon's largest base. Special teams from every major nation on Earth race to locate the field's source. Beneath the dry lunar surface, a monolith waits for its first glimpse of sunlight in 4,000,000 years!

JUPITER SYSTEM, A.D. 2004:

The USS Discovery hurtles silently through space, carrying its crew farther from Earth than anyone has journeyed before. Ahead lies a monolith over 2,000 meters long — key to the universe and the future!

This module includes a large map sheet, pictures from the movie 2001, and new character skills!

This special STAR FRONTIERS® module requires both ALPHA DAWN and KNIGHT HAWKS box sets.

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