

FIRST REVISED EDITION
PRIME ONE TIMELINE
[GRAHAM/MANDEL]

3

FEDERATION
SPACEFLIGHT
CHRONOLOGY

TERRAN ORIENTATION

TERRANGOLO LANGUAGE EDITION



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SECURITY LEVEL TWO

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This work is dedicated to Geoffery Mandel, who started it for all of us.

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PART THREE

2026-2050: THE ROAD TO THE STARS

OVERVIEW

CHRONOLOGY/TIMELINE

SPACESHIPS

GALILEO CLASS TRANSPORT
ARES IV MARS SURVEY PROBE
COMPANION CLASS ESCORT
COLUMBUS CLASS EXPLORER
DY-400 CLASS
DY-500 CLASS (UPDATED)
DECLARATION CLASS STARLINER
SEARCHER CLASS SCOUT
MAGELLAN CLASS SPACELINER
DY-350 PROTOTYPE
DY-430 CLASS

ALIEN ENCOUNTERS

THE WATCHERS FROM VULCAN
AMBUSH IN THE STARS

TERRAN EXPLORATIONS

ALPHA CENTAURI VII

HISTORICAL ARTICLES

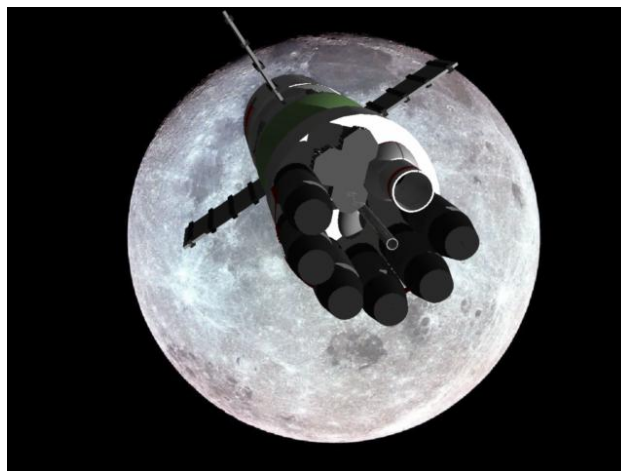
ACID RAIN FALLS ON VENUS
ALIEN SIGNALS DETECTED
SPATIAL ANOMOLY SWALLOWS ARES IV
HOMESTEAD ACT RECALL CRITICIZED
AFP-1 SABOTAGED, PILOT DIES
SPACE PROBE *CHARYBDIS* LOST
GEON HOLES ALLOW RADIO IN SPACE
LUXURY IN THE STARS
FIRST BASE ON VENUS
KHAN THREATENS EARTH AGAIN
LIFE FOUND ON ALPHA CENTAURI
DISCOVERY OF LITHIUM
UESF WINS WAR IN SPACE

SCHEMATICS

ACKNOWLEDGEMENTS



UESF Titan Base (c.2035)



Russian "Red Dawn" orbital combat vehicle (2040)



Centaurean orbital space plane (2048)

2026-2050: The Road to the Stars

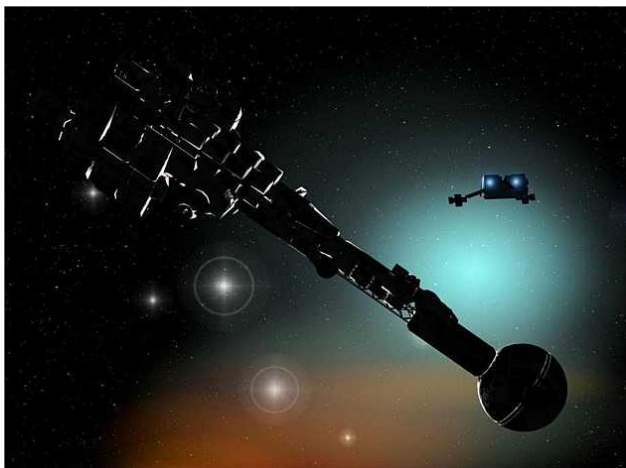


No discussion of this period in the history of Terran spaceflight can avoid the mention of World War III. It rolled across the surface of the planet in waves for some twenty-three years, leaving no country untouched and no family without its war dead. It all but stymied Terran advances in space exploration on the planet as it turned inward and turned its technology against itself. Killer satellites, orbital missile and laser platforms, quick-launch attack craft, sub-orbital assault ships – the list goes on and on. What started out as simple spat over the obsolete concepts of nationalism and territorial rights quickly devolved into a war that pitted alliance against alliance, nation against nation, and brother against brother. As soon as the conflict in one part of the world would die down another would already be flaring. War in one form or another raged nonstop on Terra until the end, when the surviving major nations finally unleashed their nuclear arsenals in the worldwide rain of death that the more noble among mankind had for so long hoped to avoid.

In the space of twenty minutes one-third of Terra's inhabited surface was laid waste, incinerated under a combined ground and orbital bombardment in an horrific maelstrom that was forever after remembered as the Day of Fire. Over 600 million of the planet's humans died in those terrible twenty minutes and almost as many would die during the Post Atomic Horror that followed. Perhaps it was inevitable, given man's nature. Oftentimes he has to destroy in order to create. In this case the old axiom was correct. The Terran culture that finally emerged from the Post Atomic Horror was radically different from the one before. Gone were the nationalism, religious bickering, and petty political spats. Most of the reasons for them simply no longer existed, incinerated along with most of man's past and burned away by the simple need to survive, no matter how or what the cost. The few humans left on Terra who managed to survive the Post Atomic Horror vowed to build a new society, free from its ills of old. In this they were helped by their former space colonies, who had long ago shed such burdens for the promise that the New Frontier offered them. Terra would be rebuilt and many of its cultural and historic icons restored; however, gone forever would be the societal idiosyncrasies that had led to the Day of Fire.

The wartime burden carried by its parent government didn't stop NASA from trying to fulfill its obligations to UESPA under the TAU Program to build a true interstellar spacecraft. This was one of the few spacecraft programs that managed to proceed in spite of the war. NASA had failed once before with *Cyclops*. Their next attempt, *Cerebus*, used the new and still largely experimental "spinner" drive for its main engine. Everything seemed to be going as planned, and the engine appeared to be working according to design, when the ship's telemetry was lost just after it cleared Neptune. A UESF military recon mission eventually found the drifting derelict, its engines shattered and its atmosphere vented into space. All aboard were dead; whatever calamity had

struck them had not left them enough time to get to the escape pods. This second failure might have seemed an ominous sign of which NASA should have taken heed; however, its decades-long reputation for excellence was on the line. "Third time's the charm," its contractors grimly said as the last of the TAU Program ships was built. This was the *Charybdis*, as ill fated as its two predecessors, and it would simply vanish without a trace in 2037. What data was available pointed to a catastrophic failure of its spinner drive, similar to what had happened with the failed fusion drives of the *UES Courageous* back in 2022. The TAU Program would be NASA's last, with all funding being cut for future spacecraft development. The agency itself would be absorbed into the ISA shortly thereafter. In the meantime, though, Utopia Planitia was already succeeding for UESPA where NASA was failing with the first "ringships" ever to enter Terran service.



While most of the humans on Terra were busily trying to exterminate themselves the humans of Terra's space colonies were rapidly leaping ahead on the road to the Sea of Stars. The first major phase of expansion at the Utopia Planitia shipyards at Mars was completed in 2029. While ship classes had already been building at Utopia Planitia before this, the availability of the new, larger facilities saw a rapid boom in the size and number of Terran vessels. Utopia Planitia would not see such a large expansion again in its shipbuilding capacities until the Earth-Kzin Wars (2048-2065). In the meantime, however, it would produce some of the best and most renowned

Terran spacecraft of its time. These included the *Columbus* class explorer, ISA's most famous vessel and the first true starship; the *Companion* class scout, which was the UESF's first true spacegoing ship-of-the-line; and the elegant *Declaration* class starliners, widely regarded as the most beautiful Terran spacecraft of their day.



Certainly the most talked-about effort of Terran colonists during this time (and lied-about, depending on the tale-teller) was the mining of the Sol System's inner asteroid belt. It was the American Wild West all over again, with spaceships and early lasers instead of horses and six-shooters. There were no "space Indians" to contend with (yet); however, there were territorial wars aplenty as miners and homesteaders fought over claims – and not always with words, either. The local UESF garrisons were kept busy breaking up one mining war after another or rescuing swindled homesteaders from the claims of unscrupulous mining companies. Eventually, though, as the region stabilized somewhat and its population boomed, large quantities of nickel and iron were shipped back to Terra and Mars. These would be sent either in raw form via mass driver or in refined form via transport ship. It saw the mining town of Asterpolis grow from a regional space capital to one of the most important colonial settlements in the Sol System. This gave the asteroid miners a newfound place of importance among their peers in the early Terran colonies. Even today the people of Asterpolis take pride in their mining heritage. Daily and weekly tours are conducted of the most important mining sites. The important role that Asterpolis and the asteroid miners played in the Earth-Kzin Wars is not given short shrift, either, with a fully reconstructed

UESF asteroid laser defensive base available for public inspection as part of the tour.



The biggest project by far that UESPA undertook during this time was the terraforming of Venus. Billions of blue-green *cyandium caldarium* algae had been seeded into its atmosphere in late 2025. These “ate” carbon dioxide and produced oxygen in the process. Within two years large quantities of oxygen were detected in the harsh atmosphere of Venus. At the same time its atmosphere began to condense natural water, which rained onto the surface and filled its previously dry canyons and gullies. This in turn lowered the planet’s notoriously high atmospheric pressure. By 2047 enough of a transformation had taken place for the establishment of the first manned base on Venus. The planet still had a long way to go before it could ever be properly colonized; however, these early results were certainly promising.



Such a large expansion of the Terran colonies required an infrastructure to match. Huge space farms were built to grow food under otherwise hostile

conditions. A new generation of space transports were built to supply these rapidly growing populations. Dyson-Yoyodine lost its former monopoly on civilian space travel as better and roomier designs from competing companies gained public acceptance. It still had its military contracts, however, and in these it would continue the historic heritage of the legendary DY-series spacecraft design.

Three events near the end of this era would forever change the destiny of man on the eternal Sea of Stars. The first was the concealed crash of a Vulcan survey ship on Earth in 2045. The second was first contact with the humans of Alpha Centauri in 2048. The third was the attack on the scout ship *Sakharov*, also in 2048, which led directly to the First Earth-Kzin War in 2049-2050.

The Vulcans were the oldest of all cultures currently populating the worlds of the Local Group. Alone of all they had faster-than-light drive, which by default also made them the most powerful. The fact that they chose not to exercise that power spoke much of both their culture and their situation. Vulcan had interstellar colonies, yes, but it did not have an empire and did not want one. Thousands of years ago Surak the Reformer had brought the philosophy of logic to his people, changing them from a warlike to a benevolent race. The more emotional among the Vulcans, refusing to accept Surak’s way, had left long ago, never to return.



The Vulcans had been aware of humanity for centuries, monitoring its steady progress as it strove to set foot on the Sea of Stars. Of all the newly risen cultures in the Local Group that they had surveyed over the years they found humanity the most promising. They seemed to be the living embodiment of their own philosophy of IDIC: infinite diversity in infinite combinations. Mankind had many diverse cultures and even more sub-permutations on those, yet in times of great crisis they almost always banded together for the common good. Most importantly,

though, they had in droves the cultural drive that the Vulcans now lacked. Logic and technical superiority had their down sides as well. Vulcan was in danger of becoming a stagnant culture. Logic dictated that given enough time a new power would arise that would surpass Vulcan dominance in the stars, possibly destroying them in the process. Logic also dictated that Vulcan was better served allied with such a culture than fighting an eventually losing war against it. That, among other things, is why once humanity achieved practical spaceflight they began to watch then quite keenly. The crash of one of their Terran survey ships in 2045, followed by the safe return of its crew by the Terrans themselves, taking care not to reveal the true identity and nature of their “guests,” spoke a lot of these beings of whom the Vulcans were already beginning to hold in some regard. Still, they waited for a more tangible sign that humanity was ready to join the Local Group not only as a friend but also as an equal and ally. They would get that sign within their own lifetimes.

Humanity’s first contact with a non-terrestrial culture turned out, surprisingly, to be an encounter with itself. The inhabitants of Alpha Centauri VII, the first “alien” culture ever encountered by Terrans, were in fact Terrans themselves – Greeks transplanted from the 3rd century BCE by the Preservers and left to develop on their artificially created, Earth-like world. Not surprisingly their civilization developed in parallel to their distant brothers back in the Sol System (an event which would lead Centaurean scientist Zacmar Hodgkins to posit his Law of Parallel Planet Development). Of course, they put their own unique spin on their path to the stars. By 2002 they had mastered the science of interplanetary travel; however, their primary method for such journeys was the solar sail (a technology that the Terrans had largely bypassed). By 2020 it had found a peaceful means of coexisting with its fledgling space colonies via the Alpha Centauri Concordium of Planets, thus sparing the system from events such as the Sol



System’s Martian Rebellion. They were not without their faults, as the failure of their colony on Alpha Centauri IV subsequently showed; however, they were as quick to adapt to a given situation and make the best of it as were their brothers on Terra.

The Centaureans had become aware of life in the Sol System about the same time that the Sol System had become aware of life at Alpha Centauri. Their own interstellar program was already well underway by the time the *UES Icarus* arrived from Terra. They welcomed the ship’s crew with open arms – partly overjoyed at seeing they were dealing with other humans, but also because the Terrans had saved them the trouble and expense of the trip. At least one Centaurean scientist was not pleased by this development, however, and he shared his concerns privately with *Icarus* commander Captain Roger Tauber. As Captain Tauber listened to his translator (a native-born Greek on his own crew) relay the scientist’s description of his new drive system he realized that here was a true genius worth more than a few words of social courtesy. He put him in touch with his ship’s science officer Frank Jocasta, and the two (along with translator in tow) left the reception. Tauber wouldn’t see Jocasta in person again for another week, but when he did, Jocasta would have news that would forever change the future of mankind on the Sea of Stars.

The last culture that needed to be humanity’s first contact with a truly alien species would turn out to be its first. The ferocious, catlike Kzinti were the undisputed masters of one of the greatest interstellar empires at that time in the galaxy. It roughly comprised what is today known as the coreward sectors of the Federation’s Alpha and Beta Quadrants. They had conquered the Tellarites and forever planted nightmare visions of “the Great Claw-Swipe” in their culture. They knew the Andorians and, while failing to conquer them, nevertheless had made their independence a dearly bought victory that required constant vigil. They respected the Klingons and had fought several bloody



wars with them on the far side of their empire. They loathed the Vulcans and feared them, all the while secretly rejoicing that the pacifist ways of the “eaters-of-roots-and-leaves” guaranteed the Kzinti Empire would continue. They were not counting on humanity to enter the picture.

Historians have always debated the initial contact between humanity and the Kzinti in 2048 that brought on the four Earth-Kzin Wars. To some it seems too incredible a set of circumstances to believe. The Terran ship *Sakharov* was nowhere near Kzinti-claimed space; thus logically it should have never encountered a Kzinti patrol cruiser. Supporters of the account will reply that the Kzinti had a long-standing habit of sending ships into unclaimed areas of space in order to find “new food for our dinner table,” as one captured Kzinti captain put it. This was no different and the *Sakharov* just happened to be in the wrong place at the wrong time. The rejoinder to this is that, as Kzinti records have since shown, the Kzinti cruiser was on the run from a Vulcan cruiser whose path it had dared to cross. Such theories intimate the Vulcans may have had a part to play in the *Sakharov* incident, deliberately steering the Kzinti cruiser by its pursuit in such a manner that it *had* to come across the *Sakharov* sooner or later. The Vulcans have always dismissed such theories as emotional speculation and have offered free access to their historical archives to prove their innocence. They also point out, and rightly so, that logically humanity would have run up against the Kzinti sooner or later. The notion persists in certain quarters to this day, though, that there was much among Vulcan activities at the time that was not recorded (or possibly wiped). The Kzinti were the greatest scourge that the Local Group and other systems in the known galaxy had suffered for a thousand years. It would take a more noble culture of equal drive and determination but greater intelligence, ingenuity, and resourcefulness to defeat them. The Kzinti would eventually meet their match in humanity; however that conflict at this point was just beginning. Mankind had four bloody wars to go before the Kzinti would be forever denied their dinner table in the stars.



The Day of Fire claims one of many Terran cities



Velestus, aka Alpha Centauri IV



Martian dust storm



A Kzinti warrior feeds on the remains of Lt. Georgi Radetski, *UES Sakharov* – artist’s drawing from survivor’s account (2048)

MAJOR EVENTS

2026-2047

- Terra's Third World War

2026

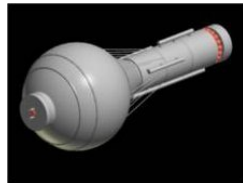
- The city of Asterpolis opens as a central hub for all of the mining and homesteading activity in the Sol System's inner asteroid belt.
- The 15-man Asteroid Rover, built "entirely by the locals," enters service in the asteroid belt.
- The Martian fossil fields at Ma'adim Vallis are discovered.

2027

- The *UES Tiller*, a DY-500 class vessel, stops at the Venus space station to observe the progress of the Venus Terraforming Project.
- The first two-man work pods enter service.
- The Ganymede Research Station begins a new project aimed at unlocking more of the mysteries of Jupiter.

2028

- The *Galileo* class transports enter service.
- Claim jumpers begin the practice of jettisoning the cargo pods of their spaceships onto the settlements of unwary homesteaders to either knock them down or off the homestead and into space.
- The UESF will eventually be forced to clamp down on the practice of asteroid claim jumping by the end of the year before anyone is seriously injured or killed.



2029

- Project SETI's Farside Moonbase division detects the first true intelligent extraterrestrial communications to be received by Terrans listening for them.

2030

- The first successful matter-antimatter engine is tested under laboratory conditions.
- The *Aventeur* class explorers are retired from service.

2031

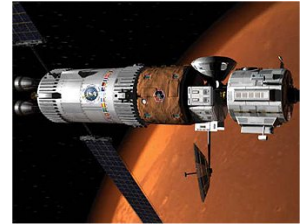
- By this date the Ganymede Research Station has been turned into a permanent facility.
- The UESF begins the construction of permanent military bases on Ganymede, Titan, and Pluto.
- UESPA assists the Asteroid Colonies in moving a number of large asteroids whose orbits cross those of

Earth. These will be parked in safer orbits at the Asteroid Belt and, in time, be settled by homesteaders.

- The Asteroid Rovers are withdrawn from service as replacement vehicles become available.

2032

- The *Ares IV* is close to completing its survey mission of Mars when it is swept out of the Sol System by a spatial anomaly. Its ground survey team is left stranded on the surface with nothing but their base camp supplies. It takes an expedition from the Martian Colonies two weeks to rescue them due to bad weather caused by the passing of the anomaly.
- The *Drake* series of interstellar probes is launched.
- An attempt to rescind the popular Space Homestead Act is defeated. The real reason for the move is to keep more people on Terra in order to fight the war.



2033

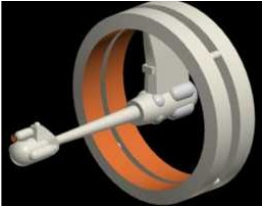
- All major Terran spacefaring nations that do not already have weapons platforms in orbit begin to launch them. Nations that already do augment their older weapons with newer delivery systems. These consist primarily of old-fashioned missile platforms, "rod drop" cylinders, and orbital laser satellites.
- An ISA survey mission makes a 40 million km "close pass" of the surface of Sol.
- The *Companion* class cruiser enters service. It is the UESF's first dedicated warship class.
- NASA's second attempt at building an interplanetary starship for UESPA is foiled when the derelict *Cerebus* is found adrift in the vicinity of Neptune, its engines wrecked and its crew dead.
- The New United Nations gives NASA one more chance to build a working interplanetary starship under the auspices of the TAU Program. Work begins almost immediately on the *Charybdis*.




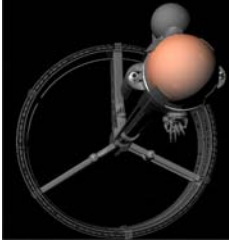
2034

- UESF's Titan Base is completed and begins operations.
- An "accident" with an orbital laser satellite results in the complete destruction of Petrograd.

2035

- AFP-1, Terra's first major attempt at building a faster-than-light spaceship, mysteriously explodes during space trials with all hands lost. Responsibility is claimed by William F. Green, a former ESA army colonel who rose to infamy for his genocidal policies during the war.
- "Colonel" Green seizes control of UESF Aitken Base. He is eventually driven out and escapes back to Earth, but not before launching two thermonuclear missiles at the "impure" peoples of Southeast Asia. They detonate as programmed, killing millions and destroying two major cities. Green and his followers will continue to elude capture for the next year while pursuing their own private race war.
- The first of Utopia Planitia's *Declaration* class starliners, their answer to NASA's TAU Program, completes its field trials for UESPA and officially enters service.  This first ship, the *Declaration*, is a systems demonstrator and will never leave the Sol System. The others will be built to a slightly modified design.


2036

- Colonel Green and his followers are tracked to a base outside Singapore. The UESF orders it destroyed via orbital laser bombardment. Green manages to escape, continuing to plague humanity well into the Post Atomic Horror before he is finally killed.
- "Geon holes" are discovered in the natural fabric of space. These permit faster-than-light communications on a limited basis so long as the points of contact are within range of a geon hole.  This discovery helps solve a major problem with mankind's early space exploration efforts.
- The *Declaration* class starliner *Enterprise* is launched towards Alpha Centauri. It will take 11 years for the ship to get there and it will be passed en route by a newer, faster vessel (*Icarus*). 
- The *Searcher* class scout enters service.
- The *Saratoga* class cargo carrier enters service.

2037

- The DY-400, informally dubbed the *Helsinki* class after its lead ship, enters service at this time.
- The *Searcher* class scout *Sakharov* is but one of many in its class launched on long-term extra solar survey missions.
- The completed *Charybdis* is successfully launched on 23 July 2037. It will be the final starship in NASA's TAU Program and the last Terran vessel ever fitted with "spinner" drive.

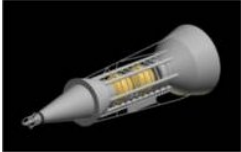
2038

- All telemetry from the *Charybdis* is lost on 7 January. A search and rescue effort is attempted by the closest ship, the *Jacob*, but it finds neither ship nor debris.  The TAU Program is officially abandoned. Its successor, a starship design with more conventional means of propulsion, is already under construction by ESA.
- The updated DY-500 class enters service. Save for their updated engines they are not that different from their predecessors. The three under construction at the time have their new "spinner" drives yanked out at the yard due to the loss of the *Charybdis*. The rest of the class is built with conventional impulse engines.

2039

- Work on UESF's Pluto Base is completed.
- The *Enterprise* detects radio signals coming from the direction of Alpha Centauri.
- The first major industrial plants begin construction at Terra's space colonies. They will specialize in low-gravity refining and manufacturing techniques.

2040

- The *Columbus* class explorer enters service.  Within three years it will replace the *Declaration* class as UESPA's major interplanetary survey vessel of choice.
- UESPA decides to go ahead and complete all but the *UES Ghandi*, the least finished *Declaration* class starliner building, in order to augment the UESF fleet. The *Ghandi* is cannibalized and scrapped in its slip for parts to finish the other vessels in the class.
- The *Magellan* class spaceliners enter service.
- The last surviving member of the original DY-500 *Wheeler* class is updated. All new builds of this group will be of the updated DY-500 design.

2041

- The *Columbus* class starship *Adam & Eve* is launched towards Barnard's Star in a journey that is expected to last nine years.

2042

- The *Columbus* class starship *Icarus* is launched towards Alpha Centauri on 23 June 2042. It will pass the starliner *Enterprise* twice: once on the way and once again on the return trip as the *Enterprise* nears its destination.

2043

- UESPA begins a system-wide recruiting drive for a new series of interstellar colonization flights. The publicity campaign does not go as planned. Harsh criticism is leveled for the "wasted effort" of the *Declaration* class starliners. Nevertheless, UESPA finds plenty of volunteers from the war-ravaged Earth.
- The *Searcher* class starship *Andrei Sakharov* launches from Earth. Its goal is the Procyon system.

2044

- The new Interplanetary Communications Network, based on geon hole technology, now allows near-instantaneous transmissions from anywhere within the Sol System.
- Geon hole transmitters are now installed (and backfitted) onto all UESPA spacecraft. These will permit limited interstellar transmission (on the order of days and months, not months and years) provided the ship is within range of a suitable geon hole.

2045

- A Vulcan scout ship crashes on Terra. This marks humanity's first unofficial contact with the Vulcans.
- The retired DY-106 *Half Moon* is stolen from its storage facility on Luna by persons unknown and successfully escapes the Sol System
- The DY-350 military cruiser program begins development.



2046

- The *Belmont* class interplanetary tugs enter service.
- The Venus Flyer passes acceptance tests and is taken to Venus in order to assist in the Venus Terraforming Project.

2047

- After twenty-two years of hard work the Venus Terraforming Project has progressed to the point

where a manned base can be established at the planet's North Pole.

- Two-man work pods are retired from service.
- The Day of Fire ends World War III. Many, but not all, of Terra's major nation-states perish. Over 600 million people die within twenty minutes. Beginning of the Post Atomic Horror.
(NOTE: Some historians include the Post-Atomic Horror as part of World War III due to Colonel Green's War, pushing the end date out to 2063)

2048

- First contact with the Kzinti in the notorious *Sakharov* Incident. The entire affair is concealed by UESPA in order not to aggravate an already bad situation on Terra. Only Terra's space colonies and a select few on the planet know the real truth. The UESF begins to quietly arm itself for what will prove to be its first interstellar war.
- UESPA plants a cover story that the *Sakharov* was attacked by Khan and new allies from the stars, who are now preparing to make war on the devastated Terra. This is believed by most people despite obvious inconsistencies. The cover story allows UESF forces on Terra to more openly prepare for war with the Kzinti than would have otherwise been the case.
- The *Icarus* arrives at Alpha Centauri. What would have been the positive first contact mankind wanted turns out to be an encounter with itself.
- One of the first visitors with the newly arrived humans from the Sol System is Centaurean scientist Zefram Cochrane. He shares with their scientists his theories on faster-than-light travel. They in turn share with him Alcubierre's "warp drive" theory along with the latest discoveries into making it a reality. Cochrane realizes that he now has the pieces he was missing to complete his own research. For the sake of data sharing with his new Terran friends he refers to his research under the Terran term "warp drive." His first goal will be to build an unmanned demonstration vehicle.
- The DY-430 class enters service.



2049-2050

- The First Earth-Kzin War

2049

- The colony ship *Hawking* launches from Terra.
- The *Adam & Eve* is destroyed by the Kzinti just short of its goal of reaching Barnard's Star.
- The First Battle of Alpha Centauri.

- Alpha Centauri is attacked by a Kzinti battle fleet looking for the homeworld of the *Sakharov*. A combined Terran-Centaurean effort is able to drive them away through the use of portable mass drivers converted into giant “space shotguns.” This marks the first time that the humans of Terra and Alpha Centauri have worked together on a joint enterprise.
- The Terran vessel *Icarus* takes heavy damage during the Battle of Alpha Centauri. It is forced to lay over for several months longer than planned in order to effect repairs.
- The inventiveness and vigorous tenacity of the humans surprises the Kzinti. They had no idea that the “softskins” would prove to be such formidable opponents.
- One small boon gained by the Kzinti during the Battle of Alpha Centauri is that they learn the location of Terra. A second battle fleet already enroute to Alpha Centauri is rerouted towards the Sol System.
- Upon hearing the news of the Kzinti attack the New United Nations declares martial law in those sectors of Terra it still controls. All civilian craft are appropriated by the UESF, armed, and pressed into emergency service. What remains of Terra’s orbital weapons network is redeployed outward. Work begins on converting the Sol System’s interplanetary “beam rider” laser network into a defensive weapon. Mass drivers are deployed across the Sol System at all key points in anticipation of the impending attack.
- Zefram Cochrane’s efforts into turning his warp drive theory into a practical reality are given a sudden boost by both the Terran and Centaurean governments. He doesn’t care about the new Earth-Kzin war; however, he gladly welcomes the new funding and resources without question.
- Sol System activity in the Terran space colonies continues to boom via new industrial methods, boosting the Gross Solar Product yet again.
- The *Monticello* class military transport enters service.



2050

- The Battle of the Sol System.
- A Kzinti battle fleet arrives at the Sol System and begins to systematically attack its outer outposts and UESF bases. Humanity is ready for them, however, having been in preparations for almost a full year. A week of savage fighting will take place throughout the outer Sol System before the Kzinti are stopped at the Asteroid Belt. Most of the Kzinti ships are destroyed by a combination of asteroid based lasers and mass driver fire. A surprising number are also caught when

the Sol System “beam rider” system is activated, catching and destroying them as if they were flies in a web. A fleet of UESF vessels led by a number of armed DY-500s, which had been laying in wait behind the asteroids, destroys most of the survivors. Only a handful of Kzinti ships escape the battle.

- The starliner *Enterprise* finally arrives at Alpha Centauri. By some miracle it has managed to avoid the Kzinti. The common answer given as to how is, “Space is a big place.”
- The Terran gravitic distortion engine, better known as the “Firecracker drive,” is first tested. It proves unworkable and is shelved. A positive side benefit of the program is the development of the inertial dampening system, which will become standard on all Terran (and Federation) vessels once it enters service.
- Zefram Cochrane’s unmanned test drone exceeds the speed of light for 1.004 seconds by use of subspace field technology. His efforts represent mankind’s first working warp drive. For this he will be honored on his homeworld and receive the Nobel Prize on Terra. Cochrane will be the first non-Terran ever to receive the honor. Despite the accolades he knows that the test did not go as planned and major problems still remain with warp drive. More work is needed in order to make it a practical reality.
- Unknown to all concerned, a Vulcan survey ship has quietly observed Cochrane’s first successful warp drive demonstration. They are the only species in the Local Group that currently possess the secret of faster-than-light drive. Logic dictates to the Vulcans that they should initiate contact with humanity once a stable human-built warp drive is achieved.
- Cochrane is offered the chance to go to the Sol System aboard the returning *Icarus* to continue his warp drive research.

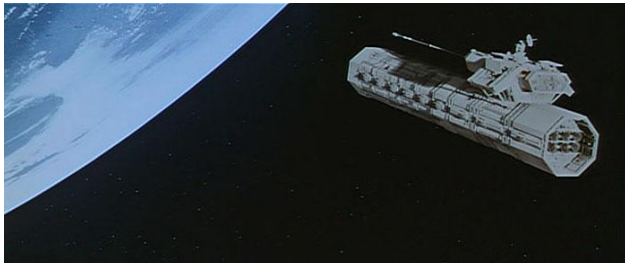


NOTE: It is at this point, per Section 31, that the Prime One and Prime Two timelines begin to significantly diverge based on Cochrane’s choice. His decision to stay on Alpha Centauri will maintain the timestream in the Prime One timeline. His decision to go to Terra will permanently divert the timestream onto the Prime Two timeline.

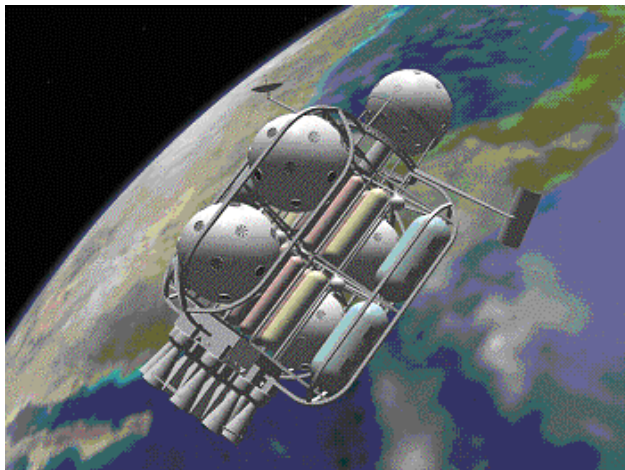


United Earth Space Forces insignia, c. 2030

The two heads represent the Roman god Janus and are symbolic of the UESF motto *semper vigilo* (ever vigilant)



United States (Terran) orbital weapons platform (c.2040)



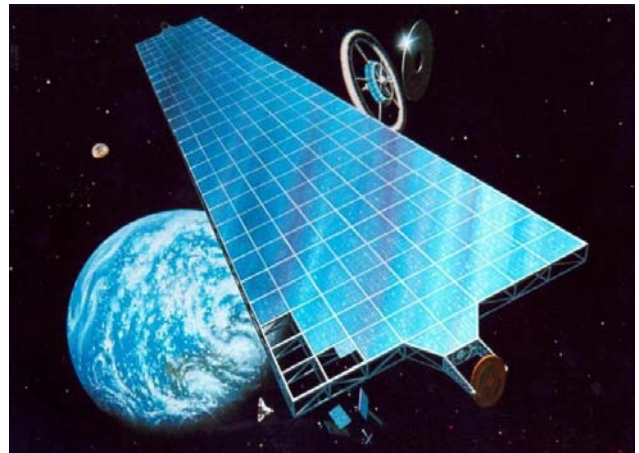
Centaurean orbital transport (2048)



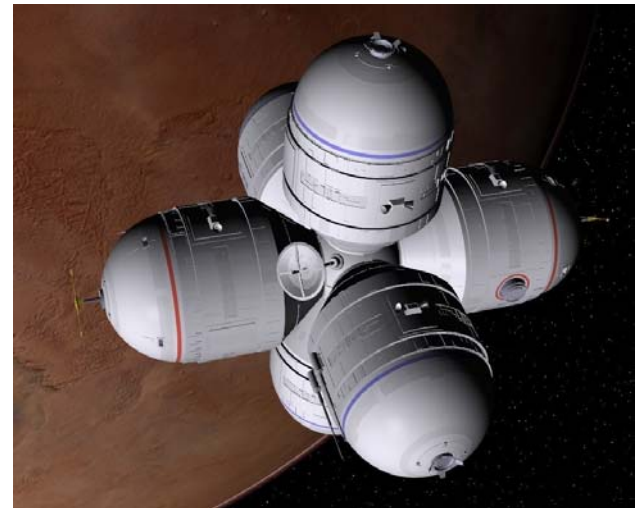
Kzinti battle wreckage re-entry, Alpha Centauri (2049)



Rozhenski-Petrov HSFL (1998)



Terran solar power satellite (c.2030)



UESF monitor outpost (c.2040)

SPACESHIPS

***GALILEO* CLASS TRANSPORT**

SERVICE ENTRY DATE (OLD CALENDAR): 2028

Forever associated with the First Great Space Rush, the *Galileo* class transport was one of the most enduring workhorses of the era. These were ruggedly build and extremely durable. These were the most popular cargo ships in the asteroid belt (for those who could afford them) and also popular with companies that provided transport to the outer planets of the Sol System. They would also prove themselves during the Earth-Kzin Wars as one of the few Terran spacecraft that could survive a pounding from Kzinti drone attacks. The class itself stopped building in 2062; however, most of the survivors were refitted with warp drive and continued to serve well into the 22nd century. A handful of these well-worn veteran transports still exist in private hands today – a testament to the durability of their design.

ORIGINAL SPECIFICATIONS (2028):

Length: 300 m
(with one forward cargo pod, two maximum)
Diameter: 120.7 m
Mass: ... 15,000 DWT empty, up to 48,400 DWT full load
Crew 98
Range: 1 light-year at L.Y.V.
Maximum speed: 0.35c

VISUAL:



GALILEO DESIGN BY RICK STERNBACH

***ARES IV* SURVEY PROBE**

DATE LOST (OLD CALENDAR): 2032

Ares IV was something of a throwback. It had been launched by the ISA at a time when fusion drive was still being supplemented by chemical rockets and solar power. Its main objective was a decade-long mapping and survey mission of the entire surface of Mars, scouting for potential colony sites as well as any other previously undetected phenomena. In this it coordinated its activities with the orbital station *Willy Ley* and the Martian Colonies on the ground. The probe was nearing the end of its mission in 2034 when it and mission commander Lt. John Kelly were literally whisked away by a spatial anomaly (at that time an unknown phenomena). The survey team was left stranded on the surface, which was almost immediately enveloped by a major dust storm due to the passing of the anomaly. It took a ground rescue mission some two weeks to locate and retrieve them. The ultimate fate of the *Ares IV* still remains unknown.

SPECIFICATIONS:

Length: 46 m
Diameter: 12 m
Mass: 92 DWT
Crew 3
Range: interplanetary (Earth-Mars)
Maximum speed: 0.3c

VISUAL:



ARES IV DESIGN BY RICK STERNBACH

COMPANION CLASS CRUISER

SERVICE ENTRY DATE (OLD CALENDAR): 2033

The *Companion* class was the UESF's first major capital ship class. It was quite popular in the years before the First Earth-Kzin War and could often be found escorting military convoys from one end of the Sol System to the other. Its extensive command and control facilities made it an ideal mobile headquarters platform. Many could also be found keeping a watchful eye over the testing of prototype spacecraft employing the latest advances in fusion reactor design and pre-warp engine technology. The weaknesses in their design did not become evident until the First Earth-Kzin War of 2048-2050. They were simply too slow and vulnerable for effective combat against the smaller and more maneuverable Kzinti vessels. Eight were destroyed in the Battle of the Sol System and another five would be lost in subsequent encounters. The class as a whole was retired in 2080. The *UES Fisher*, the last *Companion* class cruiser to be retired from active military service, was later upgraded with warp drive and renovated for use as a diplomatic courier. It is the only vessel of its class that still survives and is preserved at the Utopia Planitia Spaceyards Museum Complex at Mars (Sol IV).



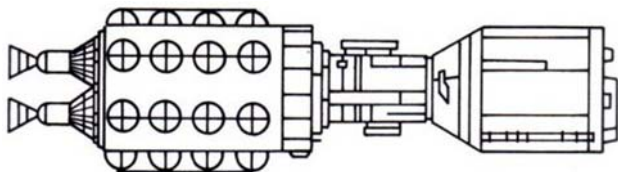
SPECIFICATIONS:

Length: 156 m
Beam: 37.9 m
Draft: 37.9 m
Mass: 65,000 DWT
Crew 20
Range: up to 6 billion km
Cruising speed: 6000 m/sec
Maximum speed: 9500 m/sec
Armament 4 forward lasers
25 fusion missiles

Innovations/Experiments:

- First major Terran warship class
- First Terran spacecraft class fitted with extended sensor and communications suites.

VISUAL:



COMPANION DESIGN BY RICK STERNBACH

COLUMBUS CLASS EXPLORER

SERVICE ENTRY DATE (OLD CALENDAR): 2040

The *Columbus* class represented a tremendous step forward in Terran spacecraft design. This was the first true Terran starship class and the first to utilize spiked-antimatter propulsion as its main drive. This new variation on standard impulse drive allowed these ships to reach speeds up to 0.75c. They would be obsolete within two decades once warp drive technology was perfected.

The *UES Icarus* is remembered as the first Terran vessel to visit another inhabited world (Alpha Centauri VII). It is still preserved today at the Star Fleet Space Flight Museum at Luna. The *UES Adam & Eve* was to have been the first Terran vessel to visit Barnard's Star. It was apparently destroyed by the Kzinti in 2049 just short of its goal. There were no known survivors.

SPECIFICATIONS:

Length: 120 m
Beam: 37.2 m
Draft: 37.2 m
Mass: 86,000 DWT
Crew 40
Range: 8.5 light-years
Maximum speed: 0.75c
Armament 4 forward lasers
25 fusion missiles

Innovations/Experiments:

- First Terran starship to use a spiked-antimatter engine

VISUAL:



COLUMBUS DESIGN BY RICK STERNBACH

DECLARATION CLASS STARLINER

SERVICE ENTRY DATE (OLD CALENDAR): 2035

The name *starliner* is something of a misnomer. It was Utopia Planitia's term for UESPA's first purpose-built starship, designed to explore those star systems nearest to Terra. The only thing that held these elegant ships back was their early ion impulse engines, which confined them to sublight speeds. All were built and dispatched to every single star system within range of Terra known to have habitable planets. All save one (*Enterprise*) would turn back and return to Terra before completing their missions, having been passed enroute by faster ships. Since the *Enterprise* was already over halfway to Alpha Centauri its crew decided to complete its mission anyway. It arrived in the aftermath of the first Kzinti attack on Alpha Centauri, providing much needed relief and supplies to the damaged *UES Icarus*. The starliner *Enterprise* is preserved as a museum ship at the Star Fleet Proxima (Centauri) Shipyards.

SPECIFICATIONS:

Length: 300 m
Beam: 210 m
Draft: 210 m
Mass: 52,700 DWT
Crew 100
Range: 20 years at 0.35c
Maximum speed: 0.75c
Armament 2 laser turrets
50 fusion missiles

Innovations/Experiments:

- First Terran starship design
- First Terran starships to carry on-board small craft

VISUAL:



DECLARATION CLASS STARLINER DESIGN BY RICK STERNBACH
3D MODEL OBTAINED FROM THE TREKBBBS

SEARCHER CLASS SCOUT

SERVICE ENTRY DATE (OLD CALENDAR): 2036

The *Searcher* class was designed as a budget-sized version of the *Declaration* class. They were assigned to travel to the less prestigious (and more numerous) systems on UESPA's exploration list. The ship's small size meant that it carried no auxiliary craft for planetfall. Instead, its forward section was designed to detach from the rest of the ship and act as a planetary lander. It would re-link with the main body of the ship once a planetary survey was completed. This was the only novel item in the design of the *Searcher*. The class itself was unspectacular and would have been forgotten had it not been for the *Sakharov's* terrible first contact experience with the Kzinti. It came out the other side a flying wreck with over half of its crew dead. The class as a whole was retired shortly after the end of the first Earth-Kzin War.

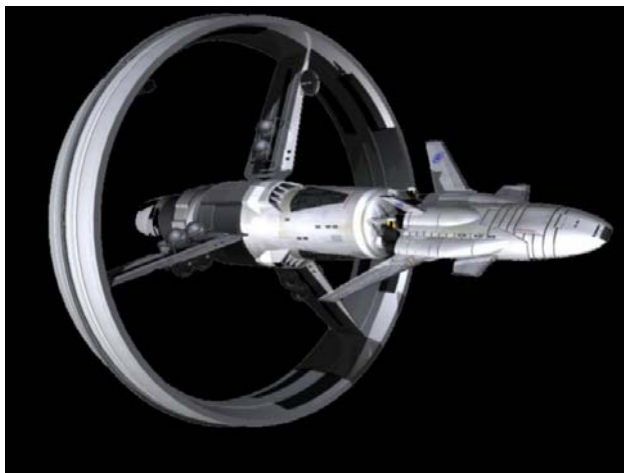
SPECIFICATIONS:

Length: 162 m
Beam: 90.3 m
Draft: 90.3 m
Mass: 21,750 DWT
Crew 45
Range: 20 years at 0.35c
Maximum speed: 0.80c
Armament 2 forward lasers
25 fusion missiles

Innovations/Experiments:

- First Terran vessel with a detachable forward hull
- First Terran vessel type encountered by the Kzinti

VISUAL:



SEARCHER DESIGN BY PAUL LLOYD
(DERIVED FROM HIS KNOWN SPACE ANGEL'S PENCIL CONCEPT MODEL)

DY-400 CLASS TRANSPORT

SERVICE ENTRY DATE (OLD CALENDAR): 2037

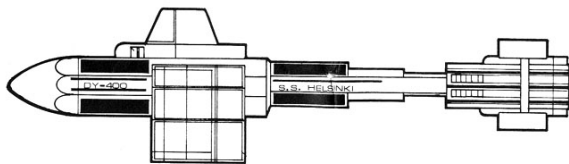
The long-delayed DY-400 class finally entered service in 2038. It had been held up for many years due to the failure of its early prototypes. Its partial reversion to the tried and true DY-100 base design represents a throwback to the tried and true; i.e. "what worked before." It was not perceived as being that much of an improvement over other exiting Dyson-Yoyodine designs, especially with the superior DY-500 upgrade also available. As a result it did not sell very well and had all but disappeared from service by 2045. A retooled version intended for the science and survey role (often referred to as the *Helsinki* class) was reintroduced in 2055. All six of the DY-400s that were eventually enjoyed moderate success during the Second and Third Earth-Kzin Wars as military intelligence gathering vessels.



SPECIFICATIONS:

Length: 100.6 m
 Beam: 36.7 m
 Draft: 29.1 m
 Mass: 24,500 DWT
 Crew 16
 Range: 3 years at 0.35 c
 Maximum speed: 400,000 km/hr

VISUAL:



DY-400 DESIGN BY MICHAEL MORRISETTE
 BASED ON A CONCEPT BY WALTER M. JEFFRIES

UPDATED DY-500 CLASS

SERVICE ENTRY DATE (OLD CALENDAR): 2038

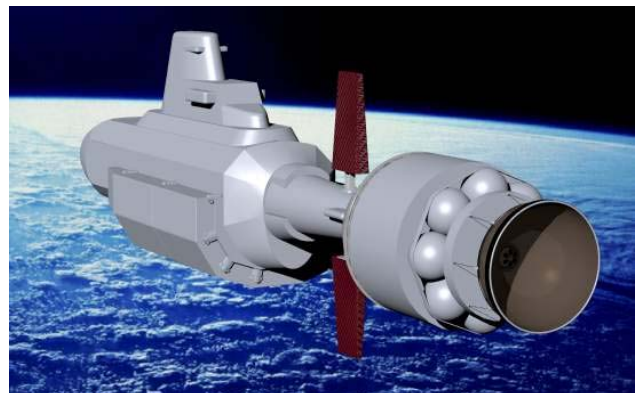
The updated DY-500 class was the way that Dyson-Yoyodyne had meant to build this class back in the 2020s. Economic concerns had dictated otherwise at the time. The resultant delay actually proved to be a blessing in disguise. It gave Dyson-Yoyodyne the chance to incorporate the latest in engine and secondary systems design into the updated DY-500. The class was intended to be the first production Terran spacecraft equipped with "spinner" drive but these were yanked due to the loss of the *Charybdis* from the apparent failure of such an engine. Conventional impulse drive engines were fitted instead. Production was boosted by a UESF contract for an intersystem transport, with one out of every three updated DY-500s going to the UESF. Many were refitted for combat during the Battle of the Sol System in the First Earth-Kzin War and many would also see service during the next two wars. The design would also serve as the basis for the subsequent DY-430 and DY-550 classes.



SPECIFICATIONS:

Length: 107.6 m
 Beam: 32.6 m
 Draft: 32.3 m
 Mass: 22,500 DWT
 Crew 55
 Range: 5 years at 0.35 c
 Maximum speed: 475,000 km/hr

VISUAL:



DY-500 DESIGN BY RICK STERNBACH
 AS ADAPTED AND MODELED BY ROGER SORENSON

MAGELLAN CLASS SPACELINER

SERVICE ENTRY DATE (OLD CALENDAR): 2040

The *Magellan* class comprised the great Terran space passenger liners of their day. In fact the word *spaceliner* was coined to describe them. These plied the Terran spaceways for over three decades, providing luxurious comfort for Sol System tourists. In an age where planetary space travel was measured in terms of days, weeks, and even months these ships were designed with every possible amenity. Their level of excellence became the *de facto standard* by which all subsequent spaceliners were measured and even today's are hard-pressed to equal.

At the time of the Earth-Kzin Wars (2048-2065) many of these were appropriated by the UESF and converted for use as troop transports. One, the *Cortez*, was lost in a convoy ambush during the Second Earth-Kzin War.

Only one was saved from the scrapper's torch. The *Prince of Wales* is preserved today in its original sublight configuration at the Federation Air and Space Museum at Terra (Sol III).

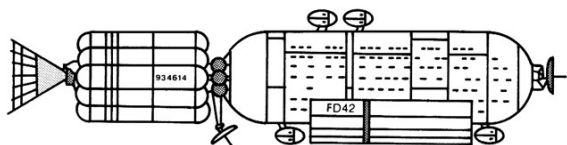
SPECIFICATIONS:

Length: 100 m
Beam: 18.2 m
Draft: 30.9 m
Mass: 20,000 DWT
Crew 30 (+ 260 passengers)
Range: 800 million km
Maximum speed: 50,000 m/sec

Innovations/Experiments:

- First true spaceliner class
- First spacecraft fitted with luxury accommodations and accessories (such as theaters, night clubs, dining rooms, etc.)
- First Terran spacecraft fitted with lifeboat pods

VISUAL:



MAGELLAN DESIGN BY RICK STERNBACH
(AS REDRAWN BY LAWRENCE MILLER)

DY-350 PROTOTYPE

SERVICE ENTRY DATE (OLD CALENDAR): 2049

The DY-350 program was initiated as a means of converting the proven DY-series design into a destroyer-class space warship. At the time it was meant as an escort for the *Companion* class cruiser; however, the outbreak of the First Earth-Kzin War changed that. The unfinished DY-350 prototype was hastily outfitted with weapons, existing DY-series engines, and then thrown into the fray. It subsequently scored the most kills of any single UESF ship in the Battle of the Sol System. Its effectiveness as a combat vessel was thus vindicated. The final DY-350 design (and the subsequent DY-X program) would benefit greatly from the combat data gleaned from this prototype's performance.



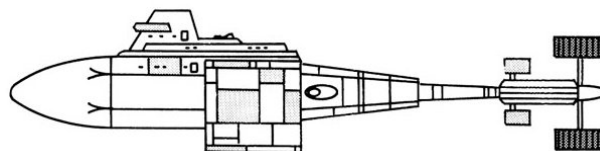
SPECIFICATIONS:

Length: 145 m
Beam: 33 m
Draft: 47 m
Mass: 19,500 DWT
Crew 8
Range: 1.15 billion km
Maximum speed: 140,000 km/hr
Armament 4 forward lasers
25 fusion missiles

Innovations/Experiments:

- First DY-series designed specifically for combat

VISUAL:



DY-350 DESIGN BY WALTER M. JEFFRIES AND RICK STERNBACH
(AS REDRAWN BY LAWRENCE MILLER)

DY-430 CLASS TRANSPORT

SERVICE ENTRY DATE (OLD CALENDAR): 2048

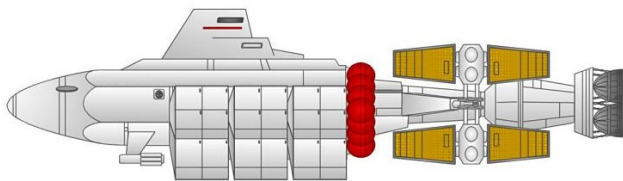
The DY-430 took the proven success of the uprated DY-500 design and enlarged it in anticipation of interstellar voyaging. It was the first Dyson-Yoyodine design to employ a spiked-antimatter engine design, similar to but smaller than that first used in the *Columbus* class explorers. The needs of the Earth-Kzin Wars saw all of these appropriated by the UESF as armed interstellar transports. After the war they were returned to civilian use, where many found a new life as impromptu colony ships. At least one, the *S.S. Urusei Yatsura* (named after a popular fictional character of the day) would make it as far as the Ficus Sector, setting the all-time single-journey range record for a sub-light Dyson-Yoyodine spacecraft.



SPECIFICATIONS:

Length: 130 m
Beam: 53 m
Draft: 45 m
Mass: 38,500 DWT
Crew 20 (+ 100 colonists)
Range: 5 years at 0.35 c
Maximum speed: 475,000 km/hr

VISUAL:



DY-430 DESIGN BY ROGER SORENSON
SCHEMATIC COURTESY OF THE JOURNAL OF APPLIED TREKNOLOGY



"Beam rider" spacecraft test near Jupiter (2032)



Preparing for the Kzinti (2049)



Major General Hans Dietrich
UESF Combined Forces Commander, Battle of the Sol System



A DY-series takes out a Kzinti cruiser (2049)

ALIEN ENCOUNTERS

THE WATCHERS FROM VULCAN

EXCERPTED FROM

SECRET WATCHERS: THE VISITORS FROM VULCAN

BY NORRIS WHITTAKER (TERRA: NEW CHICAGO PRESS, 2200)

Below, the planet was dying. The giant plumes of multi-megaton explosions reached miles into its sky. Giant shockwaves rippled and rolled across its surface, pulverizing everything in their wake. In a few hours it would all be over and the Earth as man knew it would be no more.

High in orbit, safely concealed in the shadow of a long-dead military station, a red arrow-shaped starship surveyed this pitiful scene. Its crew was alien; however, they too were humanoid. They knew what the planet below was going through. They had been watching this world for years, hoping that such a thing would never happen. Now the atomic horror was unfolding before their very eyes.

Skon looked away from the viewport. "How illogical," he said aloud.

"It is their way," T'san, his female companion, replied.

"They would throw away their future to die in this manner," Skon said. His words held a faint tinge of pity mixed with revulsion. He was young for a Vulcan and sometimes still had problems controlling his emotions.

"Not all of them." His companion drew close and carefully clasped her hand in his. "They have already made it to the stars. Humanity will survive to fulfill its promise. This was determined the moment they built their first home away from their homeworld."

"But what of their homeworld?" Skon said. He was looking through the viewport again, watching the plumes fall and the angry clouds begin to roll. "Do they have the strength to rebuild?"

"Did not we, Skon?"

"We did, T'san." He held her hand in his, feeling her warm thoughts of comfort. "One can but hope that they will do the same."

"That is illogical."

"It is human. As you said, it is their way."



Early Vulcan survey cruiser (stock photo)



AMBUSH IN THE STARS: THE FIRST EARTH-KZINTI CONTACT

EXCERPTED FROM *THE RISE AND FALL OF THE KZINTI EMPIRE*
BY MIKLOS SOFIA (AL RIJIL: CENTAUR PRESS, 2175)



Kzinti. The very name strikes fear in the heart of any sane being. The Tellarites will shudder, praying to their gods that their world will never again fall victim to the great Claw-Swipe. The Andorians will instinctively steel themselves, racial memories of hard fought and desperate battles suddenly revived. The Klingons will nod their head in knowing understanding. The Vulcans will say nothing, bowing their heads as if that alone could wipe the thought from their mind. As for the humans of Terra and Alpha Centauri, we who were the last to bear the brunt of Kzinti fury, we who alone of all the beings of the Local Group were willing to do more than just defend ourselves, we who took the fight to the Kzinti and in four bloody wars managed to rip the heart out of their depraved empire once and for all ... we remember. We look to our monuments, our markers of glory, our reminders of our many dead. We look at the thousands of shattered ships and marker stones on a thousand blood-soaked worlds. We look at our prizes of war, study them, learn from them, and yet to this day cannot rid them of the terrible memories and emotions affiliated with them. We must not. We must never forget them no matter how terrible they may be. We must remember so the Kzinti scourge will remain penned and muzzled for the rest of time.

It was in the days immediately following the conclusion of Terra's Third World War that humanity first learned of the Kzinti. The war had not stopped Terra's colonies from continuing their space exploration efforts. My homeworld of Alpha Centauri was about to be contacted by two ships from Terra, the *Icarus* and the *Enterprise*. Other ships were heading outward from the Solar System in all directions, seeing new worlds to colonize and that elusive first contact with a truly alien race that would escape them with my people. That contact would not be long in

coming. Unfortunately it would be far from the pleasant experience for which the humans of Terra had for so long hoped. Its living nightmare would go on to haunt them for years to come.

The *Andrei Sakharov* was a *Searcher* class scout vessel, smaller than the Terran *Declaration* class but of the same general design and purpose. It had been part of a small fleet of Terran ships sent out in the late 2030 and early 2040s to look for other inhabited planets. Travel times were on the magnitude of years back then since warp drive had not yet been invented. The *Sakharov* was typical of a Terran vessel of the day: advanced fusion drive, steering rockets, and limited defensive armament. The weapons were there for other Terrans; humanity as yet had not met any hostile beings in space. That was about to change.

The *Sakharov* was some five years out from Pluto when it encountered what was unmistakably an alien starship. Commander Piotr Velikiy ordered the *Sakharov* to slow and begin broadcasting friendly messages on all channels. He also ordered his crew to refrain from loading and aiming his ship's weapons. He wanted mankind's first true "first contact" experience to be a positive one. His naïve optimism lasted for all of three seconds. Without warning the alien vessel opened fire, damaging the *Sakharov*'s auxiliary engines and bringing the ship to a dead stop. The ship's bridge then took a direct hit, killing Velikiy and all of his command staff. Within minutes the alien ship had pulled alongside the crippled *Sakharov*, grappled it, and then began a boarding action. The dazed and stunned crew of the *Sakharov* had little chance without weapons against the alien invaders, who were twice their size and three times as strong. The few who did manage to get to their guns and tried to resist were killed on the spot. The survivors were then dragged into the ship's cargo hold as prisoners. Only after the fighting stopped and the last of the *Sakharov*'s crew rounded up did their captors reveal themselves. They were felinoid: red-coated tigers walking on two legs with tempers to match. They called themselves the Kzinti, lords of the universe, and demanded to know why the "softskins," as they called the humans, had violated the borders of the mighty Kzinti Empire. When Lieutenant Georgi Radestki, the senior surviving officer, protested, his Kzinti interrogator ripped open his throat in front of everyone. To their horror the other Kzinti who were not guarding them began to feed on the dying man even as he slumped to the deck. They were then threatened with a similar fate unless they answered every question put to them.

It was by the luckiest of chances that three technicians had been at work inside one of the *Sakharov*'s interior access shafts when the Kzinti boarded the ship. They were thus the only three to escape capture, and the many unfamiliar scents aboard the human vessel helped to hide them. Technician First Class Josef Latski, along with Technicians Second Class Marta Donets and Andrei Shkvarzev were the only hope for the doomed crew of the *Sakharov*. They were but three techs against an army of rabid

Kzinti; however, they knew the ship and the Kzinti did not. That fact would prove to be their salvation.

Latski's situation and that of his comrades was precarious at best. It was only a matter of time before their presence was discovered by the Kzinti. To make matters worse, they overheard the Kzinti order a telepath to be brought on board for interrogation. This left them little time to act. The telepath could almost certainly detect their absence in the minds of their captured crewman and possibly pick up their own thoughts as well. They had to act before the telepath could be ferried over.

Fortunately, Technician Shkvarzev had the interesting hobby of big game hunting back home. He had hunted a number of large cats in game preserves and was thus best qualified among them to devise a situation to their dilemma. They were without weapons or access to them, but they might still be able to get to the ship's workshop. Shkvarzev's idea was to quick-build a sonic disruptor tuned to the range of feline hearing. An amplified signal from the disruptor would throw the Kzinti into confusion, provided their hearing was the same as terrestrial cats. Shkvarzev wasn't sure it would work but to Latski it was a good plan as any.

The three made their way back to the workshop as quickly and quietly as they could. Two surprises awaited them. The place was unguarded, being deemed of little worth by the Kzinti. Furthermore, the Kzinti had taken the weapons of the disarmed humans and simply dumped them on the floor of the workshop. There was no way the captured crew of the *Sakharov* could reach the workshop from where they were being held. This fortunate turn of events played right into Latski's hands. He and Donets quickly began arming themselves, as quietly as possible, while Shkvarzev whipped up his homebrew disruptor. Donets and Shkvarzev would rescue the crew while Latski made his way back to the engine room. If their plan failed, well ... he knew what he would do. If the opportunity presented itself to regain control of the ship, however, they would need someone to seize and barricade the engine room until reinforcements arrived. They had no idea if their plan would work and little chance of it succeeding, yet they pressed ahead anyway. Slim hope was better than none at all.

Even as the Kzinti telepath was making his way through the ship's airlock, Donets and Shkvarzev were already hiding in a service crawlways next to the hold where the rest of the crew were being held prisoner. Donets managed to attract the attention of one of the captured crew and held her hands up to her ears. The crewman nodded and the whispered word quickly passed. The service access panel to the compartment was suddenly kicked open. As the startled Kzinti reacted to the noise, the *Sakharov* survivors hit the floor and covered their ears. Shkvarzev powered up his disruptor full force and aimed it

at the Kzinti, even as he and Donets burst inside. What happened next took him by complete surprise.

By the time the sonic blast ended two of the Kzinti were already unconscious on the floor with blood running from their ears. The other three were still staggering but were soon put down with repeated machine gun fire from Donets and Shkvarzev. Donets would later report that she had to empty a full clip and part of another into one of the Kzinti warriors before he finally fell to his knees and bit the deck.

In the meantime Latski had slowly made his way through the ship's interior to the engine core. The *Sakharov* wasn't going anywhere without guidance control; however, that was not Latski's intent. The Kzinti ship had changed its position relative to the *Sakharov* and its crew was in the process of attaching magnetic grapples for towing. By another lucky chance it was sitting directly in the path of the *Sakharov*'s main engine nozzle. They had been cruising on auxiliaries when the Kzinti attacked so perhaps the aliens had not recognized the imminent danger they had put themselves in. Latski wormed his way to the backside of the engine control panel, completely avoiding the Kzinti guards stationed in the area. The shaft grease he had doused himself with back in the workshop was also masking his scent from their noses. Gritting his teeth and praying that Donets and Shkvarzev were succeeding, Latski fired the engine. As the fusion plant's rumble increased dramatically Latski was gratified to see the Kzinti vessel torn away from the *Sakharov* by the blast, subsequently imploding seconds later from a ruptured hull. Almost immediately, as the *Sakharov* rocketed wildly away from the scene, the sounds of gunfire and Kzinti energy weapons could be heard down the corridor. Latski and his comrades had tried to time their actions so that the destruction of the Kzinti vessel and the *Sakharov* crew's counterattack on the Kzinti still remaining would happen at the same time. The two Kzinti guards loped from the engine room at full speed, giving Latski his chance to barricade the engine room and stop the ship without fear of being surprised. He would later rejoin the others and help them in finishing off the last of the Kzinti on board and still clinging to the outside of the ship.

It took two days for the surviving crewmembers of the *Sakharov* to jerry-rig a crude guidance control and turn their crippled ship back towards Earth. Fortunately their distress signal was picked up by a passing colony ship, who relayed it back to the nearest UESF base. Two months after they began the return trip they were intercepted by a UESF fleet under the command of Captain Walter Endemann. The *Sakharov* survivors were taken back to Titan Base for debriefing and recovery. The bodies of the fallen Kzinti warriors and the surviving records from ship's data banks were sent straight to UESPA Headquarters for study. Latski, Donets, and Shkvarzev would later be awarded the Solar Medal of Honor for their daring actions in saving the *Sakharov* and the

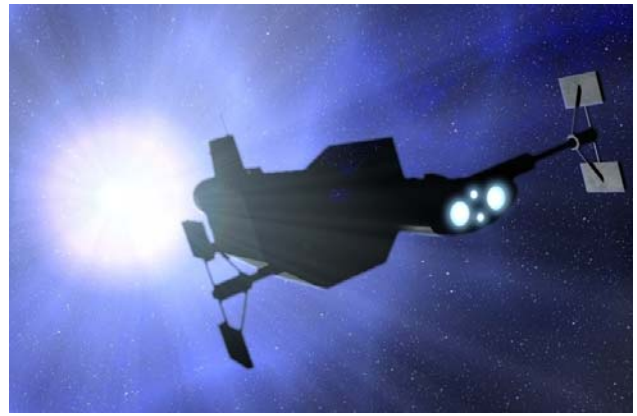
remainder of its crew. They were the first enlisted UESF personnel to ever receive this honor.

Later, at a top secret meeting of UESF Space Command, it was decided that no mention of the event would be made to the Terran public. Most of the planet was still locked in the Post Atomic Horror that followed the end of World War III. The fact that a hostile and belligerent alien species had just been encountered, one that would make war on humanity given the chance, was the last thing that the planet needed to know right now. The UESF decided to begin making secret preparations in case they ever encountered the Kzinti again. From this point forward all Terran vessels would be armed and would proceed with weapons ready when encountering alien life. It was a prudent decision at the time, although this policy would later cause problems when first contact was made with the Andorians. Plans were also approved for defensive measures throughout the Solar System in the event of a Kzinti attack. Program development on new combat spacecraft was accelerated and all existing Terran spacecraft were to be refitted with weaponry whenever possible. A cover story was invented that the *Sakharov* had encountered Khan and his followers on a faraway world and that the deposed tyrant was seeking revenge against those who had exiled him. This was despite the fact that Khan's ship had been heading in a completely different direction when he left Earth and nothing had been heard from him since. The hope was that the memory of the Eugenics Wars coupled with the recent global conflict would cause the fearful to ignore the finer details of the story.

Thus ended humanity's first dreadful encounter with the Kzinti. The worst was yet to come.



Artist's rendering of a Kzinti warrior (c.2050)



A DY-series starship returning to the Sol System



Typical Terran city (c.2035)



Terran geon hole communications relay (c.2040)



The destruction of the *S.S. Messiah*
First Earth-Kzin War (2049)

TERRAN EXPLORATIONS

ALPHA CENTAURI VII

Alpha Centauri VII (*Toliman*) is a paradox. By all the laws of planetary formation it should not exist where it is and in the form by which we know it. The fact that it does as a life-bearing, Terran-like planet is part of its unique heritage as a Preserver seed world.

Alpha Centauri is a trinary star system located approximately 4.3 light-years from Terra. The first two stars, Alpha Centauri A and B, are a binary yellow pair. The third, Proxima Centauri, is a distant red dwarf. The astronomical relationship of these three stars would normally preclude all but rocky and barren worlds forming within a very narrow ecliptic band no greater than 2 AU. The first hint that the system might be inhabited was when radio signals were detected by the approaching starliner *Enterprise* in 2043. When the Terran spaceship *Icarus* arrived in the system in 2048 it found the seventh planet of the system to be almost identical to Terra, complete with oceans and Terran forms of life. This also included an indigenous human population, who as it turned out were not as startled to meet their brothers from the stars as were the crew of the *Icarus*.

Centaurean legends speak of their origins on Earth. They are by all accounts descended from a 3rd century BCE Athenian Greek colony who were transported to their new home by the Preservers. When they arrived they found the planet already terraformed into an Earthlike world. After that the development of human civilization on Alpha Centauri VII roughly paralleled that of Terra. Centaureans and Terrans are both human for all intents and purposes identical as a species and are classified as such. Art is their main export. Their holographic works are particularly prized throughout the Federation. Many Centaureans are involved in the rapidly growing 3D holography industry, where their expertise and artistry are prized. Centaureans are also famed for their mind-altering drugs, said to be among the most potent in the known universe.

Alpha Centauri IV (*Veletus*) is the site of a failed early Centaurian space colony. Its people have reverted to a primitive culture that currently enjoys Prime Directive protection. Alpha Centauri V (*Akarpos*) is also inhabited. The origins of its human culture are unknown. It is less developed due to its harsh conditions and its people tend to shun outsiders.

Visitors to Alpha Centauri VII will want to take heed of one of the traditional custom of its people. Members of both sexes go topless during the planet's summer seasons. This has been known to cause problems with visitors from more prudish cultures or species.



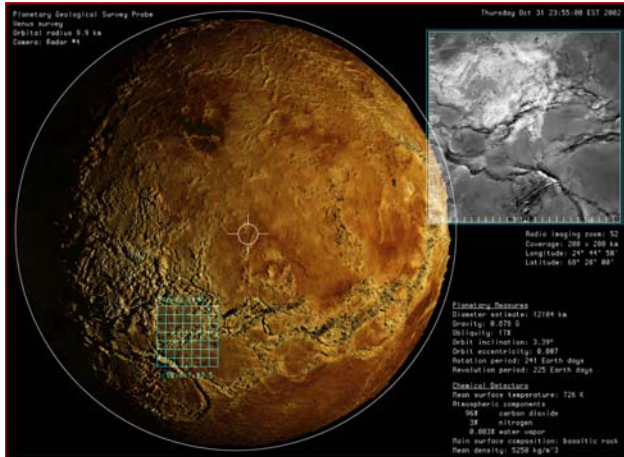
SPECIFICATIONS:

System star:	Alpha Centauri B (<i>Al Rijil Kentarus Beta</i>)
Distance from system star	140 million km
Period of revolution (Terran measure)	27.3 hours
Period of orbit (Terran measure)	342 days
Mass	6.75 x 10 ²⁴ kg
Diameter	13,065 km
Axial inclination	12.5°
Average surface temperature	24° C
Satellites	none
Planetary Richter Scale rating	M
Level of technology	current
Indigenous culture(s)	human (<i>homo terran</i>)
Additional culture(s)	none
Major surface features:	
	The Eternal Ocean
	The Mountains of Olympus
	The Hellas Basin
	The Redlands
Places of note:	
	The city of Athens
	The Centaurean Acropolis
	The University of Alpha Centauri
	The Zefram Cochrane Memorial Museum

HISTORICAL ARTICLES

ACID RAIN FALLS ON VENUS

UNS NEWS WIRE – 5 JANUARY 2027



Venus Terraforming Project data screen stock photo (UNS)

It's raining on Venus. Once a planet whose surface temperature was several hundred degrees, now sheets of rain fall on its barren surface. Over a year ago UESPA probes seeded the atmosphere of Venus with millions of carbon dioxide eating blue-green algae. Every month since they have also routinely fired giant ice asteroids into its thick, humid cloud cover, picked up from passing comets or mined in the Asteroid Belt. Now, for the first time since man began visiting this world, it's raining on Venus. There's just one slight problem, though. All of that water is turning into acid once it hits the surface.

"They didn't expect this," according to *UES Tiller* science officer William Slater. His ship makes routine visits to a space station high in orbit around Venus to monitor the terraforming process. "They thought they would seed the clouds, make it rain, and we'd be walking on Venus within a few decades. They forgot about highly corrosive its surface is. Mix that with all of that water and you've got acid everywhere. It's a real mess down there." According to Dr. Tiller many of the deep basins and craters are now filling up with lakes and seas of pure hydrochloric and sulphuric acid. "What good are sparkling acid oceans going to do to anyone? We might make Venus look like Eden but I doubt very much whether anyone will ever be able to live comfortably there."

In an official press statement UESPA notes that it was aware of the possibility of acid seas back when the Venus Terraforming Project was first put together. It says that its scientists are hard at work solving the problem and that it still expects to have things ready for a manned base by 2035. So far UESPA is refusing to comment more on the problem and has refused any inquiries from reporters.

ALIEN SIGNALS DETECTED

UNS NEWS WIRE – 24 AUGUST 2029



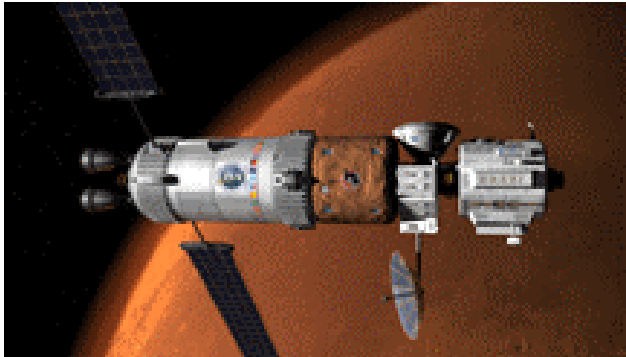
Scientists at the Farside Moonbase on Luna have reported receiving the first true intelligent signals from outer space. SETI's post at the old *Martian Genesis* on Mars and UESF intelligence gathering satellites have confirmed Farside's initial observations. The official press briefing on this discovery was made by Dr. Salvatore Marciano, head communications coordinator for Farside's Project SETI division.

"The signal is at the 21-centimeter frequency of the hydrogen group (OH), an essential component for organic life. The message, which repeats itself every 5.28 Terran days, is a definitely intelligent, modulated transmission – so intelligent, in fact, that even our advanced Moonbase computers have been unable to decode it."

The search for intelligent radio signals from space has been going on ever since Project SETI's beginnings in the 1970s. A SETI division, manned by volunteers and often paid for out of their own pockets, has been established on every Terran space colony beginning with Luna in the 1990s. Today's confirmation is startling proof that man is not alone in the universe. While the alien presence in our own Solar System died out millions of years ago there are others beings out there for us to find. One can only wonder what will happen when mankind's moment of first contact comes upon us.

SPATIAL ANOMALY SWALLOWS *ARES IV*

MBS (MARS BROADCAST SERVICE) NEWSLINE – 19 OCTOBER 2032



Ares IV stock photo (UNS)

MBS Newsline, this is Maxwell Caulfield. “Disaster Over Mars.” The skies of Mars are quiet now, but just a few hours ago they shook with something that swallowed the old *Ares IV* survey probe whole. Scientists are calling it a *spatial anomaly* – a sort of flying gravity well loose in space. It appeared over Mars without warning today and engulfed the *Ares IV* while it conducting a survey of a possible new Martian colony site. The anomaly then disappeared, taking the *Ares IV* and pilot Lt. John Kelly with it. Search teams have been dispatched from the Martian Colonies and the military base at Sidona but they’re having a rough time of it. A huge dust storm kicked up by the anomaly is raging across the surface, reducing visibility to almost nothing and making it almost impossible for anything to move. The fate of the two ground survey team members, Rose Kumagawa and Andrei Novakovich, remains uncertain at this time. No hope remains for rescuing Lt. Kelly, as the anomaly has vanished without a trace. UESPA and the ISA will be making a joint statement concerning this disaster later this evening. A memorial service is being planned for Lt. Kelly. We’ll keep you updated as the situation develops.

SPACE HOMESTEAD ACT RECALL CRITICIZED

UNS NEWS WIRE – 3 MAY 2032



New UN General Assembly Meeting stock photo (UNS)

In today’s special session of the New UN General Assembly, visiting Asterpolis governor Svetlana Krensky called on delegates not to rescind the Space Homestead Act of 2014. Largely credited with the “space boom” of the 2020s, the Act has recently come under heated criticism for excessive benefits to asteroid miners and loopholes allowing large windfall profits from companies investing in asteroid mining.

Governor Kerensky acknowledged that while some of the criticisms were justified, nevertheless the Act on the whole has been good for man. She emphasized that without the raw and refined materials that the asteroid belt supplies Earth it would still be treading down the road of ecological suicide. “Without the intrepid space homesteaders supplying the Earth with needed resources,” Kerensky told the General Assembly, “the deterioration of air, water, and living quality would have inexorably destroyed this world. I cannot believe anyone would wish us to return to that sorry state of affairs.”

Kerensky’s bold call to keep the Act as law was countered by Common Market ambassador Jacques Trudeau of France. “The Act has done more to line the pockets of the rich than it has to benefit Earth,” he said in rebuttal. “We are supplied, yes, but we were already well on the way to saving our world before we began to mine the asteroids. Now greedy multinationals reap huge profits while we on Earth pay premium prices for their services. They would lay claim to the whole of the Solar System, given time, if the Act stays in force, while we go broke here on Earth. The Act is inherently unfair and must be revoked.”

The issue of whether or not to rescind the Space Homestead Act may be a moot point. The Act includes a 50-year sunset clause, meaning that it would cease to be law in 2064. After that spaceholding claims would be processed under existing territorial, personal property, and resource development laws. Be that as it may, humanity is definitely not about to stop going into space any time soon.

AFP-1 SABOTAGED, PILOT DIES

UNS NEWS WIRE – 12 FEBRUARY 2035

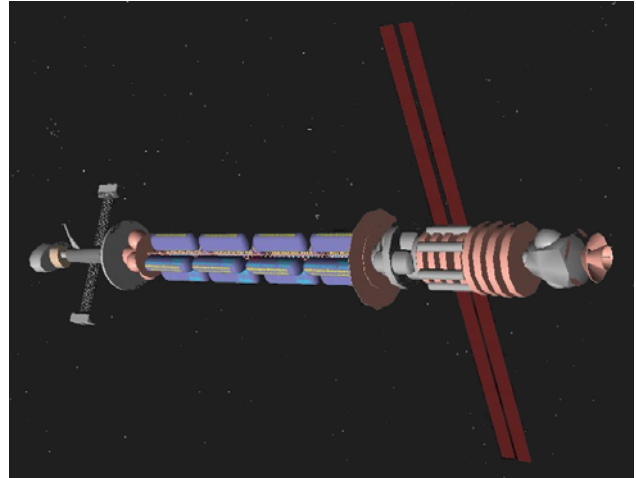


UESF Aitken Base on Luna (stock photo)

Breaking news in the terrorist capture of Aitken Base on Luna. Colonel William F. Green, leader of the Purists of Perfection movement, is claiming responsibility for the destruction of the AFP-1 experimental spacecraft four days ago. The explosion killed AFP-1 pilot Robert Carradine and his crew, and was until now believed to have been caused by a faulty fusion injector system. In his statement Colonel Green claims that the destruction of AFP-1 was the first act in a new campaign by his movement to rid the Solar System of “imperfect members of the human race.” Green is now threatening to launch Aitken Base’s entire nuclear arsenal at Terra unless his demands are met. The New United Nations has thus far refused to negotiate with Green and civilian space spotters have spotted UESF forces staging for what appears to be an attempt to retake the base. More news as it develops.

SPACE PROBE *CHARYBDIS* LOST

CNN HEADLINE NEWS – 7 FEBRUARY 2038



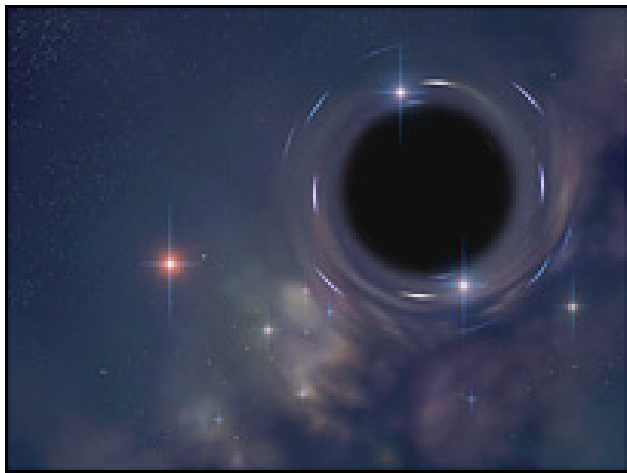
UES *Charybdis* on its trial runs (2037)

Today, in a somber press briefing, NASA spokesman Frank Poole announced that the advanced space probe *Charybdis* has been officially declared as lost. The *Charybdis* was NASA’s third, and some say final, attempt to build a workable interstellar spacecraft for UESPA. NASA’s efforts, which began in 2015, have been fraught with trouble and tragedy. The first, *Cyclops*, mysteriously exploded near Mars after it tried to fire its main engine. The second, *Cerebus*, launched just five years ago, was found adrift near Neptune with its crew dead and its engines wrecked. The *Charybdis* was redesigned during its construction in an effort to stave off the problems that caused the loss of the earlier two ships. That effort seems to have failed once again. The last telemetry track of the ship shows it accelerating out of the Solar System at an impossible rate of speed, much as did the doomed *Courageous* after its engine controls fused in 2022. A memorial service is being planned for the lost five members of the *Charybdis* crew.

The United States Congress is conducting a full investigation into NASA’s advanced spacecraft program in light of this recent disaster. Given NASA’s track record for spectacular (and expensive) failures in recent years, many congressmen are openly discussing the possibility of disbanding the agency and turning its duties over to UESPA. The loss of the *Charybdis* has also cost NASA and its contractors a highly coveted UESPA contract to build mankind’s first true interstellar spaceship. The Utopia Planitia Consortium on Mars is waiting in the wings with its *Declaration* class starliner. Like the *Charybdis* it has already passed its initial acceptance trials. One final endurance run across the Solar System, the same in which the *Charybdis* was lost, is all that remains for the *Declaration* to win the contract. This will end four decades of United States dominance of Earth’s manned space effort, much as NASA pushed ahead of the Russian space program in the late Sixties.

GEON HOLES ALLOW COMMUNICATIONS IN SPACE

UNS NEWS WIRE – 19 MAY 2036



Artist's conception of a geon hole

Geon holes. You can't drop a rock down them, but you *can* talk through them. That's what UESPA scientists are saying today in announcing a discovery that could revolutionize space travel communications.

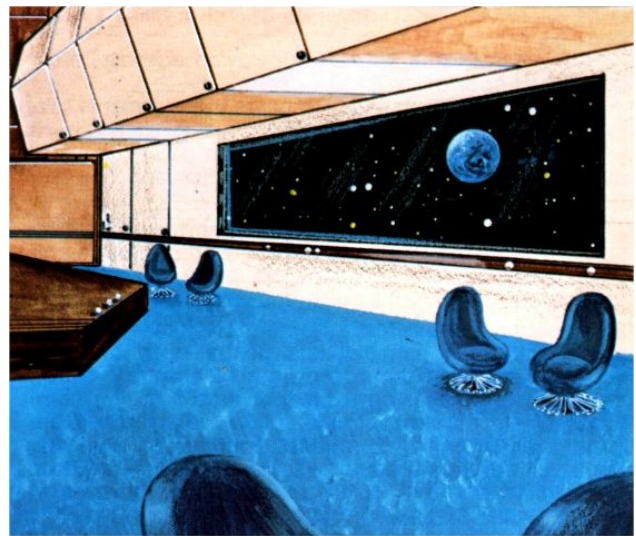
The biggest problem to date in talking with a ship in space is the time factor. The farther away you get, the long it takes for a regular radio signal to reach the ship. Communication times for ships on the edge of the Solar System are in the order of years. This month's discovery by the space probe *Drake* will change all that for the better.

A *geon hole* is a natural pinpoint void in the fabric of space. Inside a geon hole is a realm contrary to the laws of physics – a wormhole – that allows energy to travel faster than the speed of light. When the *Drake* probed the geon hole it found with its sensors, its signals were instantly picked up by the UESF base on Titan at the same time that the probe transmitted them. This would also seem to indicate that most likely location of a geon hole is near large masses with high gravity, such as suns and planets.

"You didn't find them before because you weren't looking for them," said quirky UESPA science advisor Dr. John Smith in a recent interview. "Now that you've found them you can talk in space without having to wait years for an answer. All you have to do is find the right geon hole, and presto! Instant space communications." Dr. Smith remained evasive as to how useful geon holes would eventually prove. "Like I said, you have to find the right hole. Pick the wrong one and you might be talking to a sun on the far side of the galaxy – or worse. It should do, though, once you figure it out, until you come up with a better means of talking in space ... and you will, trust me."

LUXURY IN THE STARS

UNS NEWS WIRE – 20 JUNE 2040



Observation lounge of the *Prince of Wales* (2042)

She's the first in a new type of spaceship some are calling the *space liner*. She's the *SS Prince of Wales*, the first in a new breed of spaceship built and operated by Solar Spaceways for the enjoyment of tourists systemwide.

The *Prince of Wales* is as about as close as you can get to a luxury liner in space. Gone are the submarine-style quarters and general claustrophobia of most spaceships. First class staterooms are about the size of a third class one down below – which is quite roomy for space standards. Instead of bare walls and functional furniture, however, they are decorated like they came straight out of the *Princess Diana*. The massive observation lounge, which is the largest single continuous space outside of a hangar or cargo bay yet put in a spaceship, offers full dining services, wet bar, entertainment, and a spectacular view of space from its oversized viewports. Service is excellent to boot. She's the pride of the newly formed Solar Spaceways, and her captain, Lars Olmstead, had this to say about her:

I myself am a 22-year veteran of the Earth-Luna route, and have, I don't mind saying, dreamed of the day when service between the planets would start. Not only for the adventure of it, but to be able to pilot a ship such as this. It's even hard for me to believe this is an interplanetary spaceship and not some grand hotel. We have two opulent dining rooms, stage and screen theater, null-gravity gymnasium, stellar observatory, even a wine cellar – and more.

There is currently a six-month backlog in ticket requests for cabins aboard the *Prince of Wales*. Others are coming to relieve that burden. The next Solar Spaceways spaceliner, *Prince of Denmark*, is scheduled to launch by the end of year. Three more are under construction.

FIRST BASE ON VENUS

UNIVERSE TODAY MAGAZINE – WEEK OF 11 FEBRUARY 2047

EXTRACT FROM AN ARTICLE BY THOMAS CORBETT



View from Venus North Pole Base (2047)

A dreary, dust-swept sky with ominous clouds thick with rain and a barren, unforgiving landscape. Below a harsh ridge of rocks runs an acid stream, toxic to all forms of life. It sounds like something out of a science fiction novel. In fact, it is the surface of Venus, seen with human eyes for the first time from the heavily shielded viewports of the new Venus North Pole Base. This is the first time in the twenty-year history of UESPA's Venus Terraforming Project that the planet's harsh atmosphere has relented enough to permit the arrival of man. Dr. William Slater, commander of the base, took this reporter on a personal tour of the new facility.

"Ugly, isn't it?" he said, pointing out towards the dreary landscape. "C'mon. Let me show you something." With that he whisked me away to the base hangar, where the acid-pitted hull of the *Venus Flyer* awaited us. Shortly thereafter we were up and away, zooming through the canyons and clouds.

About fifteen minutes away from the base Slater began circling a high plateau and pointed downward. "Hook your vidicam into the *Flyer's* systems and get a look at that," he said with a grin. Instead of the acid pools and lifeless rocks I expected to see, I saw flowers. Strange, alien-looking things, but definitely flowers.

"The acid in the water is low enough there to permit life," Dr. Slater said through my headphones. "There's other patches like this all over the planet. We've even got the beginnings of polar icecaps, just like on Earth and Mars."

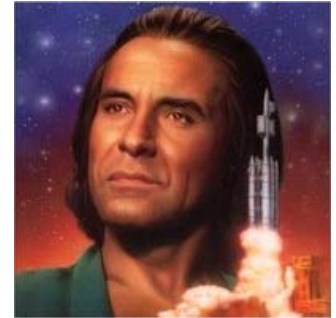
"I never would have believed it myself," Slater said. "I'm an old skeptic. Nevertheless, you can't deny what your eyes can see. Just wait until Stage Two of the Project kicks in later this year. Then I'll *really* have something to show you.

KHAN THREATENS EARTH AGAIN

UNS NEWS WIRE – 15 MARCH 2048

This news account is a fabrication. It is presented in order to illustrate to midshipmen the lengths to which the first Terran government was willing to go in order to hide the existence of the Kzinti from humanity as long as possible.

Today UESPA announced that one of its survey ships has been attacked by an enemy from out of the past. In a press conference at UESPA headquarters a press spokesman named former Southeast Asia dictator Khan Noonien Singh as responsible for an attack on the space scout *Sakharov*. The attack crippled the ship and killed half the crew, with the others barely managing to escape with their lives. UESPA would not comment on how they knew it was Khan nor how he managed to survive his escape into space back in 1996. The only information they would give is that the danger is present and real, with emergency measures being invoked immediately. The New UN has put the Solar Forces on full military alert in anticipation of a possible second attack.



Khan Noonien Singh, born a Sikh prince in India, was perhaps the greatest of the genetically engineered tyrants at the end of the 20th century. At the height of his power he controlled all of the Middle East, Southeast Asia, Australia, and parts of southern China. Even his superior intellect could not save him from the ambitions of his own kind, however. The Eugenics Wars were but a shadow of the World War to come, but in that time some 33 million people were killed and many more left homeless. Khan and his loyal followers managed to escape into space aboard the *Botany Bay*, a stolen sleeper ship, and have not been heard from since until now. If the story is true, then the tyrant who once ruled over most of Earth might be coming back to reclaim his own. Solar Forces Major General Hans Dietrich promises a toasty reception once he arrives.

LIFE FOUND ON ALPHA CENTAURI

MBS NEWSLINE – 2048



Sunset on Alpha Centauri VII (2048)

MBS Newsline, Maxwell Caulfield reporting. We interrupt this program to bring you a special news bulletin from UESPA Headquarters. Intelligent life has been found on Alpha Centauri, discovered by the space probe *Icarus*. Captain Roger Tauber and his crew have apparently found other humans, like us, on the seventh planet in the Alpha Centauri System. Here is Captain Tauber's report to UESPA, relayed via geon link:

The Alpha Centaureans look so much like us that there's got to be a common link somewhere. The only differences I can see are a slightly higher forehead and their little fingers, which they can use as sort of an opposeable thumb.

He reports that the Centaurean language is enough like Greek for the two native Greeks in his crew to act as translators. This is making the first contact process easier for both sides.

UNS Science Advisor Otto Hasselin III had this to say on the discovery by the *Icarus*.

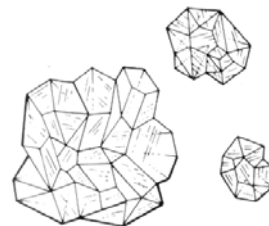
It was inevitable, given all the stars in the cosmos. Sooner or later we were bound to run into intelligent life out there. I for one am glad it turned out to be us this time; that is, the aliens seems to be cousins of humanity. There are far more strange and bizarre things that await us out there, and we may not be so fortunate next time.

We'll keep you updated as the situation develops.

DISCOVERY OF DILITHIUM

UNS NEWS WIRE – 2050

A UESF combat team's chance discovery on the Jovian moon of Almathea has become the newest addition to the periodic table of elements. Dilithium, so named because of its likeness to the crystalline form of



lithium, has been officially named as Element 119 by the International Atomic Commission on Terra. It is both transperiodic and transuranic, like diflourine. It also has the natural ability to focus and store energy, like the recent discovery of rubindium in the asteroid belt. At present rubindium seems to be a better choice as a focusing crystal than dilithium due to the latter's natural scarcity. So far it has been found only on Almathea, whereas rubindium is fairly common in the asteroids and planetary ring systems. Laboratories, museums, and crystal collectors across the Sol System are already lining up to request their own samples of dilithium for their collections. Perhaps someday, when its atomic potential is better understood, some better use might be made for it than as a laser lens or pretty paperweight.

UESF WINS WAR IN SPACE

ABS (AMERICAN BROADCASTING SYSTEM) *EVENING NEWS*
EXCEPRTS FROM THE 11 NOVEMBER 2049 BROADCAST



UESF victory parade, Geneva (2050)

Today in Geneva a ticker tape parade was staged by the UESF to mark its victory over the alien Kzinti in the first interstellar war fought in Earthspace. Public reaction was muted – understandable, given the high casualties sustained during the fight. In six days of pitched battle UESF and civilian space forces under the command of Major General Hans Dietrich defeated the enemy and destroyed its fleet down to the very last ship. Mop-up operations are now underway by General Dietrich's forces hunting for any surviving Kzinti ships that might be hiding somewhere in the Solar System, waiting to strike again or possibly send for reinforcements.

The revelation that the attackers were a hostile alien race and not a newly returned Khan has sent shockwaves throughout the surviving sectors of Earth. Today in the General Assembly there were repeated calls for full disclosure. The Chinese and Japanese delegations demanded that General Dietrich be brought back to Earth and held to account for not revealing the true nature of his enemy. Others, most notably the Russian and European States delegations, are threatening to withdraw from the New UN altogether and face the enemy on their own terms.

The news comes at a time when humanity is still trying to pull itself together after the Day of Fire. Chaos and confusion still reign in many parts of the world, which are gripped by what some are now calling the Post Atomic Horror. These are ruled by petty warlords whose only law is the point of a gun, and the New UN still lacks the resources to purge this scourge once and for all. The new strain of an interstellar war will only worsen the situation. What mankind has just so recently suffered may pale in comparison to the taste of Armageddon that our space colonies have just been forced to swallow. There is no knowing what weapons the Kzinti might have brought to bear on Earth had they reached our world. Were it not for their valor and that

of the UESF this planet would now be firmly under their blood-soaked claws.

Terra's space colonies have remained silent on the question of the Kzinti. Most are still reeling from the effects of the war and reports from the colonies are still coming in. Asterpolis bore the brunt of the war and was heavily damaged, with 324 dead and over 1600 wounded. Many outlying homesteads in the asteroid belt were completely destroyed along with their owners. The UESPA Beam Rider Network is a total loss, burned out in its use to stop the Kzinti marauders. All contact has been lost with the UESF base on Pluto and it is feared that all of its personnel are dead. Three of the seven UESF Mars Monitor stations have been lost with all crews, as well as all but five of the Jupiter and Saturn Monitors. UESPA's Ganymede Research Station is a total loss with all 116 personnel dead. UESF Titan Base reports 39 dead and 267 wounded. And that is all we know for now. No other reports from any other stations or outposts have yet come in.



As of right now some 37 UESF and other Earth ships float in Solar System space with dead crews, wrecked in the battle or so crippled in the fight that they could no longer support life. An almost equal number drift stranded in space, their engines shattered or their control circuits shot up beyond use, patiently awaiting rescue while their life support systems slowly run down. Twice as many more are badly damaged, filling Utopia Planitia and Luna's shipyards to overflowing. Among the hardest losses to bear among these ships was the *UES Columbus*, the last surviving ship of its class in Earthspace, which was destroyed by massed Kzinti fire in the first 15 minutes of the war. UESF losses were particularly heavy, with eight of its new cruisers and fourteen auxiliary vessels completely destroyed with the total loss of all 600 crewmen aboard.

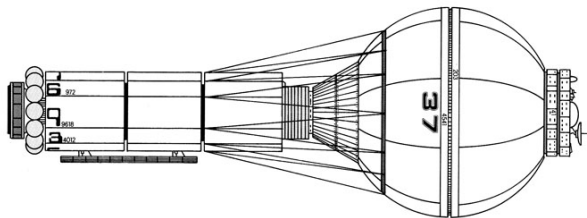
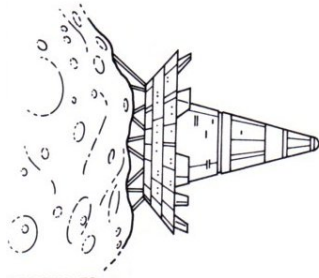
General Dietrich was rather blunt about the staggering casualty figures. "This is a war, not a videogame," he said in a recent press conference. "There are few chances for survival in a real space battle. Either you live or you die. It's that simple." Unfortunately, General Dietrich was right.

SCHEMATICS

VOLUME 03 (NOT TO SCALE)

ASTEROID MOVER (2026)

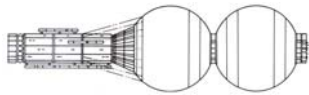
Length: 70 m
 Mass: 840 DWT
 Armament: none
 Drive: chemical/fission
 Range: interplanetary
 Crew: 15



GALILEO CLASS TRANSPORT (2028)

Length: 300 m
 Mass: @50,000 DWT
 (full load)
 Armament: none

Drive: fusion
 Range: interplanetary
 Crew: 98



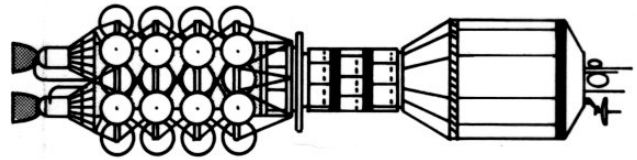
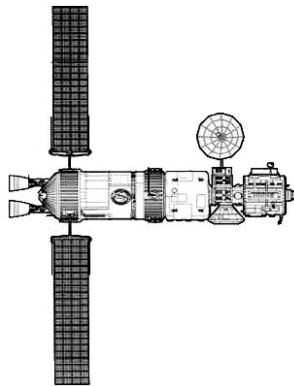
Double-pod configuration



ARES IV (lost 2032)

Length: 46 m
 Mass: 92 DWT
 Armament: none

Drive: chemical/fusion
 Range: interplanetary
 Crew: 3

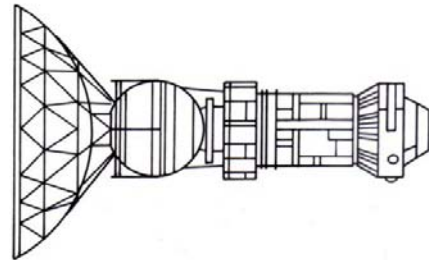


COMPANION CLASS CRUISER (2033)



Length: 117 m
 Mass: 6500 DWT
 Armament: 4 lasers/25 missiles

Drive: impulse
 Range: interplanetary
 Crew: 20



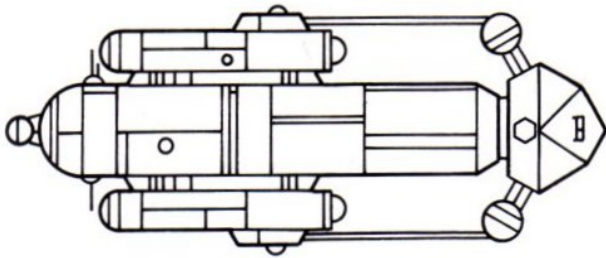
ADVANCED FUSION PROTOTYPE 1 (AFP-1) (2034)

Length: 169 m
 Mass: 7998 DWT
 Armament: none

Drive: experimental
 Range: interplanetary
 Crew: 14



Early Terran asteroid-based mass driver (c.2025)

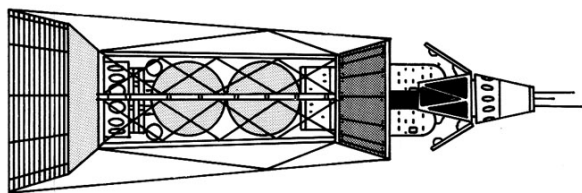
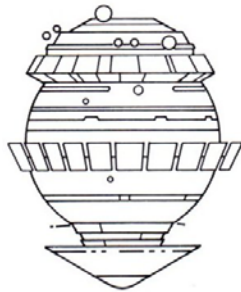


SARATOGA CLASS CARGO CARRIER
(2036)

Length: 180 m Drive: fusion
 Mass: 19,500 DWT Range: interplanetary
 Armament: none Crew: 18

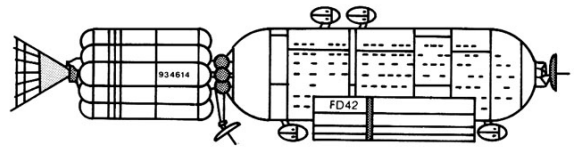
BABYSCAPHE
(2039)

Length: 12.2 m
 Mass: 20.7 DWT
 Armament: none
 Drive: impulse
 Range: interplanetary
 Crew: 3



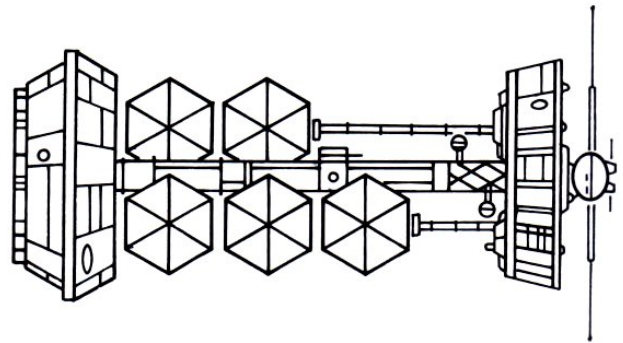
COLUMBUS CLASS EXPLORER
(2040)

Length: 120 m
 Mass: 8600 DWT
 Armament: 4 lasers, 25 missiles
 Drive: spiked antimatter
 Range: interstellar
 Crew: 40



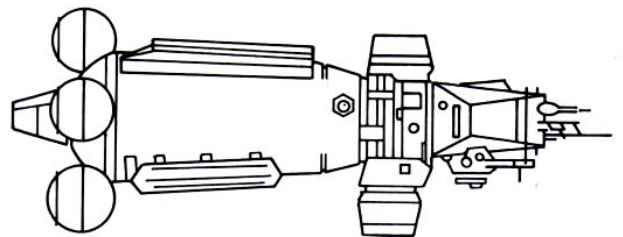
MAGELLAN CLASS SPACELINER
(2040)

Length: 100 m Drive: impulse
 Mass: 2000 DWT Range: interplanetary
 Armament: none Crew: 30 (+ 260 passengers)



PARR CLASS CARGO CARRIER
(2042)

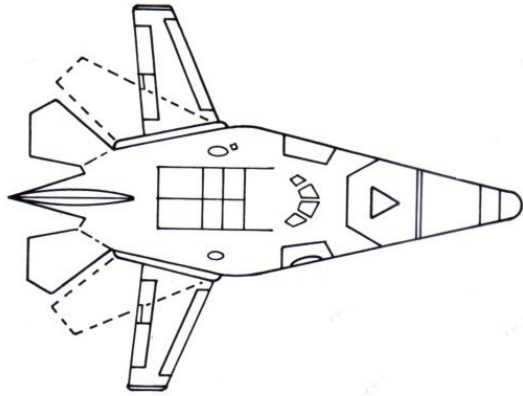
Length: 130 m Drive: impulse
 Mass: 9231 DWT Range: interplanetary
 Armament: none Crew: 18



MONTICELLO CLASS
MILITARY TRANSPORT
(2049)

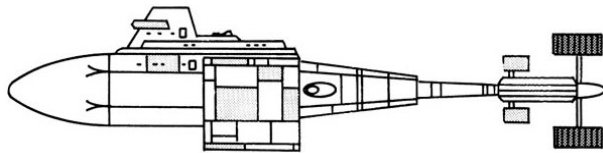
Length: 198 m Drive: impulse
 Mass: 23,692 DWT Range: interplanetary
 Armament: 2 lasers Crew: 15





**VENUS FLYER
(2046)**

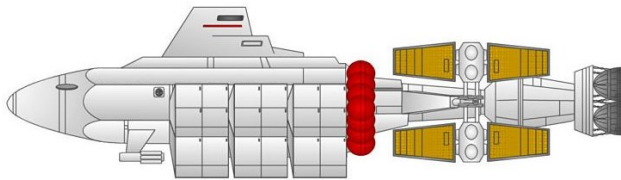
Length: 28 m
 Mass: 35 DWT
 Armament: none
 Drive: chemical
 Range: planetary
 Crew: 6



**DY-350 SERIES PROTOTYPE
(2049)**

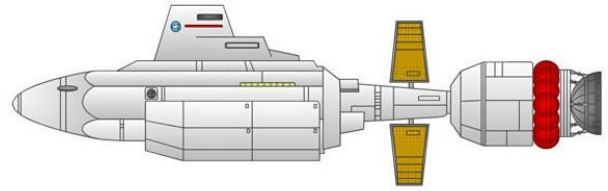


Length: 145 cm
 Mass: 19,500 DWT
 Armament: 4 lasers, 25 missiles
 Drive: impulse
 Range: interplanetary
 Crew: 8



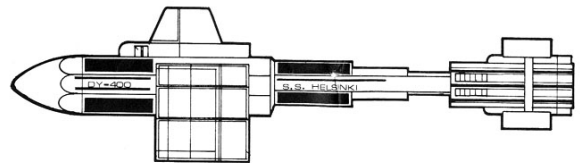
**DY-430 CLASS
(2048)**

Length: 130 m
 Mass: 38,500 DWT
 Armament: none
 Drive: impulse
 Range: interplanetary
 Crew: 20



**UPGRADED DY-500 SERIES
(2038)**

Length: 107.6 m
 Mass: 22,500 DWT
 Armament: none
 Drive: impulse
 Range: interplanetary
 Crew: 55

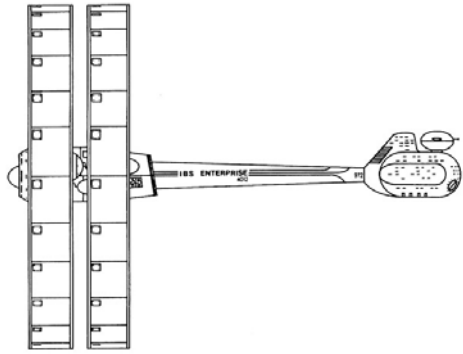


**DY-400 SERIES (aka "HELSINKI CLASS")
(2037)**

Length: 101 m
 Mass: 24,500 DWT
 Armament: none
 Drive: impulse
 Range: interplanetary
 Crew: 16

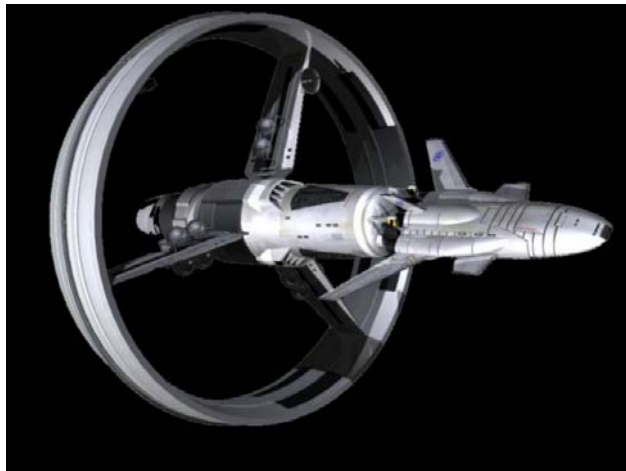


UESPA recruiting poster (2045)



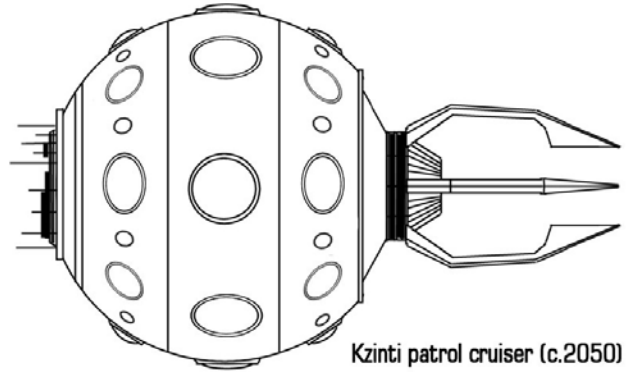
**DECLARATION CLASS
STARLINER
(2035)**

Length: 300 m
 Mass: 52,700 DWT
 Armament: 2 laser turrets
 50 fusion missiles
 Drive: ion impulse
 Range: 20 years at 0.35c
 Crew: 95



**SEARCHER CLASS SCOUT
(2036)**

Length: x m
 Mass: x DWT
 Armament: none
 Drive: x
 Range: x
 Crew:



Kzinti patrol cruiser (c.2050)



Thermonuclear blast during the Day of Fire (2047)



Kzinti warrior aboard the *Sakharov* (2048)



Terran portable mass driver, Battle of the Sol System (2049)

to be continued ...

ACKNOWLEDGEMENTS

VOLUME 3: 2026-2050

AUTHOR'S COMMENTS:

It appears that for the first time in the recorded history of *TREK* techdom I've managed to come up with a somewhat complete set of statistics on the major inhabited planet of Alpha Centauri. Many thanks to the Goldsteins and Rick Sternbach for the initial data presented in the original SFC. This I have supplemented with additional data from the Exploration Society's ArcBuilder site. Their data is a fairly close match to the limited information given in the SFC, although their geography is different and they make the third planet (not the seventh) to be the Earthlike one. I have substituted Greek names in place of theirs for all major geographical features save one: the Redlands. That didn't need any change for *TREK* conformity. Newer *TREK* sources list the fourth planet as the major one. I defer to the older sources (such as the original SFC and Shane Johnson's *Worlds of the Federation*) that list the seventh as being the main planet. The native names for the fourth and seventh planets are from Memory Beta. The name of the fifth is my invention; it is the Greek word for "barren rock." The name of Athens, the major city on Alpha Centauri VII, comes from David Schmidt's *Starfleet Dynamics*. Other non-*TREK* sources also list the city of Parthenos as one of the planet's major population centers. As for that interesting cultural footnote about the summer season? That comes from Asimov's *Foundation* series. (grin)

The UESF logo is adapted from an original design is by Aridas Sofia (*Federation Reference Series Online*), which is derived from the original UFP logo by Franz Joseph Schnaubelt (*Star Fleet Technical Manual*).

Planet of the Apes fans might recognize the mission patch for the *Charybdis*. It's a slightly modified version of ANSA's *Icarus* patch from the first *Apes* feature film.

I'm quite aware that my take on the *Charybdis* isn't the same as most of you. The most popular take seems to be the fraudulent *Ares IV* like image that was posted up a while back as an elaborate hoax. It's also too elaborate and antique a design given the time frame involved. I've borrowed the *Almucantar* from ArcBuilder due to its resemblance to the old Boeing Interplanetary CEV study of the 1970s. It also happens to dovetail nicely with the TAU Project design heritage I've tried to establish. Timo's notes helped a lot with this, although as you might guess I had some major disagreements with them. I guess everybody will have their own opinion on this subject until an "official" design comes out someday.

Former UESPA science advisor Dr. John Smith has not been seen since his involvement with the discovery of geon holes.

When last spotted, the graying, curly-haired man was in the company of a young, dark-haired woman. Both were stepping into an old-fashioned police box outside of UESPA's London office. All efforts to locate the Doctor and his companion have been fruitless. Supposedly he was off to "reverse the polarity of the neutron flow" of something or other. ;)

While I don't agree with all of Timo's conjectures on the history of Federation spaceflight I would like to mention some of his data regarding the *Columbus* class explorer. According to him there were only five ships in the class. An explosion during a fueling accident kept the *UES Columbus* from ever leaving the Sol System. The *UES Nautilus* ran into a meteor show while trying to make the passage of the Kuiper Belt and was lost with all hands on 21 January 2046. It was apparently the last one launched. The prior three -- *Icarus*, *Adam & Eve* (Timo names this the *Hector* instead) and *Prometheus* were more lucky and sustained only minor micrometeoroid damage making the same passage a few years earlier. *Columbus* was eventually appropriated for military use and armed with 4 lasers and a rack for 25 fusion missiles. Apparently it was destroyed before it could ever fire a shot in its new career. Timo's account is based on Prime Two; he has it whacked by an ECON missile in 2053. In the Prime One timeline I have it being destroyed by the Kzinti during the Battle of the Solar System in 2050.

I made the *Companion* class the UESF's first known major warship class for two reasons. First, it is described as playing the escort role in the original SFC. This would automatically make it a military vessel. Second, I couldn't be help but be struck by its likeness to the *Agammemnon* and other Earth Alliance cruisers from *Babylon 5*. It's smaller by far, yes; nevertheless it somewhat evokes the image of a small-scale *Omega* class destroyer. IMHO there would have been about 12-15 of these available for the First Earth-Kzin War. They got clobbered because they were too slow and not very maneuverable. Only a handful would be left after the end of the last war in 2065. The DY series of ships proved more effective in combat; hence the accelerated development of what would eventually become the DY-X. The DY-X, as well as the successor to the *Companion* class, will figure prominently in the Second and Third Earth-Kzin Wars.

The story of humanity's first encounter with the Kzinti is loosely based on Larry Niven's original account from "The Warriors" and the expansion of additional writers as told in the *Man-Kzin War* series of anthologies. Geoffery Mandel deserves credit for setting the guidelines for adapting the Kzinti into the *TREK* canon in his old *Star Fleet Handbook* fanzine. All I did in this case was rename the ship and change some other minor details in Niven's

story in order to make it better conform to the *TREK* universe. *TREK*'s "first contact" ship is named for pioneering Russian physicist Andrei Sakharov, who won worldwide fame for his dissident views with the former Soviet government back in the 1980s. I deliberately made the ship's crew Russian as a bit of a take on Pavel Chekov's overzealous pride in his heritage. It's my way of showing that he had something to be proud about. Russians fight like mad whenever the odds are against them, as World War II showed. They seemed, in my opinion, to be a fitting "first human foe" for the Kzinti to encounter.

The image of UESF Major General Hans Dietrich is that of actor Eric Braden from the feature film *Colossus: The Forbin Project*. He played the character of the German WWII officer Dietrich (under the name Hans Gudegast) in the old *Rat Patrol* television series. I always wanted to see him do a *STAR TREK* episode – or better yet, Captain Harlock. Too old for both now, I fear, but this is as good a way to slip him in here as any.

The image of the "Kzinti warrior" inside the *Sakharov* is actually that of a Kilrathi trooper from the *Wing Commander* feature film.

The image of the mass driver in action is borrowed from *Babylon 5*. It's actually a picture of a Centaurean cruiser bombarding the Narn homeworld in violation of interstellar treaty against such weapons. Likewise the image of the Kzinti sphere ship in flames is a "photoshopped" picture taken from an old Italian sci-fi mag with a DY-series added to the picture for the sake of reference.

You're going to be hearing a lot more from Centaurian author "Miklos Sofia" in the next issue. That's going to deal almost exclusively with the Earth-Kzin Wars, a treatment for which *TREK* fans have prayed for years. Also be sure to check out the special "sneak peak" I've included for Volume 4 at the end of this document.

By the way ... remember that 1-ton device that the *John Carter* survey team found at Sidonia? I haven't forgotten about it and neither should you. It's going to have a major impact on a certain event during the Earth-Kzin Wars. Stay tuned.

Until next time,

- Richard E. Mandel

SPECIAL THANKS TO:

Apple Computer, Inc.
HP/Compaq Computer, Inc.
Jason Bogueess
Eric Christansen
James Dixon
Ex Astris Scienta
Stan and Fred Goldstein
Greg Jein
Memory Alpha
Memory Beta
Lawrence Miller
Timo Saloniemi
David Schmidt
Aridas Sofia
Starship Schematic Database
Rick Sternbach
Wikipedia

KZINTI MATERIALS SPECIAL REGARDS:

Larry Niven (award winning novelist and Kzinti creator)
Baen Books (image of the spacesuited Kzinti)
Court Jones (Kzinti concept sketches)
Paul Lloyd (*Searcher* 3D model, Kzinti patrol cruiser model)
Aridas Sofia and Franz J. Schnaubelt (UESF logo)

VISUAL SOURCES:

ArcBuilder
Reimund Bertrams
Celestia Motherlode
Desktop Starships
Fox Entertainment
Andrew J. Hodges
Erik Holman
Greg Jein
MGM/UA Entertainment
The NASA Archives
The National Air and Space Museum
The National Archives
Michael Newlyn
Paramount Pictures
John Sennett
The SpaceArt Archives
Rick Sternbach
TrekBBS

CONTACT INFO:

Want to contribute to the *Federation Spaceflight Chronology*? You can find me on the FRS Online or Star Fleet Network forums. If you prefer direct contact then you can reach me at rtrodude@yahoo.com



Sunrise over Terra from space (stock photo)



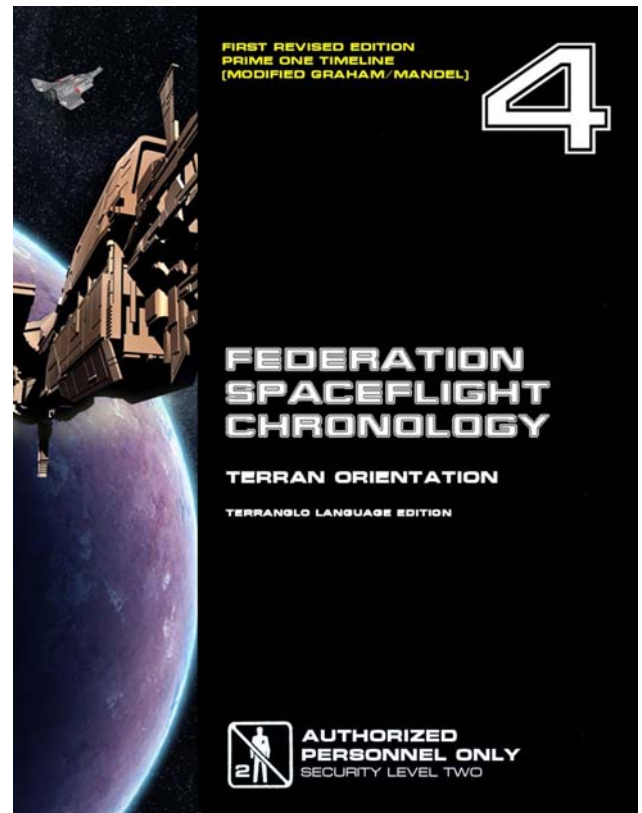
Ore haulers arriving at Asterpolis (c.2030)



“Shorty” asteroid-based mass driver (c.2045)



Kashikowa Research Station, Farside Moonbase, Luna (2050)



coming soon

