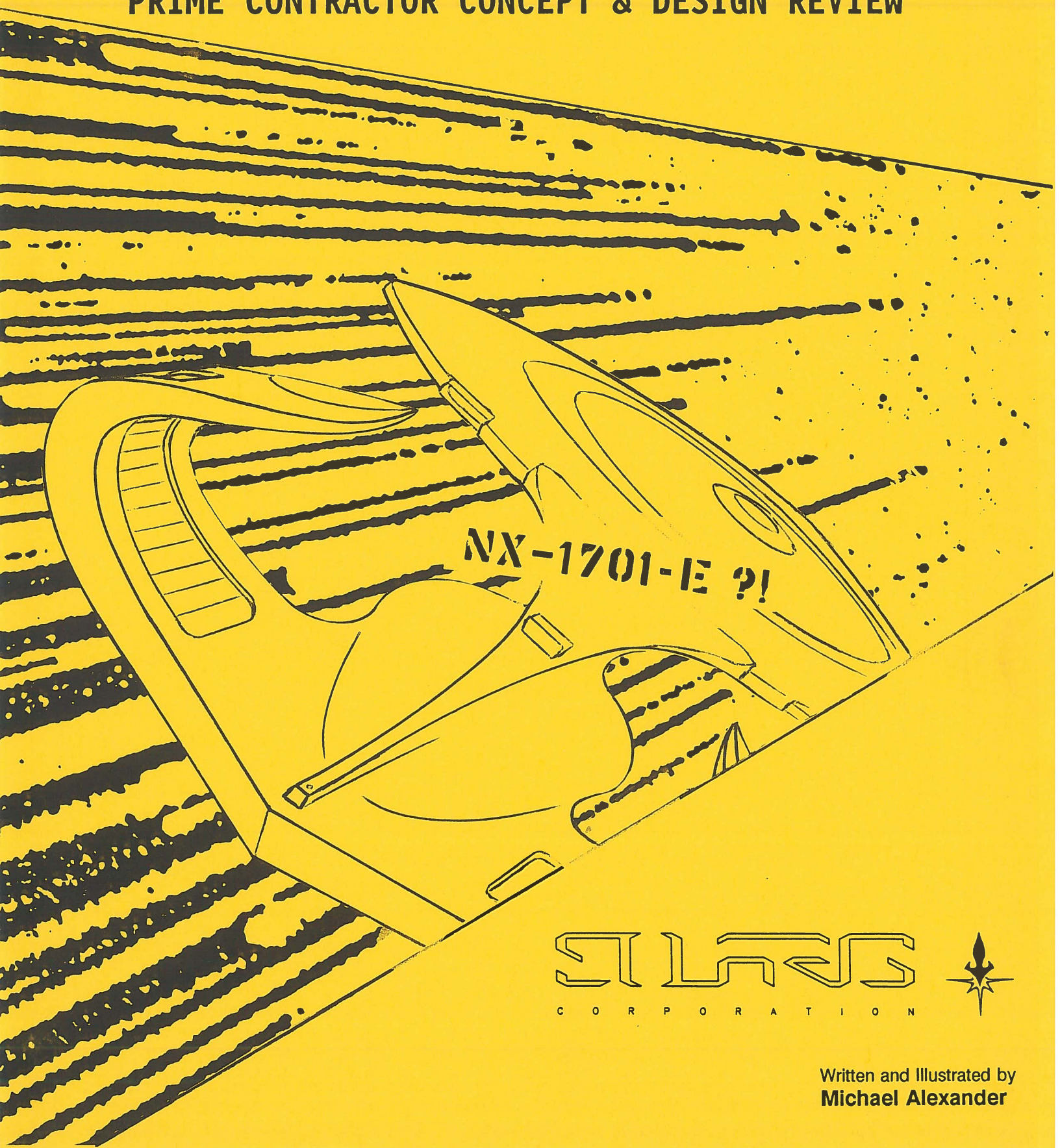
QUASAR CLASS

EXPERIMENTAL STARSHIP PROGRAM

PRIME CONTRACTOR CONCEPT & DESIGN REVIEW



SLAES

CORPORATION

Written and Illustrated by
Michael Alexander

The best way to predict our future is to create it.

Stephen R. Covey

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SENTIENT EXECUTANT ID: M57A-SLRDSN.1A SOL III

The writer/illustrator would like to take this opportunity to acknowledge the creative individuals who have found fascinating ways to rationalize the majestic lines and functional capabilities of awe-inspiring spacecraft (or who there along for the ride).

To Rick Sternbach and Michael Okuda for providing an enormous wealth of artistic and technical material for all Trekkers to enjoy. Also, a word of appreciation for the original influential concepts of Matt Jeffries and the new era Treknology of Andy Probert. Their driving artistic forces have helped to "make sure history will never forget the name...*Enterprise*."

One could not forget to mention Franz Joseph, who devised the first comprehensive *Star Trek* based technical drawings for worldwide distribution, and unwittingly galvanized this form of self-expression/escapism for the thin slice of humanity who continue to emulate him.

An emulator's age could range from 8 to 58. A dream starship could be scribbled and scrawled on dog-eared notebook paper or computer aided rendered, in a professionally printed, high priced, slick book. To all those known and unknown visionaries, who augment techno-esoterica for vessels of the spaceways; Scotty and LaForge will be proud of you, maintain course and speed! A special thanks to Trek-tech acquaintance Walt Atwood, whose talents helped to inspire this particular creative effort.

Direction and insight were influenced by the published *Star Trek* progenitors, whose writing laid the foundation upon which this project is based: *Star Fleet Technical Manual, Star Trek: The Next Generation-Technical Manual, Star Trek Spaceflight Chronology, Star Trek Mr. Scott's Guide To The Enterprise,* and *Star Trek: The Next Generation Writers' Technical Manual* and *The Wounded Sky.*

Some elements of real technical feasibility, were garnered from analyzing information from issues of *Aviation Week & Space Technology, Design News, Flight International, NASA Tech Briefs, Machine Design* and *Aerospace Engineering.*

Special recognition goes to soul-mates Dee Santos and Robert Falconer, who assisted in making quasi-sense of this spin-off of *Star Trek* technology. Heartfelt appreciation goes to Señora Alexander, who tolerated her husband's absence from the dinner table while he was trying to create new designs from the *Star Trek* universe. A thank you goes to Nicholas Alexander, who shares his father's sense of wonder.

Finally, a debt of gratitude goes to Gene Roddenberry, whose unique vision provided a enduring contribution to potential of the human spirit.

 Solaris Designs, P.O. Box 84 - Oxnard, CA 93032 U.S.A.

NX-1701-E

My family and friends are still amazed at my continued fascination with *Star Trek*, and even more amazed with the longevity and popularity of the genre. Now, at the age of thirty-five, I am still able to enjoy as I did at age nine the derring-do of heroes who somehow get the job done in less than an hour. As a five-year-old in 1962, I watched the televised *Mercury* launches as well as animated and live-action science fiction programs. This combination of viewing was to create a lasting impression, one which would ultimately lead me to pursue a career in the aerospace industry, and a zeal for drawing futuristic vehicles of action/adventure in my spare time.

I enjoy designing new elements of *Star Trek*, but there are other '60s fantasy icons that perpetuate nostalgic romanticism. How many of us fondly remember the *Seaview, Flying Sub, Fireball XL-5, Jupiter 2, Stingray, Voyager,* and the *Mach 5*? In 1970, I read Stephen E. Whitfield's *The Making of Star Trek*, and it began to sink in that *all* these fantastic vehicles were designed for just one purpose–to facilitate the telling of a story within the constraints of a TV show or motion picture budget. But even after years of real-world comprehension, the *magic* of these creations still remains.

I learned that an artist's concept can be altered or deleted at the whim of studio executives. Reading behind-the-scene publications (e.g., *Cinefantastique, Cinefex, American Cinematographer, Starlog*) informed me that the destruction of the *Enterprise* in *Star Trek III* was partially attributable to a special effects supervisor's distaste for its design. On the other hand, we Treknology fans *try* to translate studio production glitches (dramatic license) into *Star Trek* sense. Using "bogus science and techno-babble," one might be able to "explain" how an antimatter spread comes from a phaser array, or why a phaser beam emanates from a photon torpedo launcher tube.

Wherever possible, I have taken pains to extrapolate personal *Star Trek* interpretations from the work generated by the professionals. Designs such as the NX-1701-E are my own extension of a particular scenario. I enjoy the challenge of drawing a ship with functional, flowing sylph lines or, conversely, sharp, jagged ones. The theme naturally dictates the design. A decade ago I created some hydraulic pump drawings for NASA's space shuttles. But, as an aerospace draftsman, my work is presently geared toward the "aero" portion of my profession. My visionary drawings are intended to fuel the imagination...and imagination is where all ideas begin, whether based in fantasy or in reality.

The *Star Trek: The Next Generation Technical Manual* provides an immense wealth of information on the fabulous 1701-D. One gained technical insight on things never considered before. So, with a hard act to follow, much less to top, I attempted to make a case for an NX-1701-E.

To digress: I was a very disappointed eleven-year-old when *Star Trek* went off the air in 1969. At that time, I could not fathom the possibility of reruns in syndication. But I now like to imagine that downcast little boy watching the fading last credits of the 79th show and then a attention grabbing voice says, "In ten years...**the *Enterprise* will be back!**" I can see him go into sudden shock as the new movie version warps to lightspeed. The voice continues with "Snap out of it! There is more! Let us look further, into the '80s and '90s!" Then, with *ST:TNG's* next week show music in the background, he sees and hears action sequences from the six movies, and a 78 years time jump to the *Next Generation* (with a newer and larger *Enterprise*) all crammed into one eye popping, jaw dropping, fantastic minute! After the overwhelming vision ends and euphoria subsides, the dazed boy hears the narrator say, "In the years to come, you have a lot to look forward to, and *Star Trek* will be just a *part* of your adventures!"

Wild daydreams like that inspire me to venture forth with an NX-1701-E design and other forms of self expression.

Michael Alexander
December 1992

UNITED FEDERATION OF PLANETS
STARFLEET COMMAND HEADQUARTERS

SOLARIS CORPORATION
DESIGNATED PRIME CONTRACTOR

FEDERATION DECLASSIFIED
PRIORITY ONE: NON-DISCLOSURE

GENERAL STAFF HEADQUARTERS
System - Sol/Earth
San Francisco, North America

UNITED FEDERATION OF PLANETS
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FEDERATION DECLASSIFIED REPORT
QUASAR CLASS EXPERIMENTAL STARSHIP PROGRAM

DECLASSIFIED FILE HRD 3730 DD
PRIORITY ONE EPSILON: NON-DISCLOSIVE
INTELLIGENCE RATING: **DELTA**

DATABANK PRINTED EXTRACT
(HARDCOPY)

STARFLIGHT MONTHLY UPDATE:
A NX-1701-E SO SOON?!!!

Everything from superior officers and crew, to unbelievable favorable mathematical odds, to superstitious luck by "starship deities", had been used to explain the seemingly impossible success of each vessel named *Enterprise*. Does any ship with the name guarantee a continuation of legacy? Starfleet officials have made no public comment. Funding for a program unofficially tagged NX-1701-E gives some credence to that theory.

The latest *Enterprise*, designation NCC-1701-D has less than a decade of service and one major refit in it's projected 100 year operational lifetime. Other Federation starships have had histories as illustrious as that of the *Enterprise*. But with prestige and history being motivating factors, spacecraft contractors are already positioning themselves to be a part of the *Enterprise* design lineage.

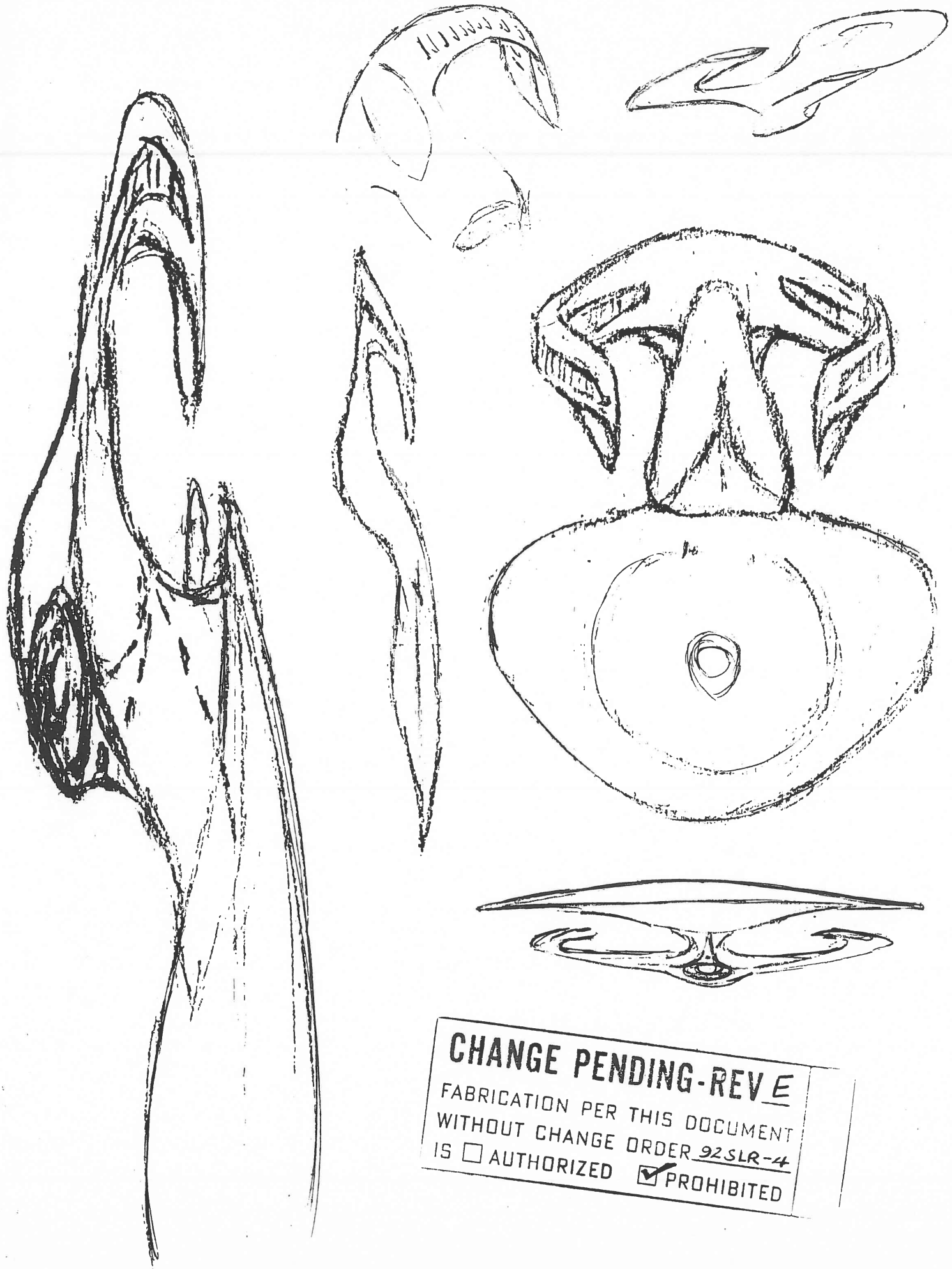
Statements from Starfleet Command's Advanced Starship Design Bureau (ASDB) put to rest notions of constructing an all new *Enterprise* for now. Presently, the NX-1701-E is an abstract icon covering all starship development programs. Existing only in computer mission simulators, present *Galaxy* class ships along with the proposed *Nova* class have evolved from their present forms to avant-garde concept configurations.

The year 2367 had projections of starship procurement thrown in disarray. During the Borg incursion, Federation starships suffered a high attrition rate in battle. Numerous vessels had to be brought out of decommissioned status and have their design life extended a decade or more. Other new starships smaller and more economically viable than the *Galaxy, Nebula* and *Ambassador* classes have been pressed into service.

Also in 2367, Starfleet's exploration goals were redifined by epic proportions. Contact with the Cytherian race provided Starfleet new insights of interstellar travel. The proposed *Quasar* is slated to be the first starship capable of multi-stellar jumps of 34,000 light-years. Remaining unexplored volumes of Federation space may be charted within decades instead of centuries. Once the stigma of fuel consumption versus distance ratio reach acceptable levels, another great leap in "high techology" will be achieved. At least 85% of the theoretical work is needed before a proof-of-concept vessel can be built.

Consultants from various starship construction firms (e.g.;the Solaris Corporation) submit their research and development proposals for study by the ASDB. Radical curvilinear non-orthogonal configurations are being visualized and analyzed, to traverse *n*th continua via a Riemann-Möebius neospace tensor. Starfleet is narrowing the gaps between innovative designs and commissioning. The NX-1701-E moniker could go under the *Galaxy, Nova* or *Quasar* class depending on the latest significant starflight advances.

Some theorists contend the success with each starship named *Enterprise* are a intergral part of the great cosmic scheme of things. Quasi-mystical reasoning aside, a 1701-E is an ever changing vision for the future. But, the 1701-D as Federation flagship, will continue to lead in exploration, science and diplomacy well into the 25th century.



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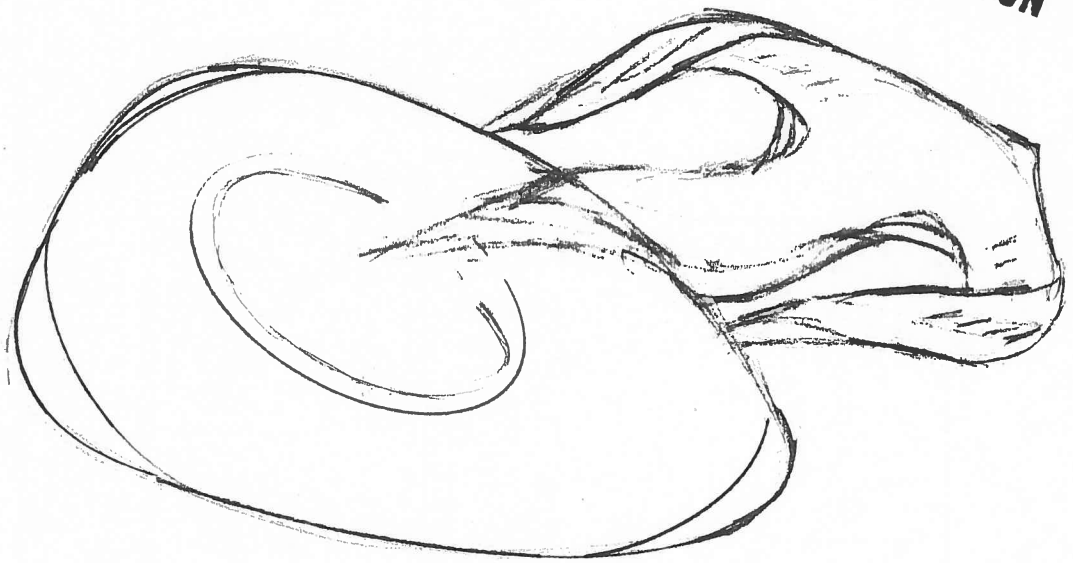
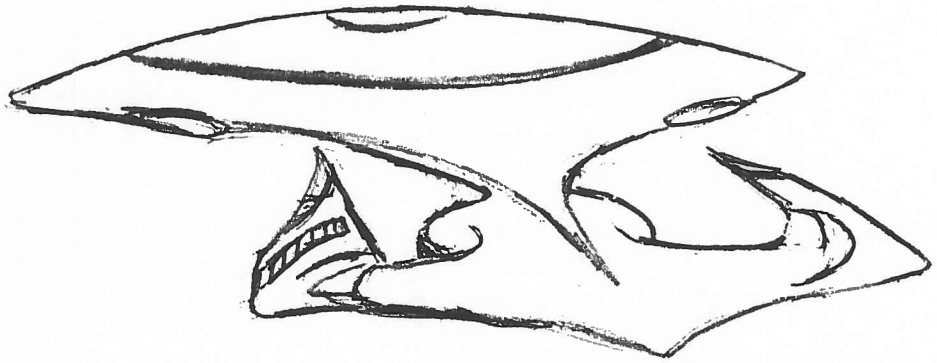
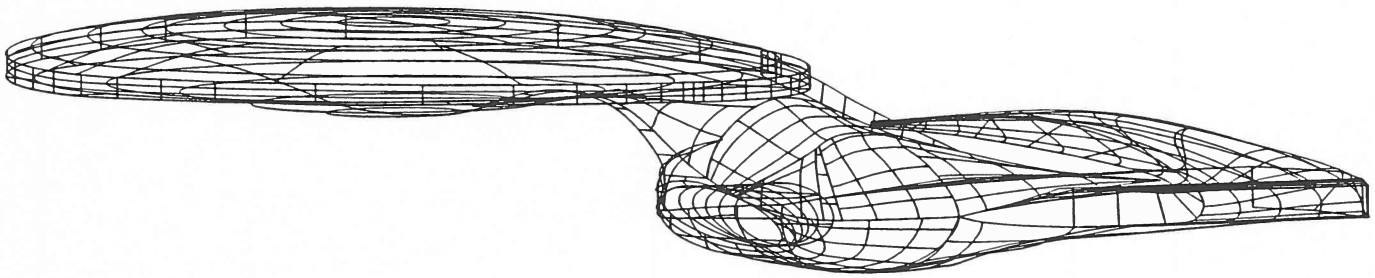
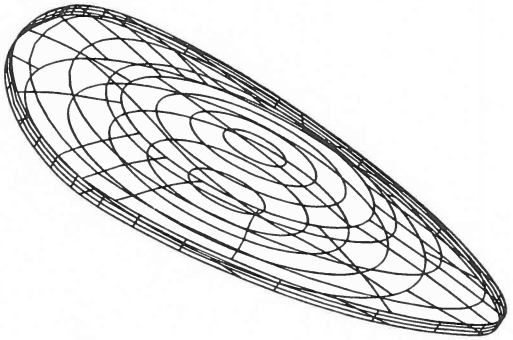
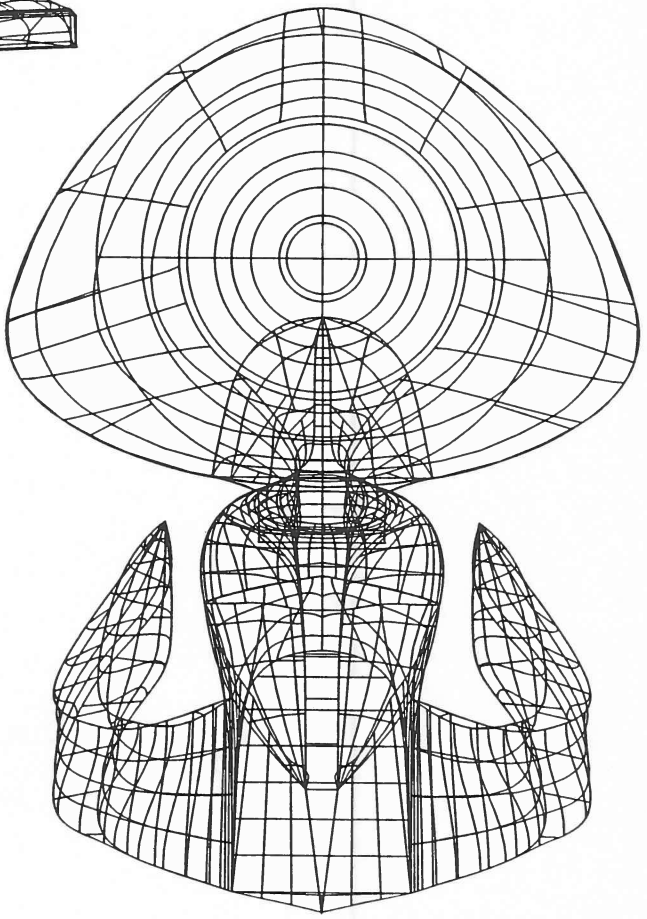
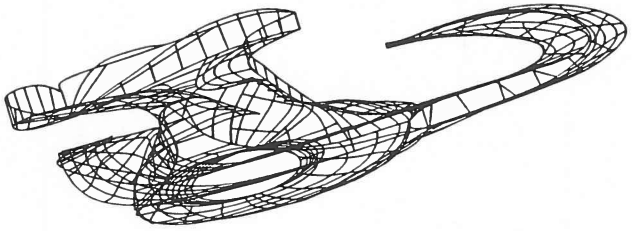












FOR ENGINEERING
DEVELOPEMENT & TEST
NAME HRD 3733 DD QUASAR CLASS

ADVANCED STARSHIP DESIGN BUREAU
SPECIFICATIONS AND TECHNICAL DATA

AUTHORIZED RESEARCH MISSION SIMULATION PROPOSAL

SUBMISSION DESIGNATION CODE: QC 919-XV57-C1

TYPE: Voyager CLASS: *Quasar* MODEL: Sui Generis

PRIME CONTRACTOR: Solaris Corporation MAIN CONSTRUCTION SITE: **CLASSIFIED**

FRAME & HULL PARTICULARS:

Overall Length: 573 m
Overall Draft: 110.7 m
Overall Beam: 396.1 m
Displacement: 355,000 mt
Number Of Decks: 37
Materials: Synergistic variable trititaniumn-dynamic matrix/duranium alloys with megapoly-composites

PROPULSION METHODS:

Star Drive: (2) AE-1 Series, Extential (Extended Dimensional) Bias Inducer Foils. Matter/Anti-matter reaction, *n*th continua MV manipulation.
Sublight Drive: (4) MF-9 Series, impulse subspacial reaction drivers.
Maneuvering Control: JA-32 series, SyncTrac precise motion thrusters.

ANALYSIS & COMMUNICATION NETWORK:

Artificial Intelligence: Daystrom Data Concepts; N-2 Duologic SynapticLink
Audio-Visual Range Transceiving: Nanospeed EM OptiRelay laser telemetry chambers, subspace radio coils.

TACTICAL RESPONSE:

Beam Emitters: (7)Type X Phaser Arrays,
Projectiles: FP-11 Photon Torpedoes (launchers, two fore and one aft)
Field Projectors: (2) Soliton driven neospatial pulsed ion trellis, guidance and sensor distruptors.
Shielding: Multi-spectrum projected deflector network. Variable density subspace/EM/graviton matrix.

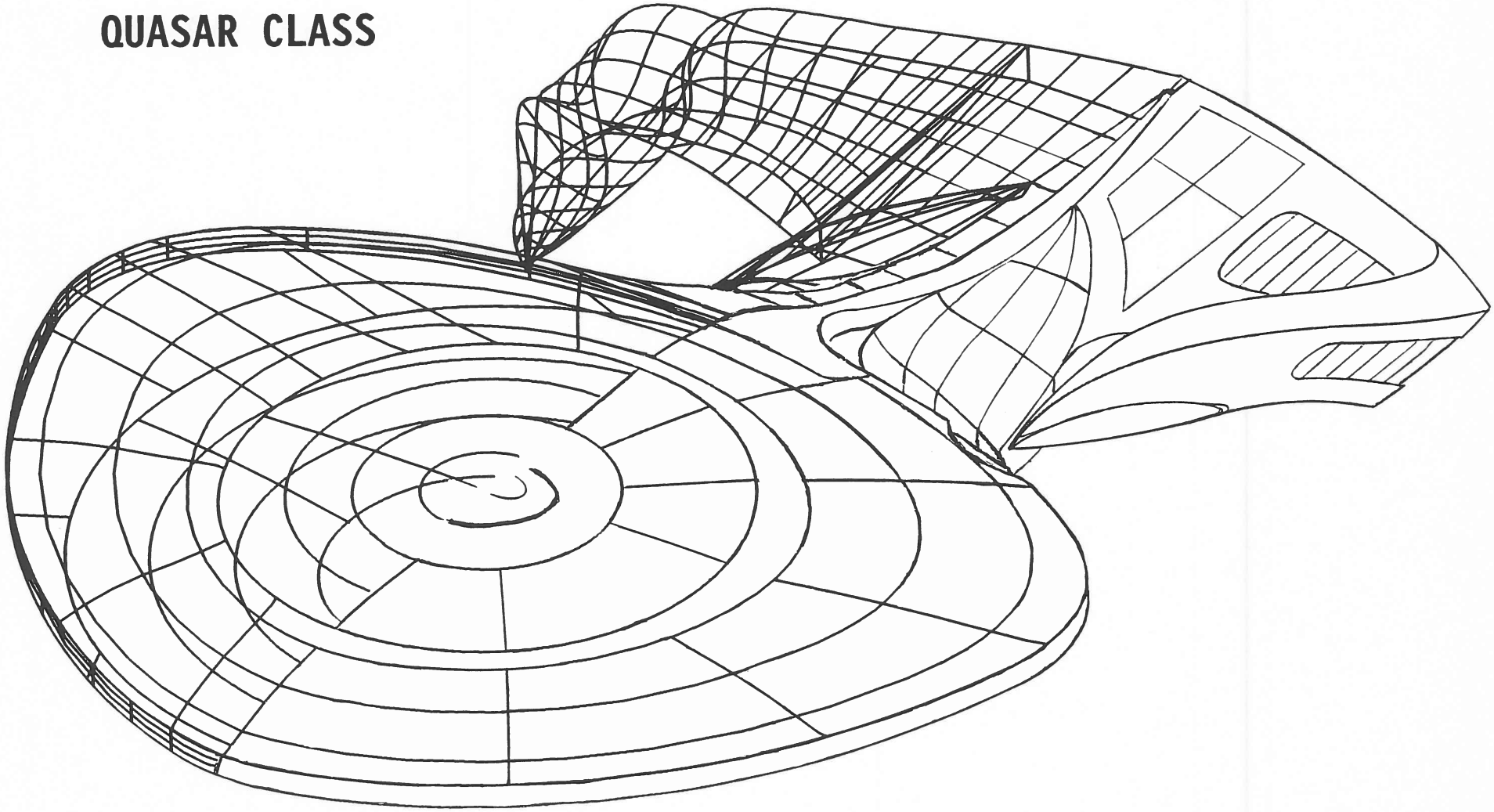
COMPLEMENT & SECONDARY TRANSPORT:

Crew: 600
Passengers: 350
Total Emergency Capacity: 4200
Shuttlecraft: 10 man - (6)
4 man - (8)
Sphinx workpod - (8)
Transporters: Personnel Units - (6)
Emergency Units - (6)
Cargo Units - (7)

ESTIMATED PERFORMANCE & DURATION:

Normal Cruising Velocity: **CLASSIFIED**
Maximum Cruising Velocity: **CLASSIFIED**
Maximum Range: 160,000 Light-Years
Expected Lifetime: 40+ years

QUASAR CLASS

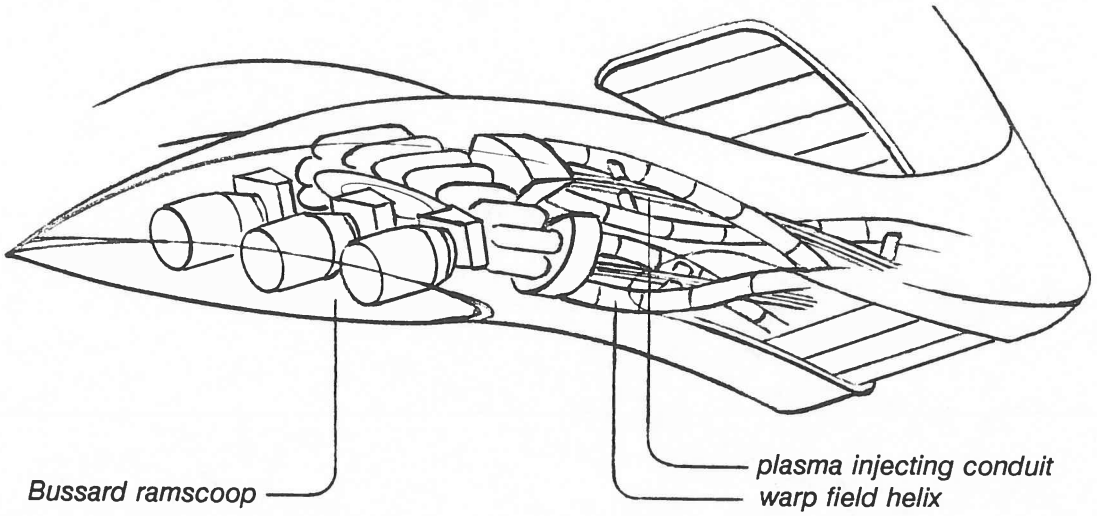


BIAS INDUCER FOILS:
A TECHNICAL SYNOPSIS

The Solaris Corporation's Avanti Effects Division is developing a revolutionary stardrive configuration for the proposed *Quasar* Class Starship Development Project. This new concept is a radical deviation from the standard warp nacelle design. The new advances are in the wake of contact with the Cytherians, who are 30,000 light years distant from Federation space. After a year of studying the acquired Cytherian data, exploration visionaries had to revise their precepts of exceeding the present limits of star travel.

Lessons were learned from the voyage of the USS *Enterprise* (1701-D) to Cytherian space. The log of the *Enterprise* recorded that its present *Galaxy* class shape precipitated a hazardous ride of quantum-level oscillation delay. Resetting ship's stabilizers to match subspace flow matrix was ineffective. A departure from the standard subspace generating planform will be necessary for efficient travel in *n*th continua.

Third-order Navier-Stokes equations will be used to create non-orthogonal curvilinear *Quasar* Class hull constructs. These formulations were first used in 2283 for the NX-1701-A, and by 2317 all research was abandoned. By 2342 the formulations were revived by the *Galaxy* Class Project. The *Quasar* Class stardrive spiroid shapes will create a Riemann-Möbius neospace vertex field. A three-lobe ellipsoid saucer section will help facilitate transition of elective mass and density whip resistance. The engines are technically nacelles, but Solaris refers to them as bias inducer foils. Instead of the standard linear placement of warp field coils, each sweeping foil will have a internal latticework of six warp field helixes to facilitate propulsion.



As with the rest of the ship, the foils will be made up of long, drawn out, multi-layered poly-filaments. The skin and framing members will be a single synergized structure. This paraorganic approach will redefine usage of the Solaris patented variable trititianium-dynamic matrix alloy (VTDX™). A quarkesque lamination process will help exceed present warp engine heat/stress dissipation, and molecular deterioration limits.

Over half the Cytherian *n*th equations are *neoparadoxes* leaving some of the best Vulcan spatial propulsion specialists perplexed. Deciphering the alien power utilization curve at the Cauchy sequence of convergence may occur by the late 2370's. The Cytherian star-jumping method confirms a century old mathematico-philosophical theorems also known as "creative physics". Solaris believes their design can put these theorems to use in the new *Quasar* class. Whether or not Solaris will be the prime contractor remains to be seen. Over the next few decades, a bevy of innovative designs from other companies are slated for scrutiny by the ASDB. For now, the 25th century awaits the advanced technological visions of today.

SOLARIS

CORPORATE MEMORANDUM

DATE: March 4, 2375

TO: **ALL EMPLOYEES**

FROM: Nicholas Jerel

SUBJECT: CONTINUATION OF THE VISION OF DESTINY

SOLARIS has been part of the Terran contribution of space exploration spanning three centuries. The DXY-900 *Constorium* was our first foray into major starship design. Other than producing shuttles and private courier craft the first 100 years, SOLARIS achieved no more than subcontractor status on Starfleet ships.

By the late 22nd century, our competitors looked on in disbelief as we won the contract to carry on the *Enterprise* legacy. But alas, our revolutionary NX-1701-A design became no more than a intangible image in mission simulators. An unexpected revised Starfleet agenda placed the NX-1701-A on permanent research and development status while the NCC-1701-A designation went to an uprated current design.

Since the days of the DYX-900 and NX-1701-A, our competitors have commented we have been too much of a risk-taker *for our own good*. I believe they say that to make themselves feel better, but in fact it makes us feel better. Our newly developed avant-garde concepts may give some credence to this reputation.

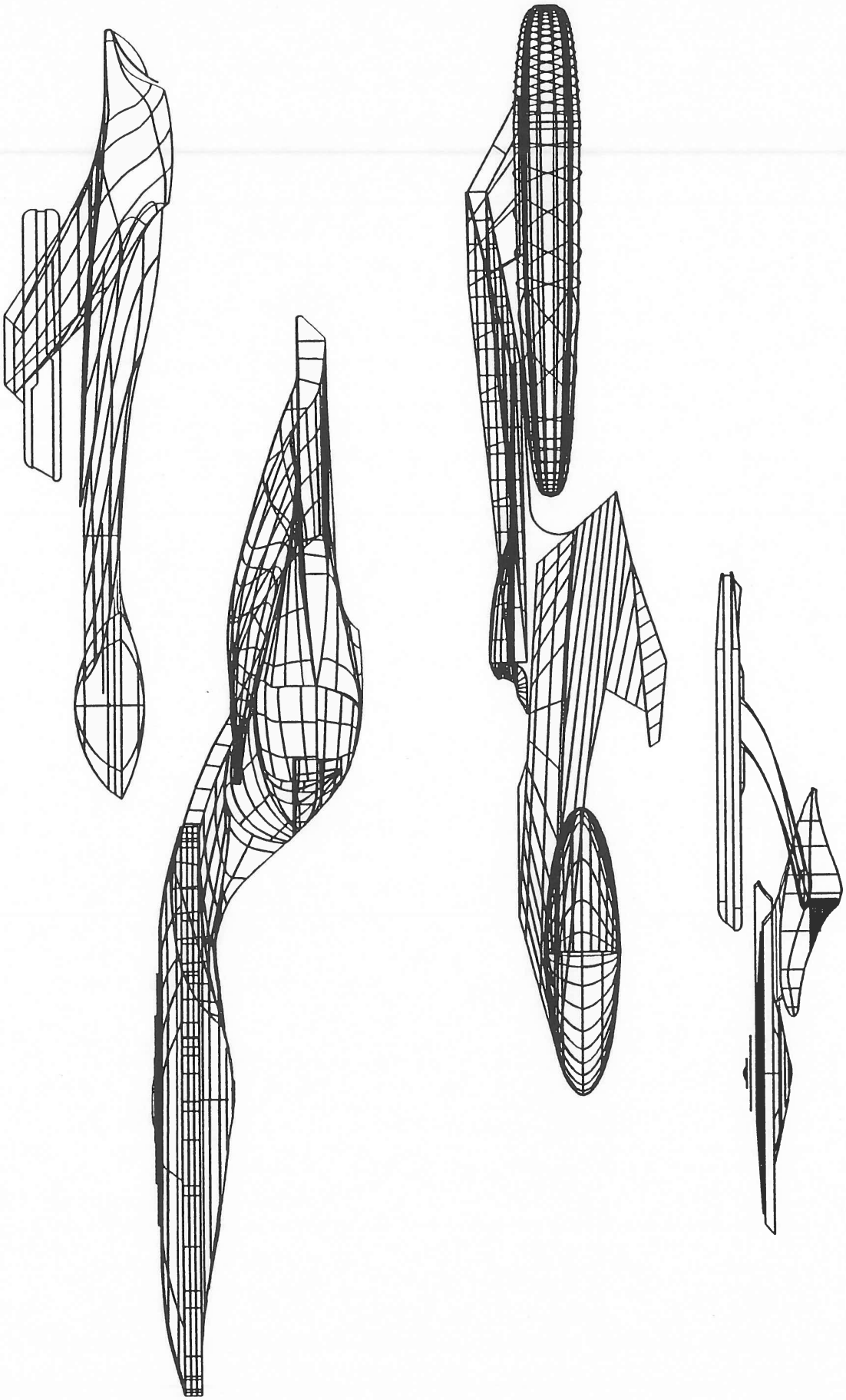
SOLARIS has a chance to be part of another grand vision. We have made the cut to eight finalists in a bid for the *Quasar* Class Development program. *Starflight Monthly* has already tabbed our proposal as the next *wonder design.* May our proposed design exceed *SM's* hype. Prime developer Avanti Effects Division, is on the threshold of a breakthrough in Riemann-traversing *n*th continua. This will revolutionize startravel and propel SOLARIS to forefront of the industry. As a preliminary step, several research vehicles will be constructed to gain benchmark algorithmic data on boundary spatial phenomena during the late 2380's.

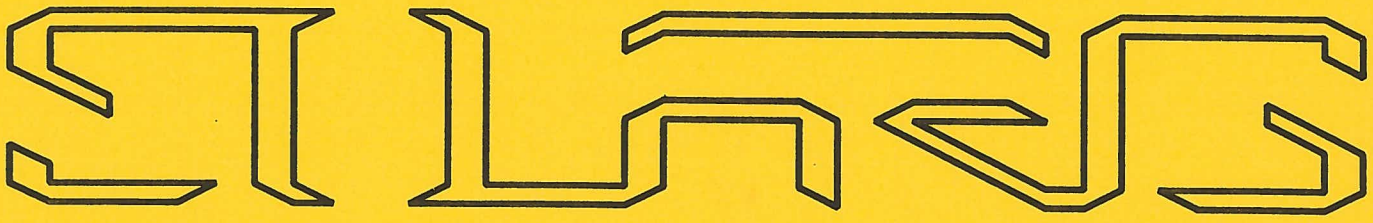
Corporate realignments and manufacturing upgrades over the last 15 years have made us more competitive. We cut back on reliance on subcontractors by 11%. This in turn will get the *Starwave* product line ready for the private sector by 2379. Starflight Synergetics with the Klingon Empire is proceeding a slow rate. The net profits from KFX-2 won't appear until a decade after the demonstration/validation phase.

The hefty pay raise you received results not only from hard work of the past year, but efforts from others of decades past. Our major role in the KFX and *Quasar* programs has made us a stronger competitor in ship design and construction. It all began with a mutual pledge signed by every employee who has ever worked for SOLARIS to fulfill visions of destiny. Your present efforts and the ones before you born, make way for achievements yet to come. In the ultimate continuing scheme of things, *the future is now!*

Let us all work together to honor our commitment to all of our customers and expand our vision of destiny.

N. M. Jerel
President





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