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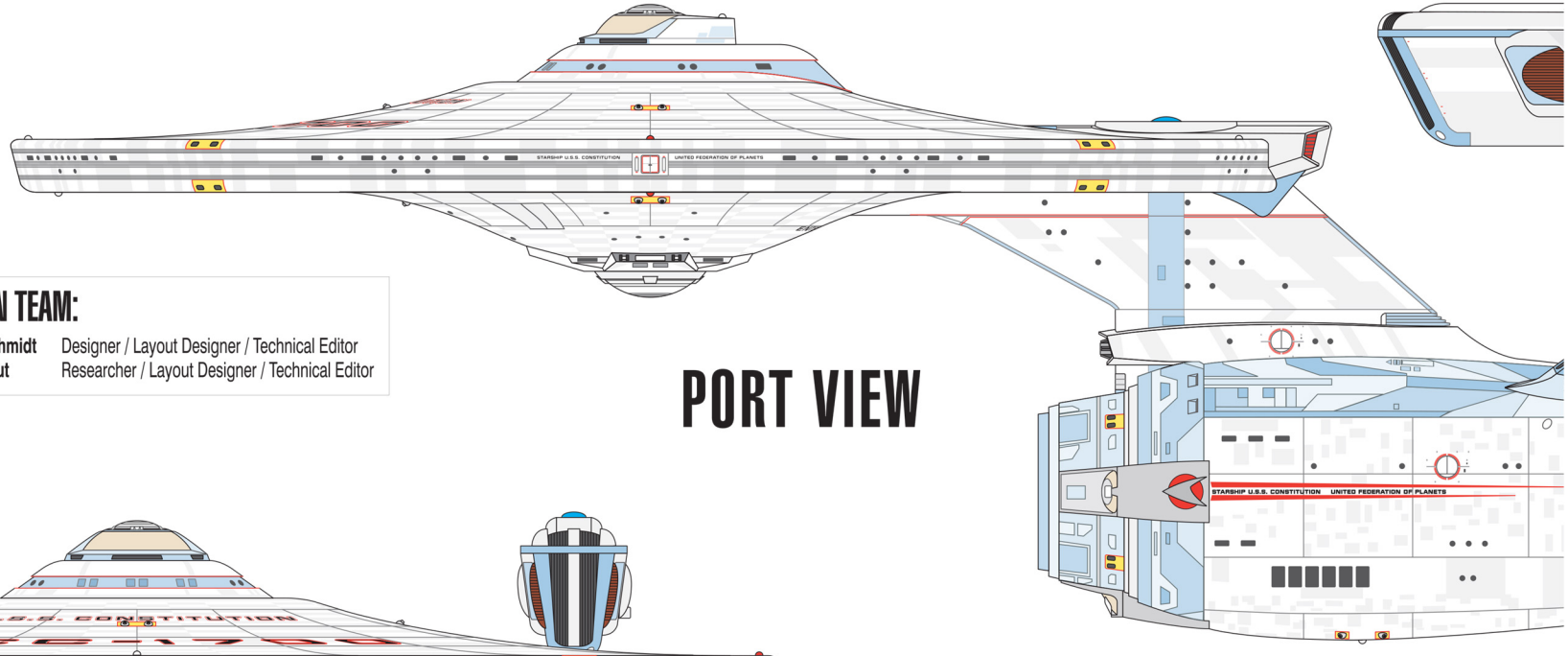
CONSTITUTION

PROTOTYPE NCC-1700 - REBUILD 1.0

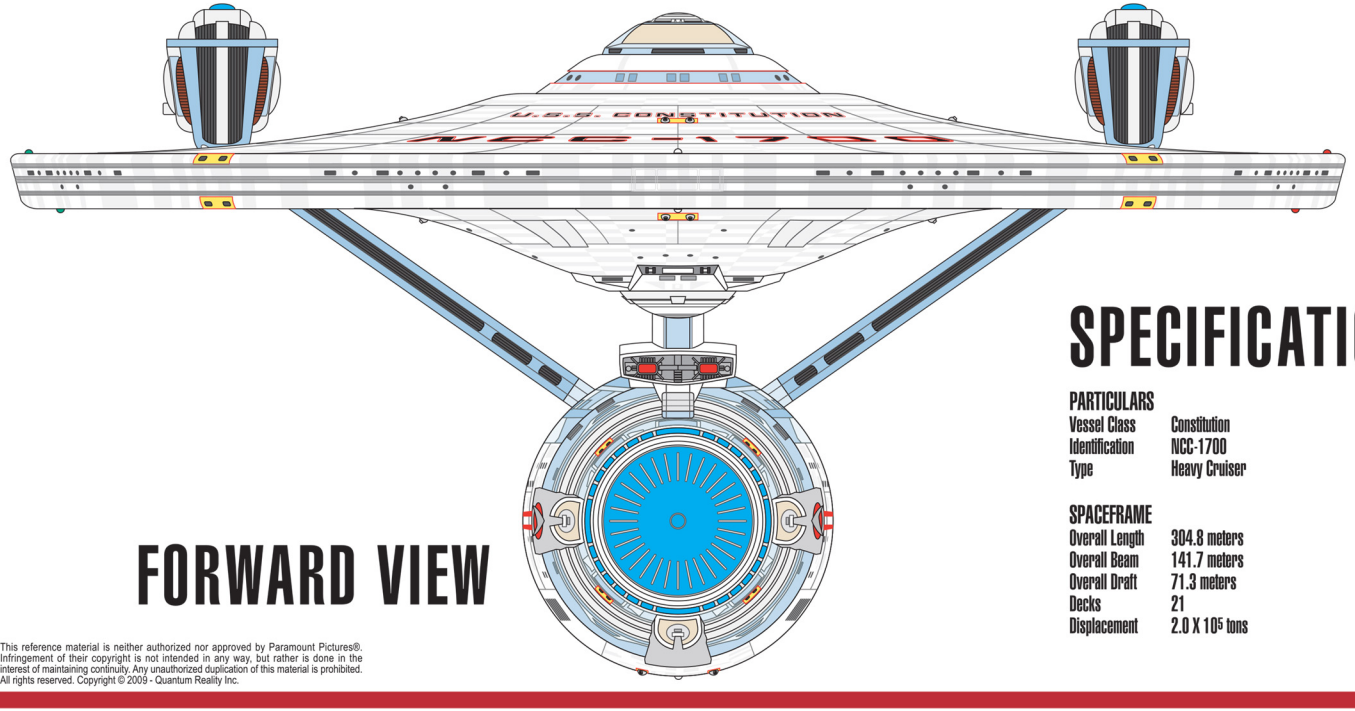
EXTERNAL VIEWS SHEET 1/15
SPECIFICATIONS
REBUILD HISTORY

DESIGN TEAM:

David Schmidt	Designer / Layout Designer / Technical Editor
Tim Palgut	Researcher / Layout Designer / Technical Editor



PORT VIEW



FORWARD VIEW

Scale
0 1 2 3 4 5 10 20

SPECIFICATIONS

PARTICULARS

Vessel Class	Constitution
Identification	NCC-1700
Type	Heavy Cruiser

SPACEFRAME

Overall Length	304.8 meters
Overall Beam	141.7 meters
Overall Draft	71.3 meters
Decks	21
Displacement	2.0 X 10^5 tons

CREW & AUXILLARY SYSTEMS

Complement	70 Officers
	336 Enlisted
Transporters	4 6-personnel
	1 22-personnel Emergency
	1 26-personnel Emergency
	2 Cargo

INFORMATION SYSTEMS

Computer Core	1
	Duotronic
	Transtator FTL Microprocessors

Warp Systems

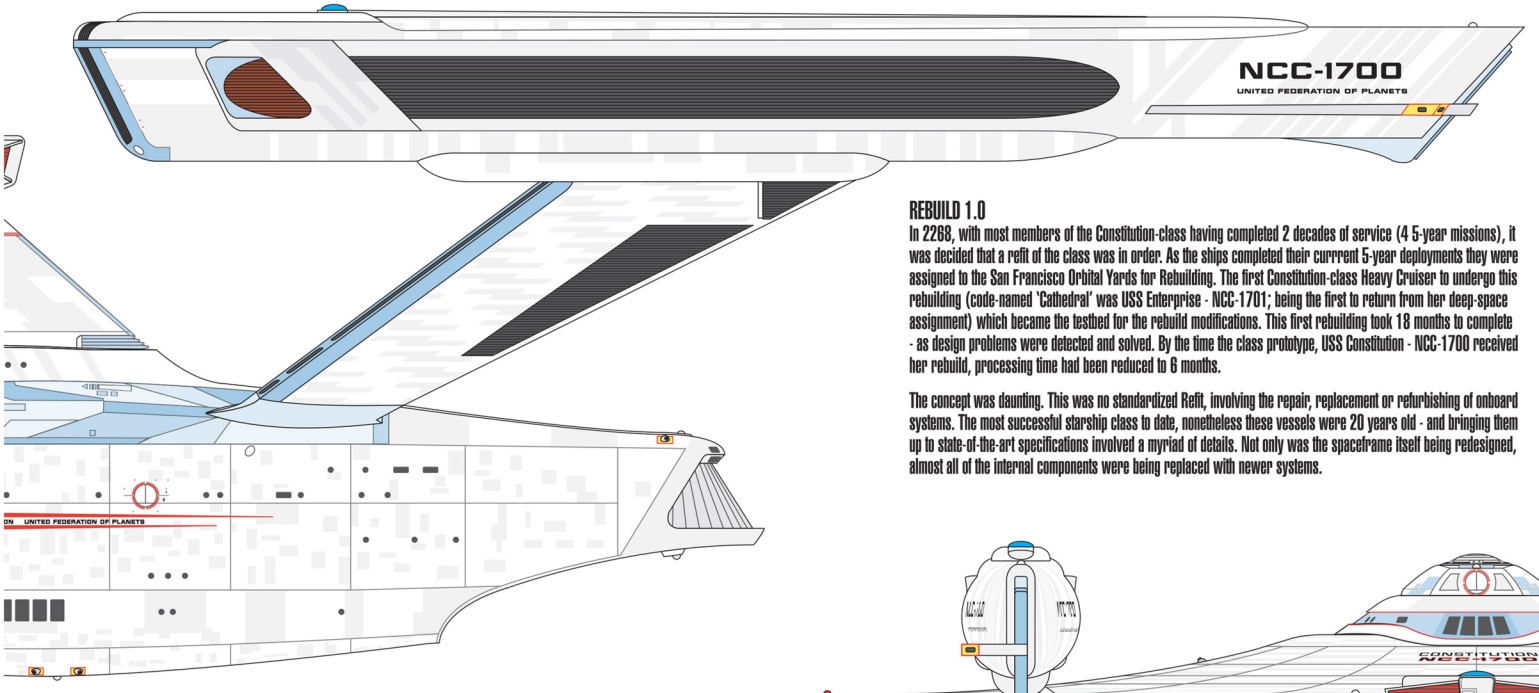
Power	Matter / Antimatter Reactor (3.9 X 10^8 terawatt)	
Cruising Speed	wf 6.0 392.50c	
Flank Speed	wf 7.0 656.14c	(Sustainable for 12 hours)
Burst Speed	wf 7.9 981.95c	(Sustainable for 1 hour)

Impulse Systems

Power	Primary - feed from warp core (1.0 X 10^{11} megawatt)
	Secondary - 4 deuterium fusion reactor (5.2 X 10^{10} megaw
Vector Nozzle	2
Cruising Speed	0.25 c
Flank Speed	0.90 c

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REBUILD HISTORY



REBUILD 1.0

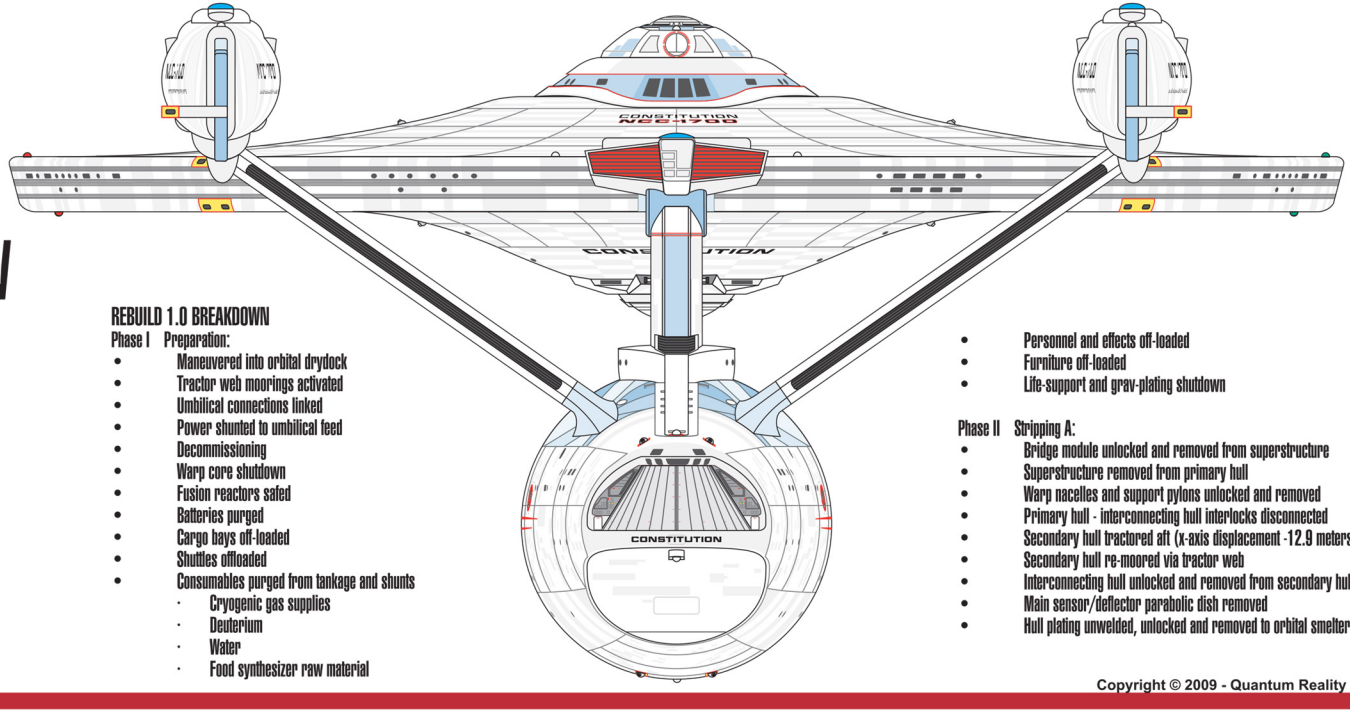
In 2268, with most members of the Constitution-class having completed 2 decades of service (4 5-year missions), it was decided that a refit of the class was in order. As the ships completed their currrent 5-year deployments they were assigned to the San Francisco Orbital Yards for Rebuilding. The first Constitution-class Heavy Cruiser to undergo this rebuilding (code-named 'Cathedral' was USS Enterprise - NCC-1701; being the first to return from her deep-space assignment) which became the testbed for the rebuild modifications. This first rebuilding took 18 months to complete - as design problems were detected and solved. By the time the class prototype, USS Constitution - NCC-1700 received her rebuild, processing time had been reduced to 6 months.

The concept was daunting. This was no standardized Refit, involving the repair, replacement or refurbishing of onboard systems. The most successful starship class to date, nonetheless these vessels were 20 years old - and bringing them up to state-of-the-art specifications involved a myriad of details. Not only was the spaceframe itself being redesigned, almost all of the internal components were being replaced with newer systems.

SUBSEQUENT SCHEDULED REFITTINGS

By 2293 most of the Constitution-class Heavy Cruisers had undergone 5 subsequent Refittings:

- Refit 1.1
  - Post-shakedown - Standard Outfitting
- Refit 1.2
  - Replacement of Bridge Module
  - Installation of Landing Bay Doors/Turbolift
- Refit 1.3
  - Replacement of Bridge Module
  - Upgrading of Sickbay
  - Upgrading of Sensor Suite
- Refit 1.4
  - Replacement of Bridge Module
  - Upgrading of Main Engineering
  - Upgrading of Sensor Suite
  - Upgrading of Computer Core
  - Upgrading of Structural Integrity Field Generators
- Refit 1.5
  - Replacement of Bridge Module



AFT VIEW

Antimatter Reactor (3.9 X 10^8 terawatt)
392.50c
658.14c (Sustainable for 12 hours)
981.95c (Sustainable for 1 hour)

- feed from warp core (1.0 X 10^{11} megawatt)
y - 4 deuterium fusion reactor (5.2 X 10^{10} megawatt)

Tactical Systems

Phaser	18 - Type VIII turret
Torpedo Tube	2 Fore - Type 2 / 1 Aft- Type 2
Magazine	80 Mark V Photon Torpedoes
	10 Probes
Grid	6 Deflector Shield Generator
	(rated 1.15 X 10^3 mw - standby / 2.69 X 10^3 mw - alert / 4.73 X 10^6 mw - 0.0017 Sec.)
	5 Structural Integrity Field Generator (rated 1.15 X 10^3 mw)
Deflector	1 - Forward (1.51 X 10^2 megawatt - 187 millicochrane)
Tractor Beam	Main - 1 Aft (8 megawatt - 225 millicochrane)
	1 Shuttlebay (internal)

REBUILD 1.0 BREAKDOWN

Phase I Preparation:

- Maneuvered into orbital drydock
- Tractor web moorings activated
- Umbilical connections linked
- Power shunted to umbilical feed
- Decommissioning
- Warp core shutdown
- Fusion reactors safed
- Batteries purged
- Cargo bays off-loaded
- Shuttles offloaded
- Consumables purged from tankage and shunts
  - Cryogenic gas supplies
  - Deuterium
  - Water
  - Food synthesizer raw material
- Personnel and effects off-loaded
- Furniture off-loaded
- Life-support and grav-plating shutdown

Phase II Stripping A:

- Bridge module unlocked and removed from superstructure
- Superstructure removed from primary hull
- Warp nacelles and support pylons unlocked and removed
- Primary hull - interconnecting hull interlocks disconnected
- Secondary hull tractored aft (x-axis displacement -12.9 meters)
- Secondary hull re-moored via tractor web
- Interconnecting hull unlocked and removed from secondary hull
- Main sensor/deflector parabolic dish removed
- Hull plating unwelded, unlocked and removed to orbital smelters

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CONSTITUTION

PROTOTYPE NCC-1700 - REBUILD 1.0

EXTERNAL VIEWS SHEET 3/15
REBUILD HISTORY
INTERNAL SYSTEMS

REBUILD HISTORY

REBUILD 1.0 BREAKDOWN

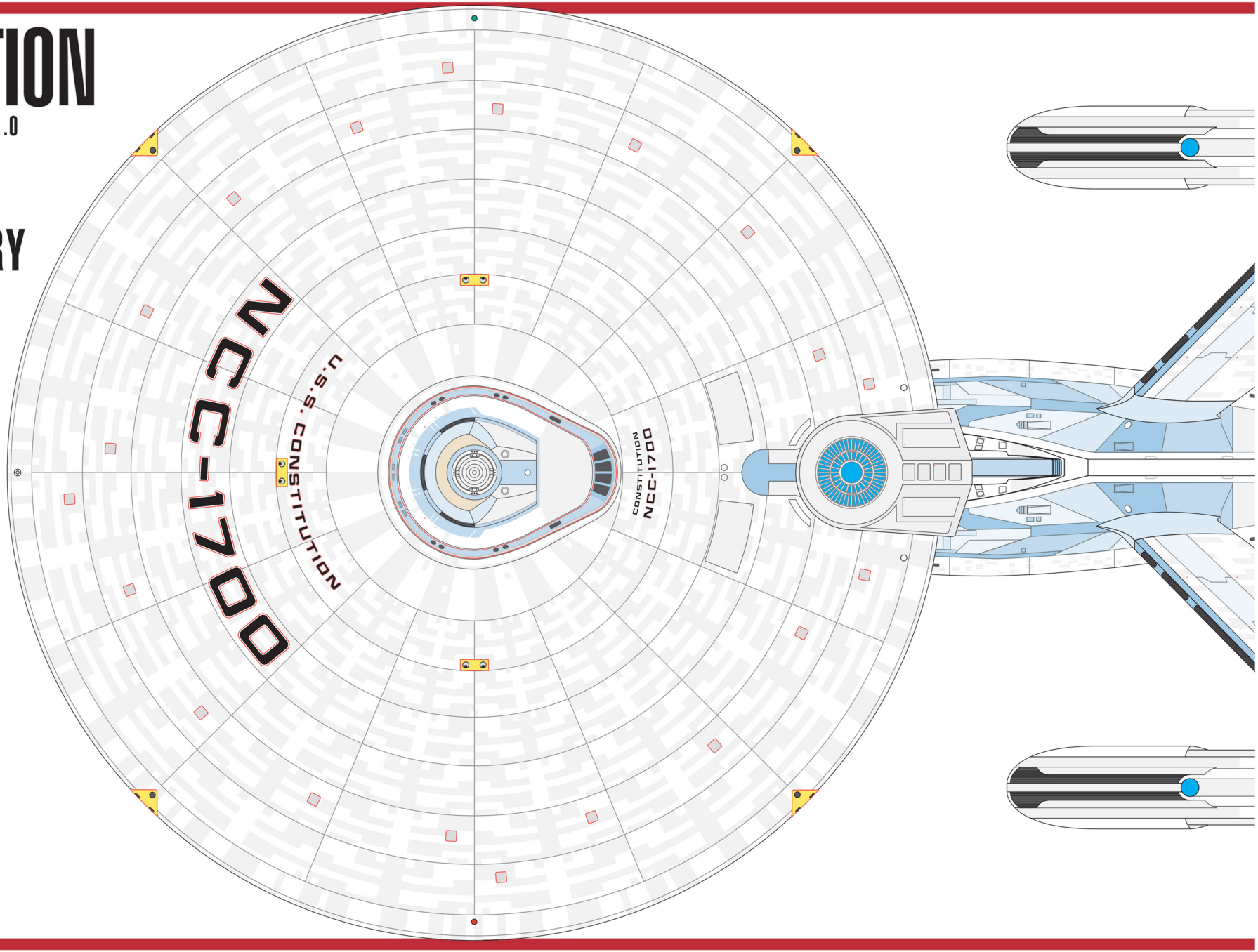
Phase III Stripping B:

- Various systems removed for later replacement
  - Warp core/antimatter processor/containment pods assembly
  - Ventral sensor suite assembly
  - Main & secondary computer cores
  - Structural integrity generators (SIF)
  - Force-field/deflector screen generators
  - Electro-plasma system conduits (EPS)
  - Phaser turrets
  - Control consoles
  - Furniture
- Various systems rebuilt/repaired/refurbished in place
  - Transporter Chambers/Emitters/Buffers
  - Food, organic and inorganic synthesizers
  - Life support facilities
  - Optical data network (ODN)
- Various compartments and structures modified
  - Bulkheads
  - Decking
  - Corridors
  - Jefferies Tubes
  - Main Engineering
  - Gymnasium
  - Recreation
  - Arboretum

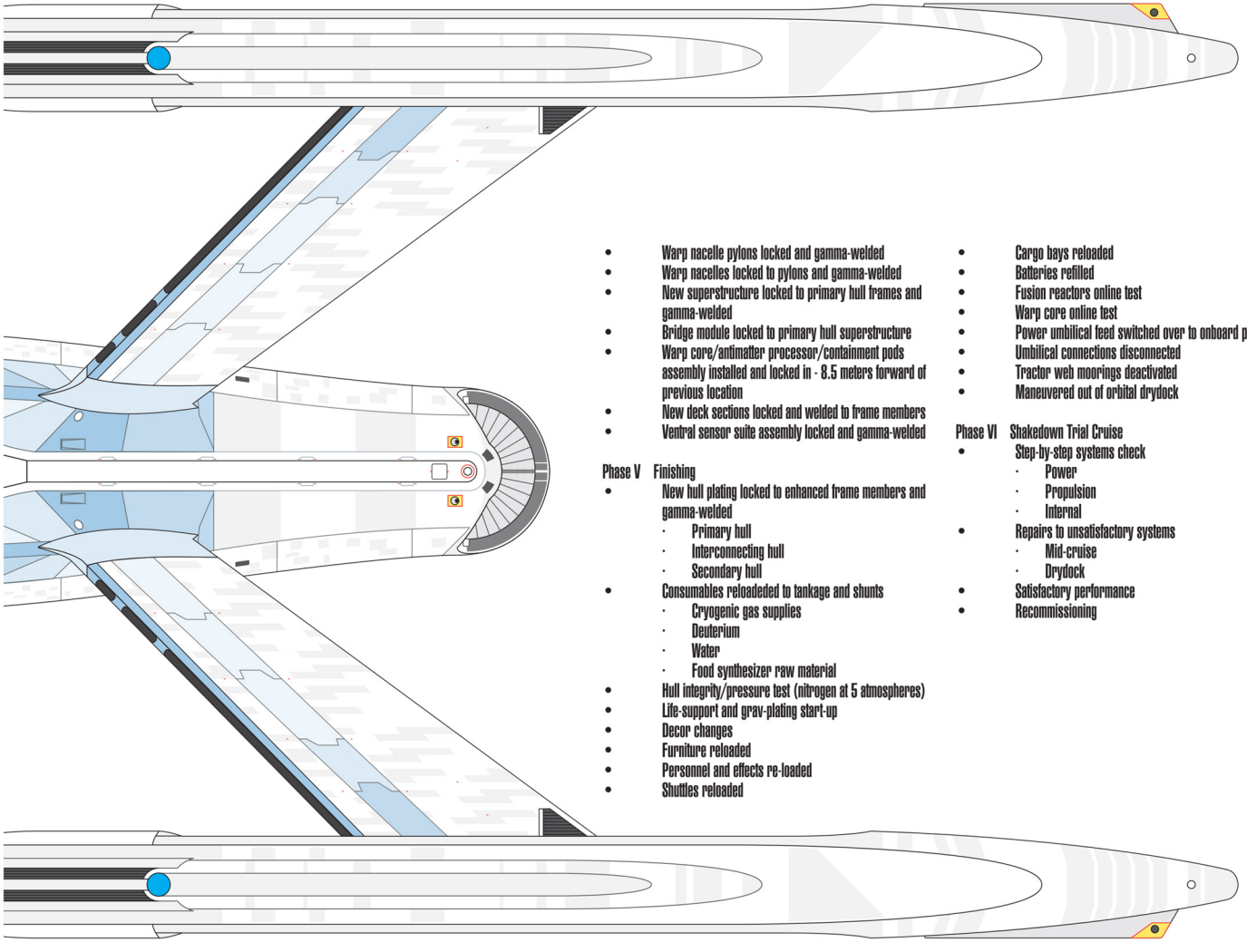
Phase IV Replacement:

- Frame augments and extensions locked to frame members and gamma-welded
  - Primary hull
  - Secondary hull
- Interconnecting hull locked to secondary hull and gamma-welded
- Interconnecting hull locked to primary hull via explosive bolts

DORSAL VIEW



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- Warp nacelle pylons locked and gamma-welded
- Warp nacelles locked to pylons and gamma-welded
- New superstructure locked to primary hull frames and gamma-welded
- Bridge module locked to primary hull superstructure
- Warp core/antimatter processor/containment pods assembly installed and locked in - 8.5 meters forward of previous location
- New deck sections locked and welded to frame members
- Ventral sensor suite assembly locked and gamma-welded

Phase V Finishing

- New hull plating locked to enhanced frame members and gamma-welded
  - Primary hull
  - Interconnecting hull
  - Secondary hull
- Consumables reloadeded to tankage and shunts
  - Cryogenic gas supplies
  - Deuterium
  - Water
  - Food synthesizer raw material
- Hull integrity/pressure test (nitrogen at 5 atmospheres)
- Life-support and grav-plating start-up
- Decor changes
- Furniture reloaded
- Personnel and effects re-loaded
- Shuttles reloaded
- Cargo bays reloaded
- Batteries refilled
- Fusion reactors online test
- Warp core online test
- Power umbilical feed switched over to onboard power
- Umbilical connections disconnected
- Tractor web moorings deactivated
- Maneuvered out of orbital drydock

Phase VI Shakedown Trial Cruise

- Step-by-step systems check
  - Power
  - Propulsion
  - Internal
- Repairs to unsatisfactory systems
  - Mid-cruise
  - Drydock
- Satisfactory performance
- Recommissioning

Scale
0 1 2 3 4 5 10 20

INTERNAL SYSTEMS

Section 1.0 Spacecraft Spaceframe & Hull
The most obvious of the Rebuild 1.0 modifications is the larger spaceframe. After hull plate removal (and subsequent frame inspection for buckling and shearing), all frame members of the Primary and Secondary Hulls were augmented with extensions - which when locked and gamma-welded to the original frame members increased the hull volume to 112%. Original hull plates were recycled via orbital smelter, and new hull plates matching the Rebuild 1.0 planeform were produced.

Section 1.1 Structural Integrity Field
The SIF generators were replaced with the uprated Type SIF2300A during the Refit 1.4.

Section 1.2 Inertial Damping Field & Synthetic Gravity Generators
Except for new installations under new deck areas, the original IDF/SG generator network was left untouched.

Section 1.3 Security & Containment Force Field Generators
Except for new installations (such as the new Engineering and Security complexes), the original S/CFF generator network was left untouched.

Section 1.4 Main Deflector
The MD generators were replaced with the uprated Type MD5667C during the Rebuild. The external parabolic dish was replaced by the new Type MD5667D conformal array dish.

Section 1.51 Ordnance: Phasers
One of the most visible system modifications is the replacement of the Type VII Phaser Turret with the Type VIII. Following improvements to shield dynamics and power, Starfleet design engineers chose to discontinue the practice of retracting the phaser cannon emitter heads within the hull when offline. Besides being mechanically simpler, the new turrets improved power through-put to 145% by tapping the warp core directly via dedicated EPS conduits. Additional turrent Phaser Turrent locations were added in response to the increased Klingon threat.

Section 1.52 Ordnance: Photon Torpedoes
The P12DTA was replaced with the P2DTA Photon Torpedo Launch Bay System. The P2DTA (Photon Suite - 2nd Version - Dorsal Mount - Tandem) design features a single Launch bay with a single centerline track running forward from the staging area to the loading hatch. After entering the loading subsystem, the torpedo was conveyed laterally port or starboard to the twin torpedo tubes - and then through the linear accelerator. Flexible in utility, the large Launch Bay can be used as a torpedo maintenance room as well, by placing removable gratings over the loading track. The two magazines were positioned on the two Interconnecting Dorsal Hull decks immediately above, and torpedoes are lowered to the staging area via telescoping crane.

Section 1.53 Ordnance: Force-field / Deflector Screen Generators
All FF/DS generators were removed and replaced with the Type FF/DS7764W, which features higher harmonic range, greater intensity, and much faster charging and response cycling time. Additionally, the force-field waveguide grid was augmented to reflect the larger spaceframe.

Section 2.0 Computer Systems
The Type MCC8745MT Main Computer Core integral unit replaces the original, externally-indistinguishable unit. Within however, all 57,600 duotronic chips have been replaced with the new multitronic chips, doubling processing speed and quadrupling capacity.

Section 2.1 Information Gathering Systems
The DNSS8445 Dorsal Navigational Sensor Suite accompanies the new BM8994C Bridge Module. The VNSSS3347Q Ventral Navigational/Science Sensor Suite on the underside of the Primary Hull has 4 lateral bays containing directional science sensors. Three LRSS2245 Long Range Sensor Suites have replaced the previous suites, to port, starboard and below the Main Deflector Dish on the Secondary Hull.

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CONSTITUTION

PROTOTYPE NCC-1700 - REBUILD 1.0

EXTERNAL VIEWS SHEET 5/15

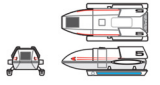
INTERNAL SYSTEMS

SYMBOL CHART

EMBARKED CRAFT



Work Bee

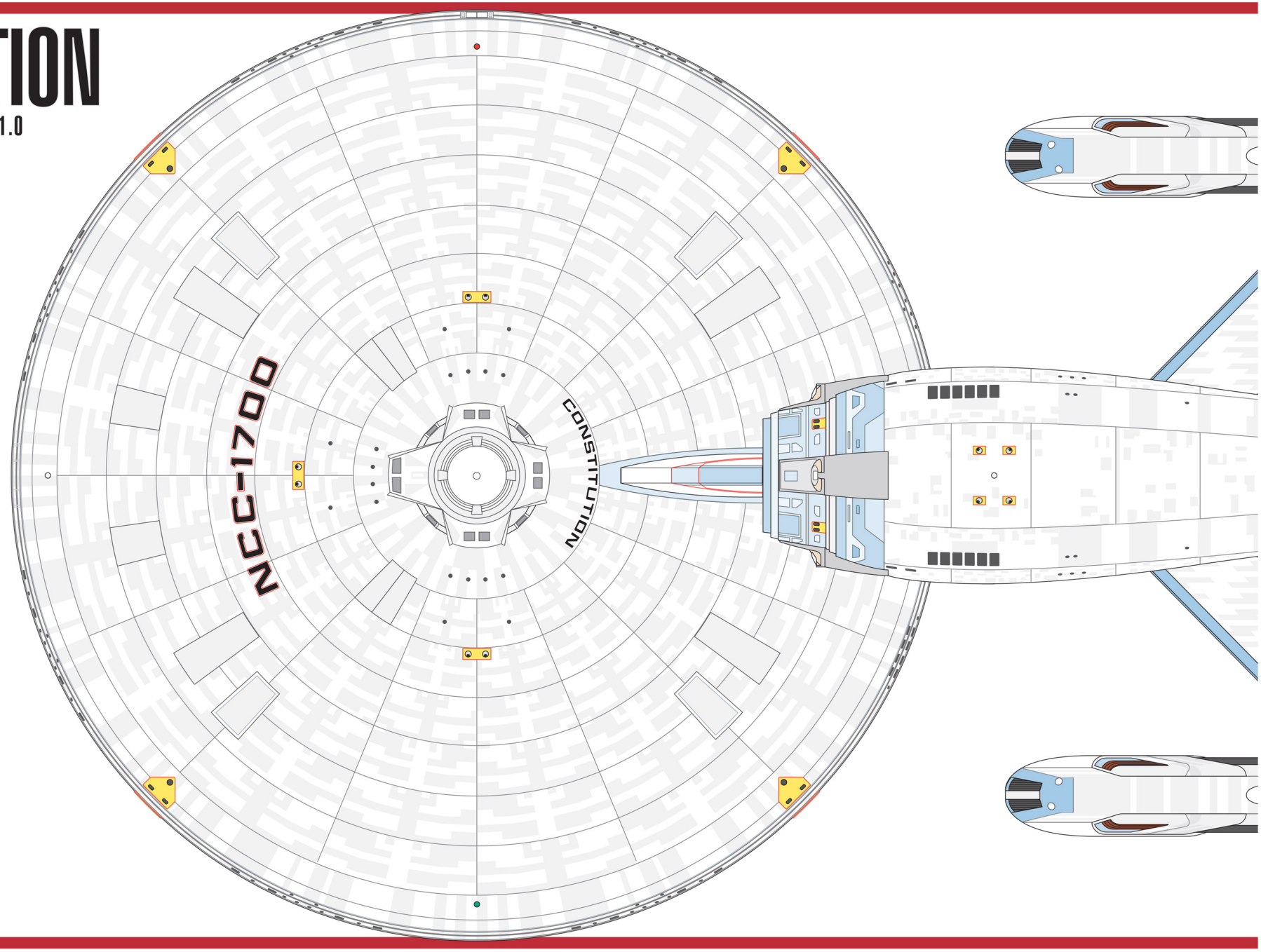


Type 5 Shuttle

ESCAPE SYSTEMS



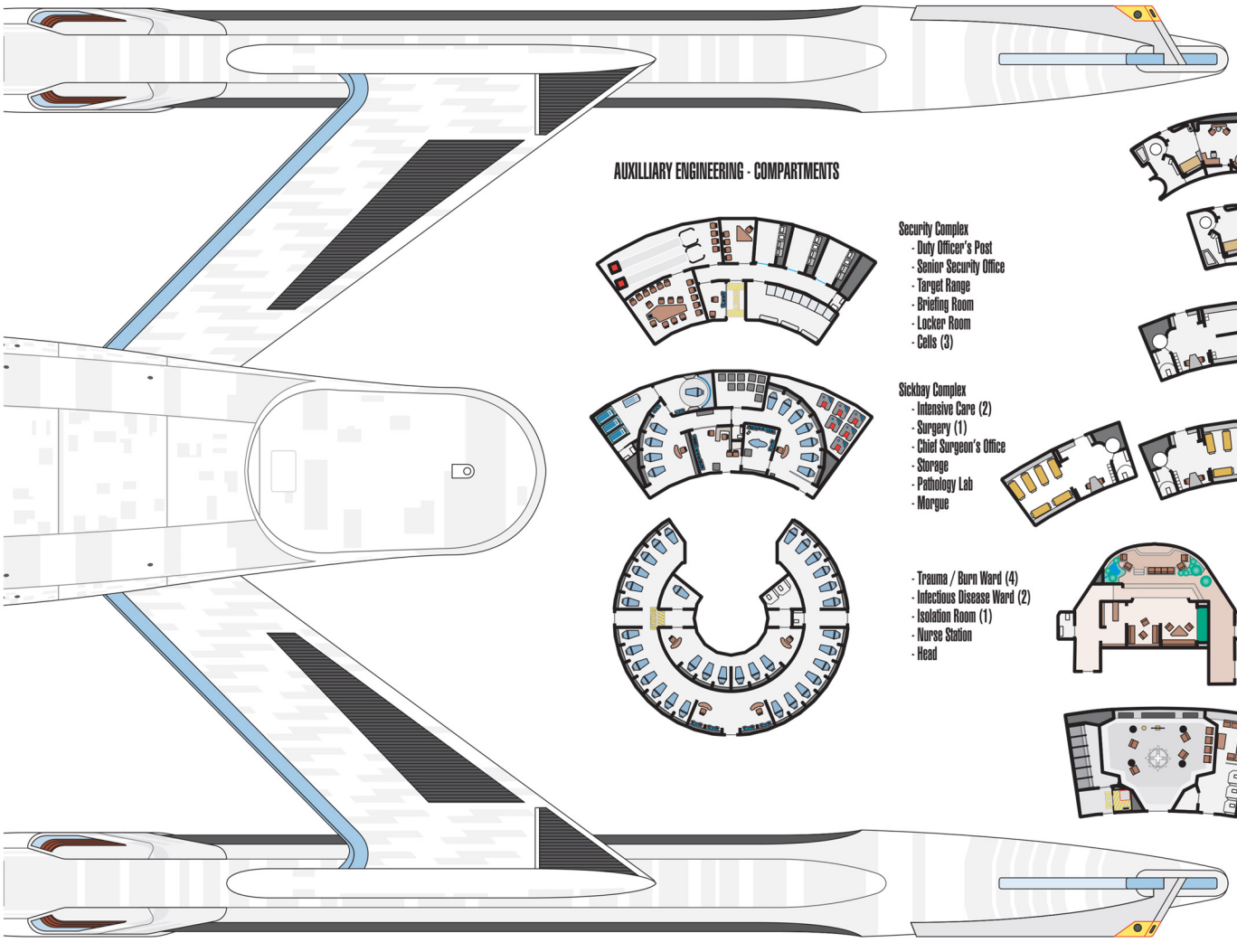
Escape Pod



VENTRAL VIEW

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SYMBOL CHART



AUXILLIARY ENGINEERING - COMPARTMENTS

Security Complex
- Duty Officer's Post
- Senior Security Office
- Target Range
- Briefing Room
- Locker Room
- Cells (3)

Sickbay Complex
- Intensive Care (2)
- Surgery (1)
- Chief Surgeon's Office
- Storage
- Pathology Lab
- Morgue

- Trauma / Burn Ward (4)
- Infectious Disease Ward (2)
- Isolation Room (1)
- Nurse Station
- Head

Senior Officer's Quarters:
- Sleeping Area
- Lounge & Dining Area
- Closet
- Head & Sonic Shower

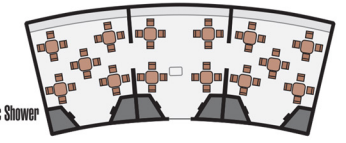
Officer's Quarters:
- Sleeping Area
- Head & Sonic Shower
- Closet

Junior Officer's Quarters:
- Sleeping Area
- Dining Area
- Lockers
- Head & Sonic Shower

Enlisted Quarters:
- Sleeping Area (4 or 6 3-tiered bunks)
- Dining Area
- Lockers
- Head & Sonic Shower

Officer's Lounge
- Conference Lounge
- Observation Lounge
- Heads (2)

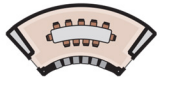
Forward Observation Lounge
- Main Lounge
- Relaxation Lounge with Heads
- Storage Room
- Upper Hull Airlock/Elevator / EVA Suit Locker



Enlisted Mess
- 14 Tables (56 Personnel)
- 4 Food Delivery Slots



Briefing Room



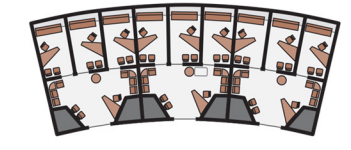
Officers' Dining Room



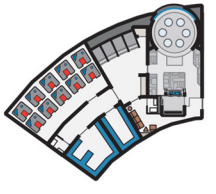
Diagnostics & Repair Workshop / Lab:
- Work Table
- Research Area
- Operators' Stations



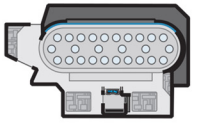
Science Lab
- Research Area
- Operators' Stations



Office Complex
- 9 Offices
- 3 Waiting Rooms / Yeoman's Desk Area



6-Personnel Transporter Room
- Stage
- Shielded Operator's Station
- EVA Suit Lockers
- Dedicated Battery Compartment
- Storage
- Armory
- Head

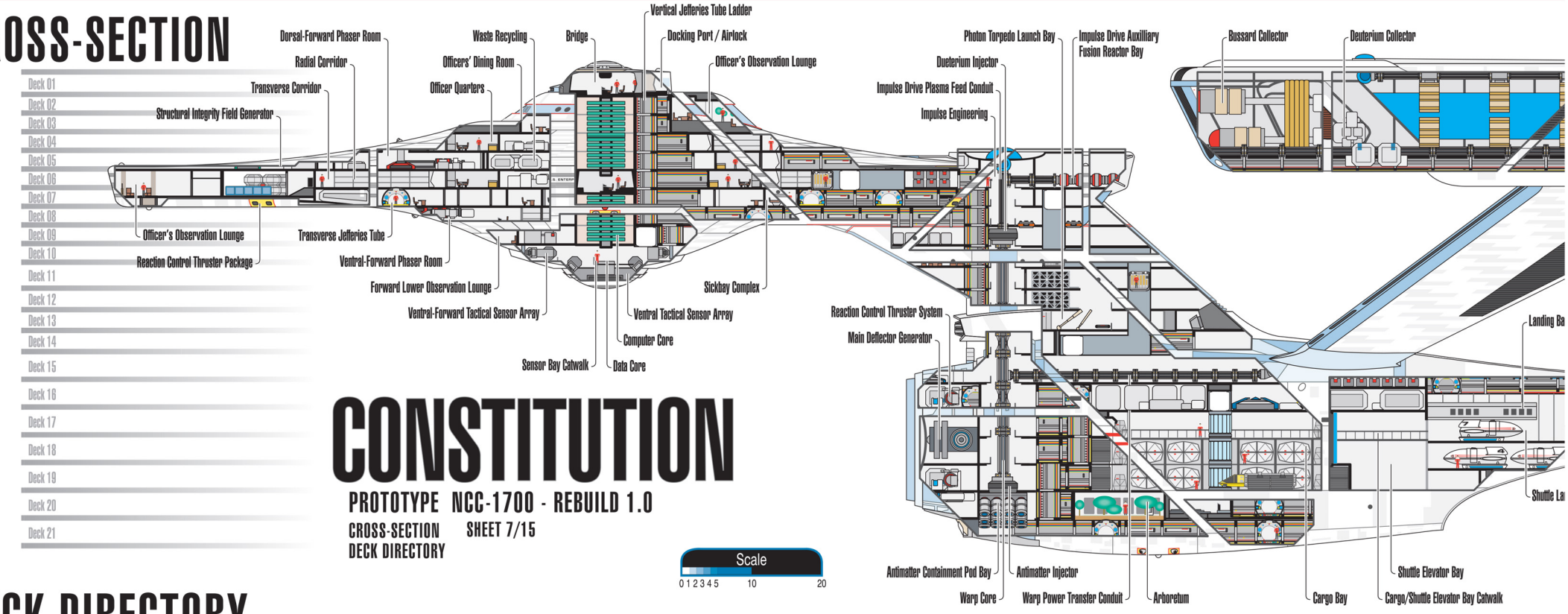


26-Personnel Emergency Transporter Room
- Stage
- Shielded Operator's Station

Scale
0 1 2 3 4 5 10 20

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CROSS-SECTION



CONSTITUTION

PROTOTYPE NCC-1700 - REBUILD 1.0

CROSS-SECTION SHEET 7/15
DECK DIRECTORY

Scale
0 1 2 3 4 5 10 20

DECK DIRECTORY

Deck 01

1	Bridge
1	Aft Airlock/Docking Port / Head
1	Dorsal Tactical Scanner / Sensor Suite

Deck 02

1	Combat Information Center
	- Flag Bridge
	- Communications Control & Cryptography
	- Fleet Movement Status Display
	- Data Management
	- Internal Systems Control
	- Ship's Systems Status Display
	- Damage Control
4	Head
1	Computer Core
1	Officers' Observation Lounge - High Bay

Deck 03

1	Officers' Dining Room
1	Officers' Galley
1	Reefer
1	Battery Compartment
1	Officers' Observation Lounge
1	Officers' Lounge
1	Computer Core
4	Head
1	Damage Control Locker

Deck 04

19	Officers' Quarters
3	Dorsal Phaser System Turret Tunnel
1	Life Support Compartment
1	Computer Core

Deck 05

3	Senior Officer's Quarters
5	Officer's Quarters
14	Junior Officer's Quarters
3	Dorsal Phaser System Turret Compartment - Main Level
6	Organic Synthesis Compartment
2	Inorganic Synthesis Compartment
4	Foodstuff Stasis Compartment
4	Defense Field Generator Compartment
3	Structural Integrity Field Generator Compartment
48	Escape Pod
1	Deuterium Tankage Toroid Bay
1	Computer Core
1	Waste Recycling Compartment

Deck 06

16	Officer's Quarters
8	Enlisted Bunkrooms (18 bunks each)
18	Enlisted Bunkrooms (12 bunks each)
16	Science Lab
1	General Cargo Bay - High Bay
2	Crew Mess/Lounge
2	Office Complex
1	Unassigned Compartment
2	Briefing Room
1	Chapel / Theatre
1	Forward Observation Lounge
1	Main Gangway & Retractable Sleeve
1	Recreation Lounge - Upper Level
1	Gymnasium - Upper Level
1	Impulse Engineering Complex
4	RCS Control Thruster Bay - Upper Level
1	Computer Core
1	EPS Relay / Battery Compartment

Deck 07

1	Forward Observation Lounge - Sub-Level / Battery Compartment
1	Security Complex
1	Sickbay Complex
86	Escape Pod
4	Cryogenic Fluid Tankage Bay
4	Water Tankage Bay
1	Bowling Alley - Main Level
1	Recreation Lounge - Main Level
1	Gymnasium - Main Level
1	Pool Machinery Compartment
4	Transporter Room
4	Landing Pad Bay
1	Impulse Drive Manifold Compartment
4	RCS Control Thruster Bay - Main Level
1	Computer Core

Deck 08

3	Ventral Phaser System Turret Compartment
2	Airlock / Docking Port & EVA Suit Locker Bay
1	Emergency Transporter Room
2	Transporter Transceiver Bay
1	Transporter Buffer / Plasma Relay / Battery Compartment
1	Computer Core

Deck 08 - Interconnecting Dorsal Hull

1	Vertical Main Turboshaft (Interconnecting Hull to Primary Hull)
1	Interconnecting Hull Horizontal Jefferies Tube

Deck 09

1	Ventral Observation Deck
1	Ship's Laundry Compartment
1	Computer Core

Deck 09

2	
1	

Deck 10

1	

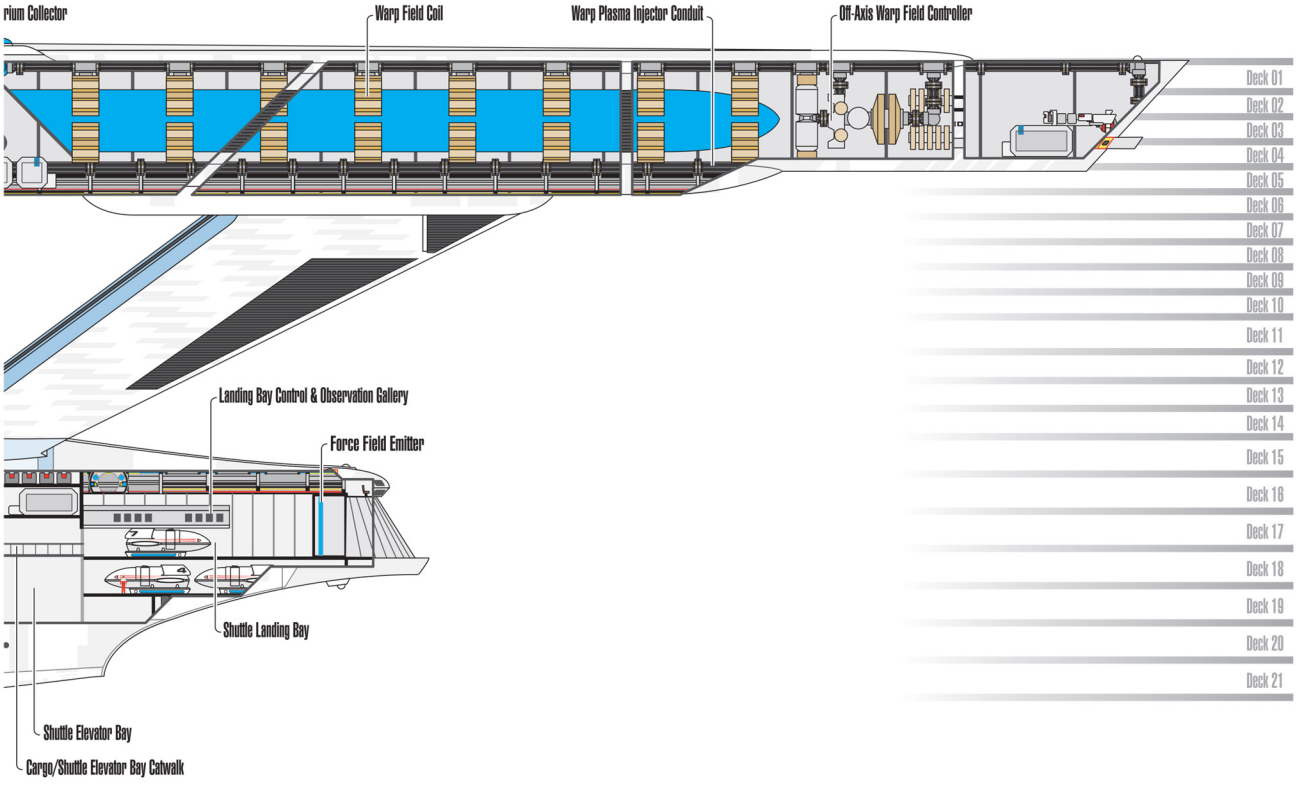
Deck 10

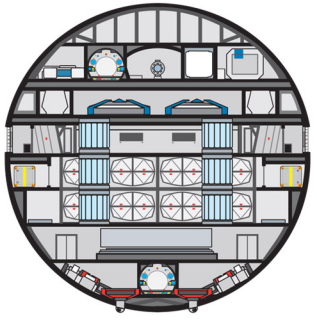
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Deck 11

1	
1	

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Cross-Section Through Cargo Bay
Forward Aspect

System Turret Compartment
g Port & EVA Suit Locker Bay
nsporter Room
nsceiver Bay
fer / Plasma Relay
rtment

Dorsal Hull
rboshaft
Hull to Primary Hull)
ll Horizontal Jefferies Tube

tion Deck
Compartment

Deck 09 - Interconnecting Dorsal Hull

2	Emergency Supply Locker
1	Deuterium Injector Compartment

Deck 10

1	Tactical Scanner Bay
	1 - Ventral Tactical Scanner / Sensor Suite
	4 - Lateral Tactical Scanner / Sensor Suite

Deck 10 - Interconnecting Dorsal Hull

1	Main Engineering - Warp Core
1	Interconnecting Hull Observation Lounge

Deck 11 - Interconnecting Dorsal Hull

1	Main Engineering - Warp Core
1	Photon Torpedo Magazine 2

Deck 12 - Interconnecting Dorsal Hull

1	Main Engineering - Warp Core
1	Photon Torpedo Magazine 1
1	Photon Torpedo Launcher Exhaust System

Deck 13

1	Main Engineering - Warp Core
1	Photon Torpedo Launch Bay
1	Photon Torpedo Launcher Exhaust System
2	Docking Port / Airlock
1	EVA Suit Locker

Deck 14

1	Main Engineering - Propulsion & Warp Core - Upper Level
1	Battery Compartment
1	Flush Vent System

Deck 15

1	Main Engineering - Propulsion & Warp Core - Main Level
1	Insulating Force Field Generator Compartment
1	Dilithium Chamber
1	Engineering Isolation Suit Locker
1	Deuterium Processing Compartment
1	Warp Core Collant tankage Compartment
2	Structural Integrity Field Generator Compartment
2	Dorsal/Aft Phaser System Turret Compartment
1	Shuttle Traffic Control Room

Nacelles & Pylons

1	Bussard Ionizing Beam Emitter Bay
1	Bussard Magnetic Field Generator / Collector Bay
1	Continuous Cycle Fractionator & Deuterium Chiller Bay
1	Warp Coil & Plasma Injector Bay
1	Off-Axis Field Coil Bay
1	RCS Control Thruster Bay

Deck 16

1	Main Engineering - Warp Core
1	RCS Control Thruster Bay
3	Battery Compartment
1	Landing Bay Atmospheric Processing Compartment
1	Defense Field Generator Compartment
2	Landing Bay Observation Gallery
1	Landing Bay - High-Bay
1	Engineering Fabrication
1	Turbolift Repair

Deck 17

1	Main Engineering - Warp Core
1	Deflector Generator Bay - High-Bay
2	Long Range Sensor Bay - High-Bay
1	Major Systems Diagnostics & Workshop
1	Subsystems Workshop Diagnostics & Workshop
2	Deuterium Tankage - High-Bay
2	Escape Pod
1	Quartermaster's Office
1	Briefing Room
2	Docking Port / Airlock
4	Lounge
1	Cargo Bay - High-Bay & Catwalk
1	Shuttle Elevator Bay - High-Bay & Catwalk
1	Landing Bay - Main Level
2	Aft Landing Bay Airlock

Deck 18

1	Main Engineering - Warp Core
1	Deflector Generator Bay - Main Level
2	Long Range Sensor Bay - Main Level
1	Main Damage Control
1	Shipfitting & Maintenance Workshop
2	Deuterium Tankage - Mid-Bay
12	Escape Pod
2	Lounge
1	Cargo Bay - Mid-Bay
1	Shuttle Elevator Bay - Main Level
1	Shuttle Parking Bay
1	Aft Photon Torpedo / Recorder Marker Buoy Launch Bay & Magazine

Deck 19

1	Main Engineering - Antimatter Injector
1	RCS Control Thruster Bay
1	Cryogenic Cooling System Compartment
2	Deuterium Tankage - Main Level
4	Escape Pod
2	Cargo Transporter Bay
1	Cargo Bay - Main Level
1	Shuttle Elevator Bay - Lower Level

Deck 20

1	Main Engineering - Antimatter Containment Bay
1	Transporter Buffer Bay
1	Insulating Force Field Generator Compartment
2	Head
1	Plasma Relay Compartment
1	Arboretum
1	Battery Compartment
1	Emergency Life Support Compartment
1	Arboretum Support Systems & Waste Recycling Compartment
1	Evacuation Transporter Room
1	Tractor Beam Emitter

Deck 21

1	Long Range Sensor Bay
2	Battery Compartment
2	Ventral Phaser System Turret Compartment
1	Subspace Radio / EM Radio / Transporter Transceiver Bay

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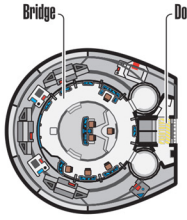
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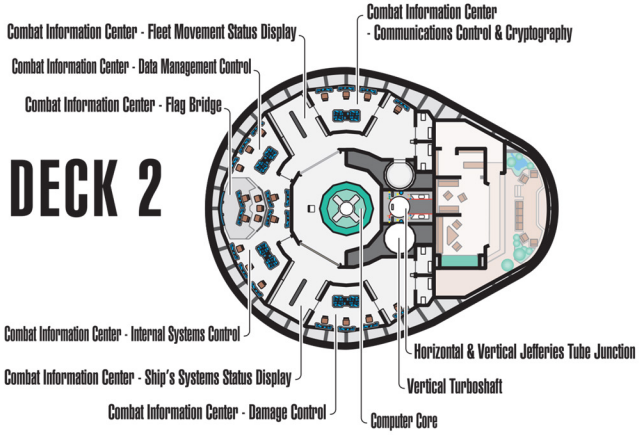
INTERNAL VIEWS SHEET 9/15

INTERNAL SYSTEMS

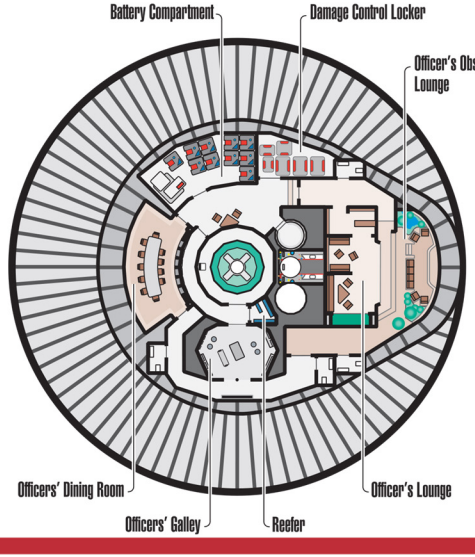
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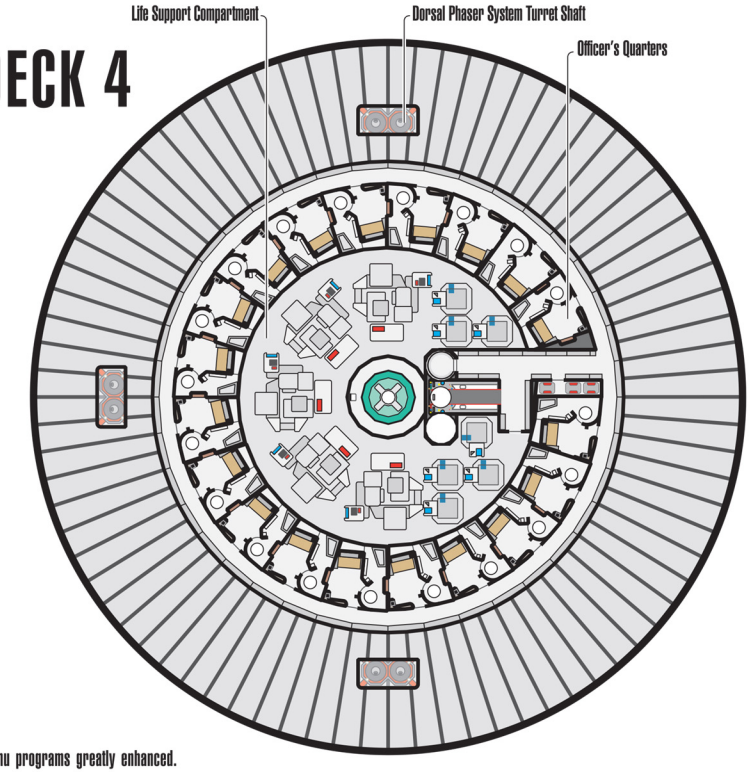
DECK 2



DECK 3



DECK 4



INTERNAL SYSTEMS

Section 3.01 Crew Facilities - Quarters
Enlisted quarters remain virtually untouched from the TOS (Technology-Original-Standard) version. Officer quarters have been simplified, with the offices being removed from the quarters in favour of true offices located elsewhere.

Section 3.02 Crew Facilities - Recreation
Recreation, Gymnasium, and Lounges have been expanded with the enlarged radius of the Primary Hull. The VIP Observation Lounge was relocated forward with the addition of retractable hull panels concealing three large viewing windows for added effect to visiting dignitaries.

Section 3.03 Crew Facilities - Dining
Furniture has been upgraded, systems have overhauled, and menu programs greatly enhanced.

Section 3.04 Crew Facilities - Arboretum
The original enclosed biohabits and display windows have been replaced with a park-like setting with winding paths, a waterfall and stream, and holographic sky.

Section 3.05 Crew Facilities - Laundry
Facilities have been largely left untouched, although systems have been overhauled.

Section 3.1 Science Facilities
All lab equipment and consoles have been replaced.

Section 3.2 Life Support
Life-Support systems were replaced with the uprated Type LS9986 during the Refit 1.3. Trauma Wards have been added to the Sickbay Complex.

Section 4.0 Shuttle Facilities
The Landing and Parking Bays are virtually untouched. Work Bees have been relocated to the Flight Deck.

Section 5.0 Cargo Facilities
The Cargo Bay is similar to that of the TOS (Technology-Original-Standard)Constitution-class. It connects to the Shuttle Elevator Wells via two sideways-rolling shutter doors - backed-up by force-field pressure curtains. This allows work bee cargo trains to fly directly from the Hangar Bay to the Cargo Bay. The Cargo Bay possesses two turboshafts running through it mid-bay, which access catwalks on the upper two levels as well as the main Cargo Deck. Cargo pods are moved from their storage quad niches to the deck and back via tractor/pressor beam 'crane' emitters, which run along tracks on the overhead. These are operated from the Quartmaster's Control Gallery on the upper forward bulkhead.

Section 6.1 Engineering - Warp Core
The revolutionary Type WC7445 Segmented Linear Warp Core replaced the original Tandem Warp Core. The new design places the Deuterium Injector midway up the Interconnecting Hull (which was redesigned to hold it), and is capable of 150% more output at nominal levels. The Antimatter processor/Containment Pods Assembly was replaced with a near-identical suite - utilizing better materials and systems.

Section 6.2 Engineering - Warp Drive Nacelles and Support Pylons
Both the Type WDN7675E Warp Drive Nacelles and WDS7633B Support Pylons are new installations. Visibly different on the exterior (reflecting changes in radiation shielding and component safeguarding), the interior does not represent a radical departure from previous designs - except insofar as better components (superior manufacturing specifications and materials) were created to make use of the higher speeds expected to be made available from the new Warp Core's output.

Section 6.3 Engineering - Impulse Drive
The Impulse Drive Assembly was removed to make room for the redesigned integral Type IDA2234J. The new design has increased thrust, more dependable standby fusion reactors, and improved reverse thrust. Instead of the previous mechanically-hinged baffles, force-field generated 'baffle plates' aft of the manifolds re-direct the impulse exhaust plasma forward (over and under the Primary Hull) thrust.

Scale
0 1 2 3 4 5 10 20

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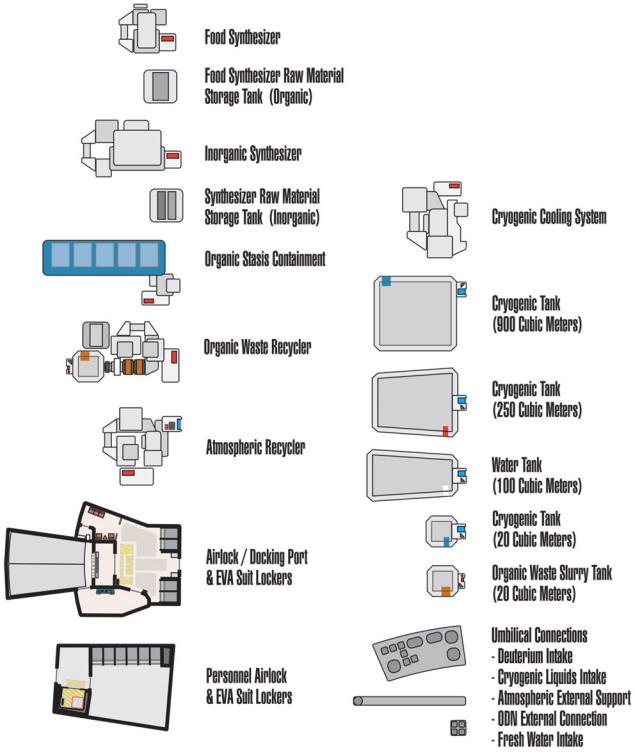
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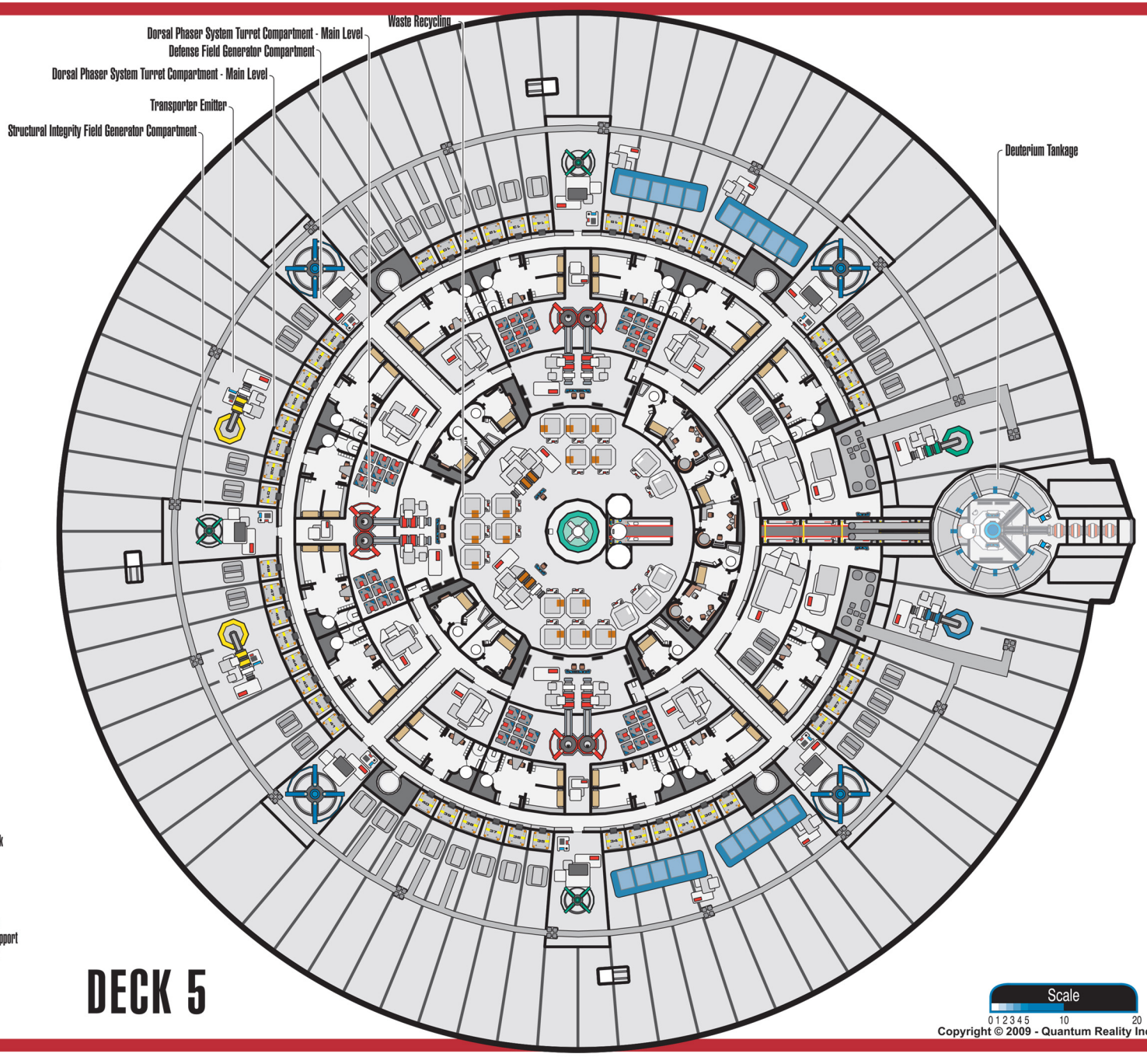
INTERNAL VIEWS SHEET 10/15

SYMBOL CHART

SYMBOL CHART

LIFE SUPPORT & FLUID/GAS TANKAGE





DECK 5

Scale

0 1 2 3 4 5 10 20

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INTERNAL VIEWS SHEET 11/15

SYMBOL CHART

SYMBOL CHART

AUXILLIARY ENGINEERING - MISC. SYSTEMS

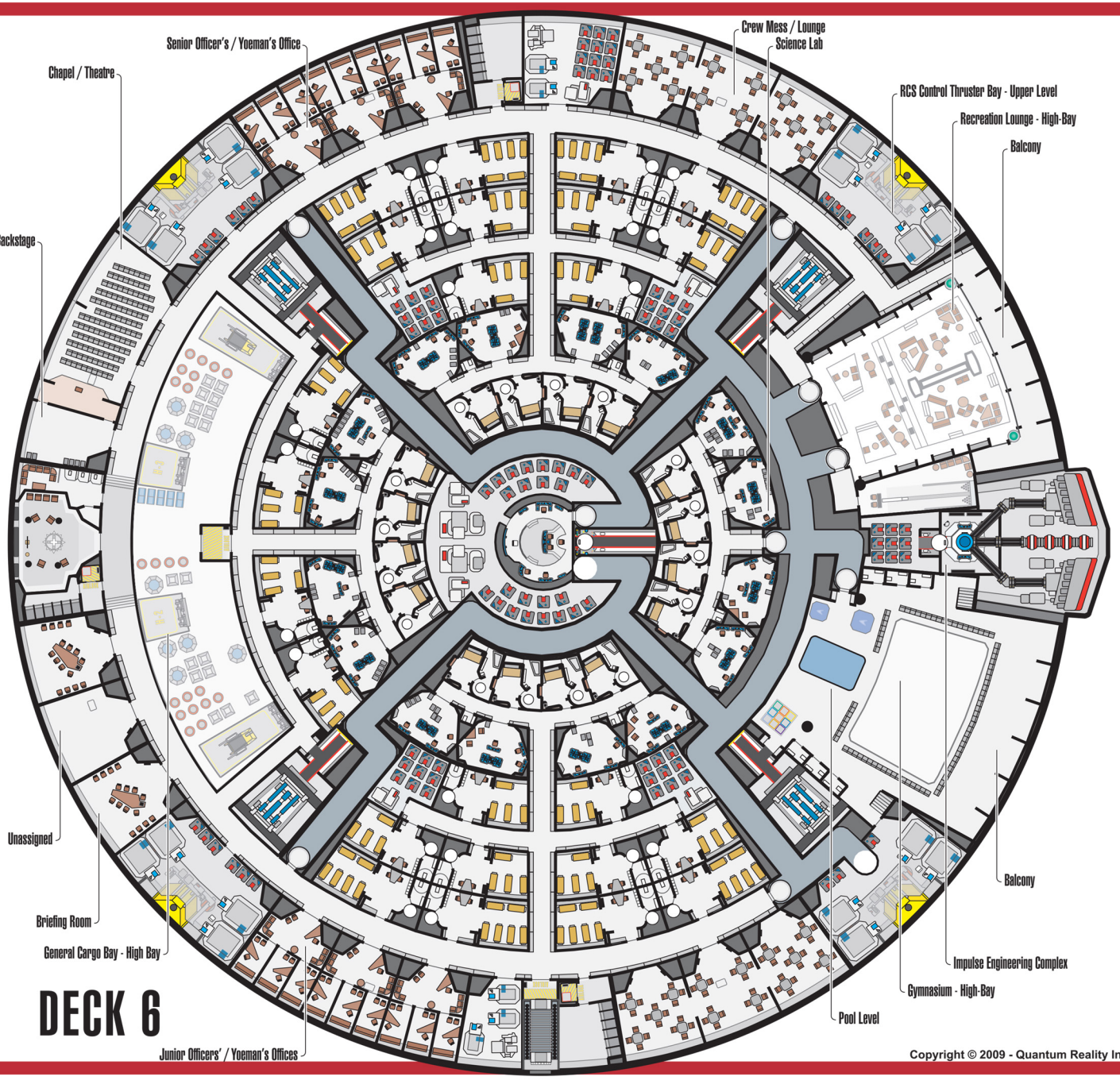
- Horizontal Jefferies Tube
- Vertical/Horizontal Jefferies Tube Junction
- Vertical Jefferies Tube
- Diagonal Jefferies Tube
- Vertical Turboshaft
- Horizontal Turboshaft
- Turbolift Station
- Hull-to-Hull Explosive Bolt Connection
- One Person Lift
- Landing Pad & Armature (Retracted)
- Shuttle Elevator

Scale

0 1 2 3 4 5 10 20

DEFENSE SYSTEMS

- Phaser Emitter Turrets
- Phaser Firing Chambers
- Photon Torpedo Casing
- Photon Torpedo Launch Bay & Tube
- Photon Torpedo Magazine
- Force-field / Deflector Screen Generator
- Destruct Charge



DECK 6

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INTERNAL VIEWS SHEET 12/15

SYMBOL CHART

SYMBOL CHART

Damage-Control Containers

Emergency Supply Containers

Misc. Shipwide ODN Distribution Areas

Scale

0 1 2 3 4 5 10 20

COMMUNICATIONS & TRANSPORTER SYSTEMS

- Subspace Radio Transceiver
- EM Radio Transceiver
- Transporter Transceiver
- Transporter Buffer
- Transporter Pad (6-personnel)
- Transporter Pad (Emergency 26-personnel)
- Transporter Pad (Cargo)

INFORMATION SYSTEMS

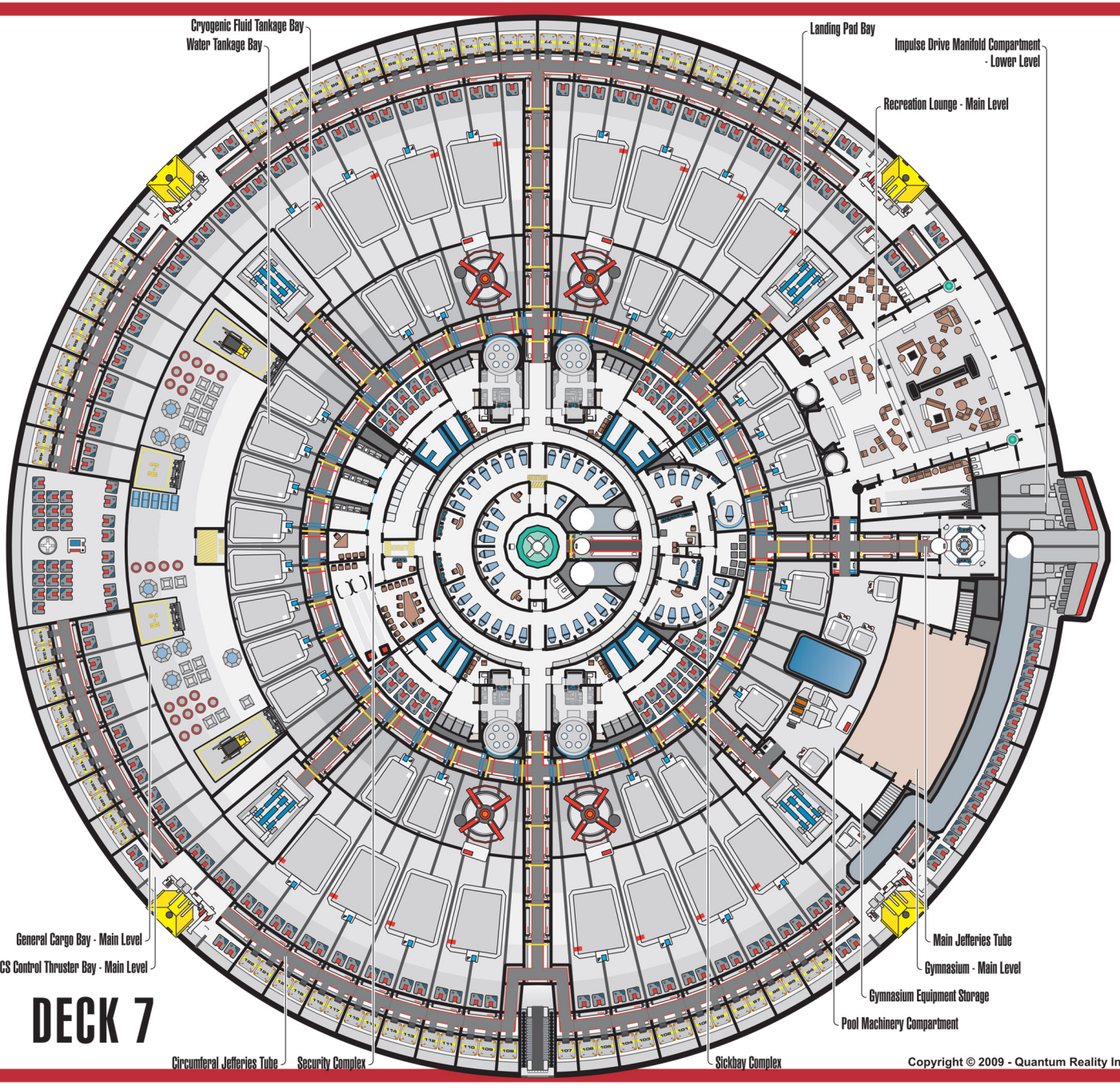
- Computer Core
- Navigation Sensor Array
- Lateral Tactical Sensor Array
- Ventral Tactical Sensor Array
- Long Range Sensor Array

GRAVITONIC SYSTEMS

- Deflector Generator
- Engineering Insulating Force Field Generator
- Structural Integrity Field Generator
- Tractor Beam
  - Emitter
  - Extension Track
  - Aiming Gimbal
  - Hatch

MAIN ENGINEERING - ELECTRO-PLASMA SYSTEMS

- EPS Relay
- EPS Distribution Node
- Cold Fusion Battery Bank



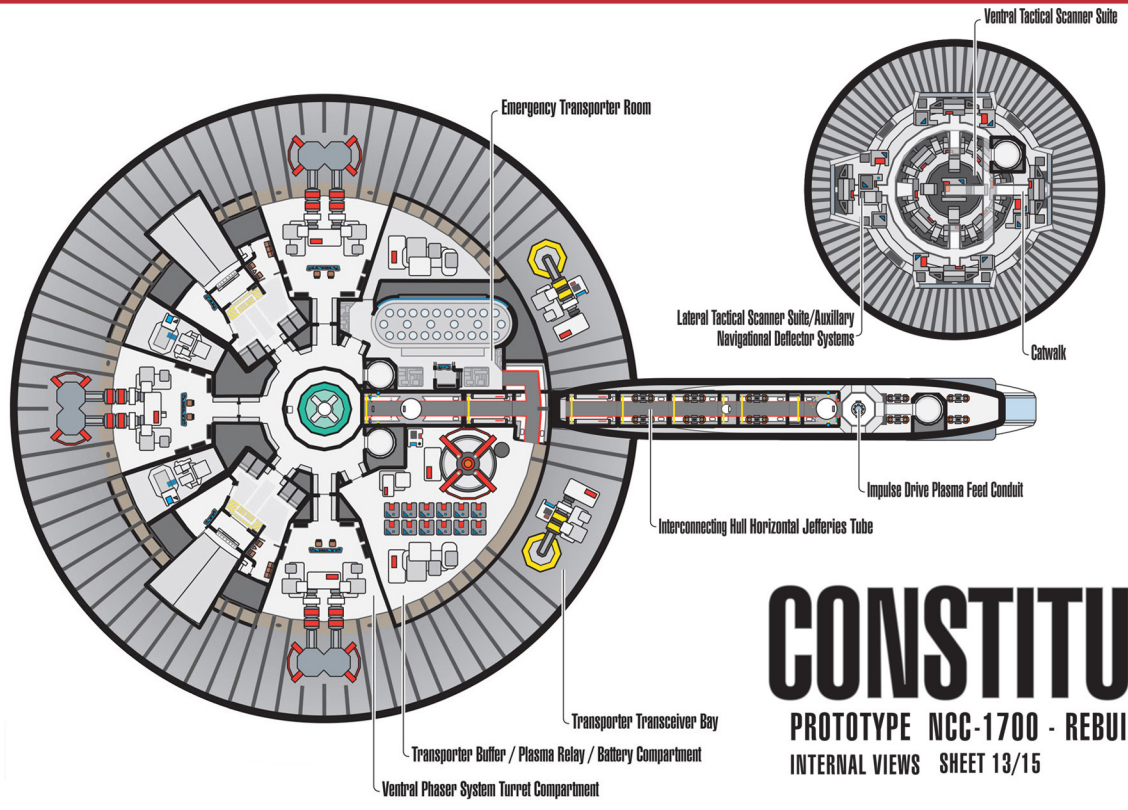
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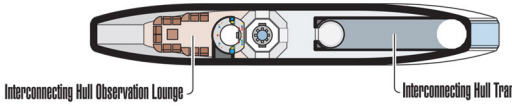
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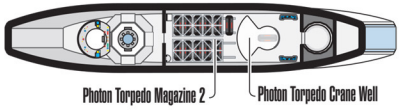
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INTERNAL VIEWS SHEET 13/15

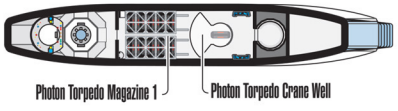




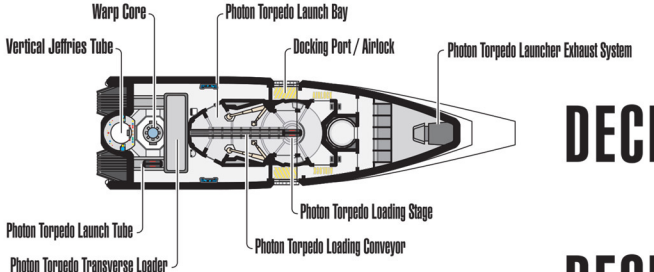
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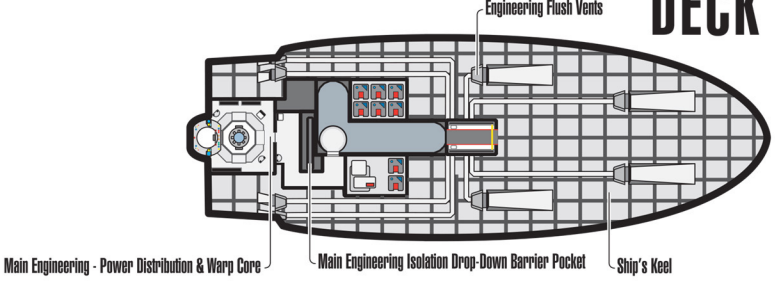
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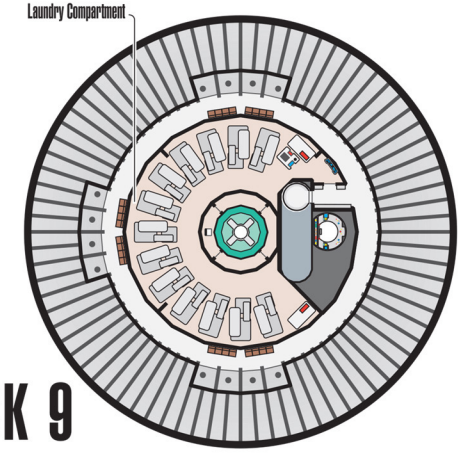
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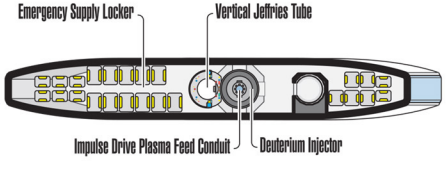
DECK 13



DECK 14



DECK 9





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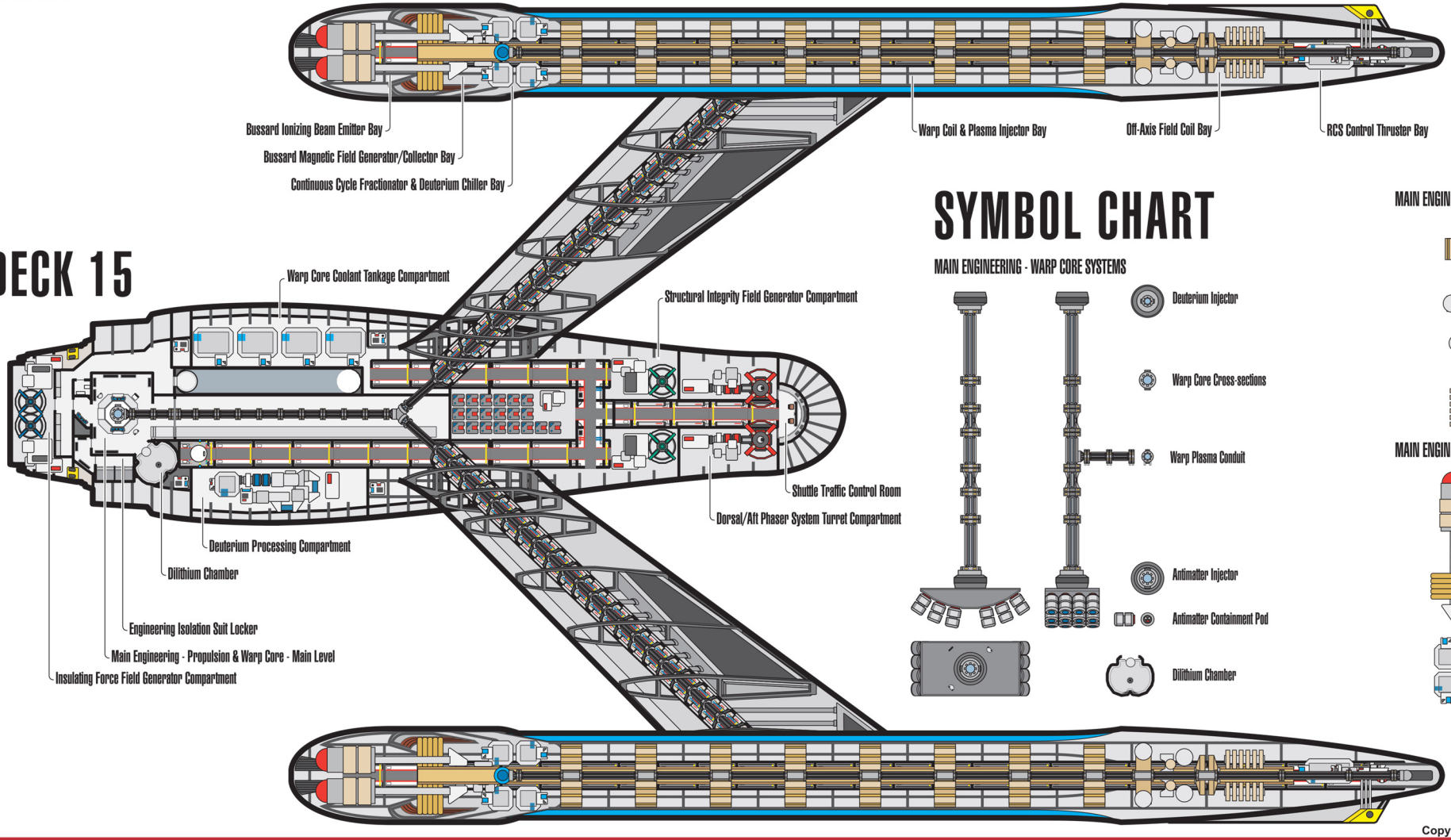
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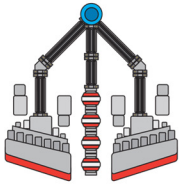
INTERNAL VIEWS SHEET 14/15

SYMBOL CHART

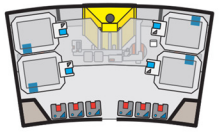
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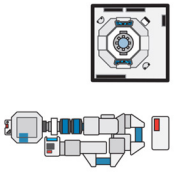
MAIN ENGINEERING - IMPULSE DRIVE SYSTEMS



MAIN ENGINEERING - REACTION CONTROL THRUSTER SYSTEMS



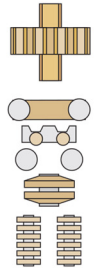
MAIN ENGINEERING - WARP CORE SYSTEMS



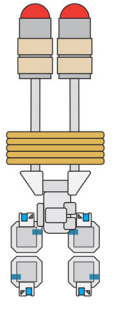
SYMBOL CHART

MAIN ENGINEERING - WARP CORE SYSTEMS

MAIN ENGINEERING - WARP DRIVE SYSTEMS



MAIN ENGINEERING - BUSSARD COLLECTION SYSTEMS

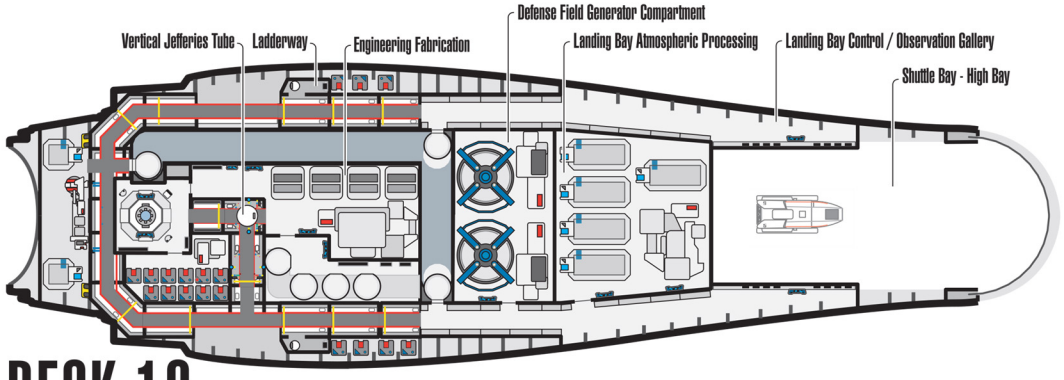


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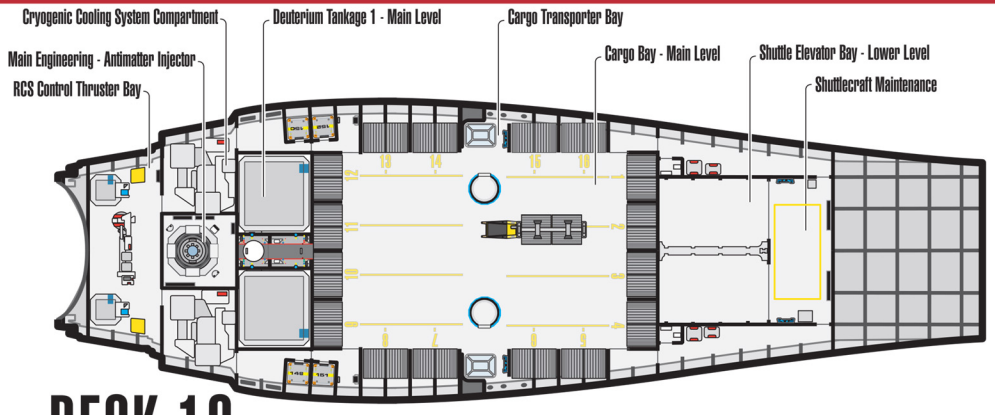
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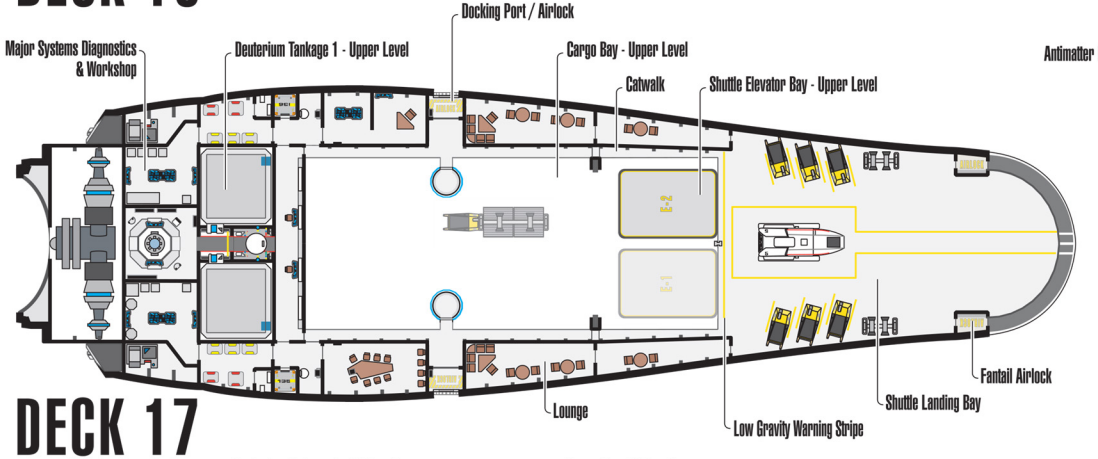
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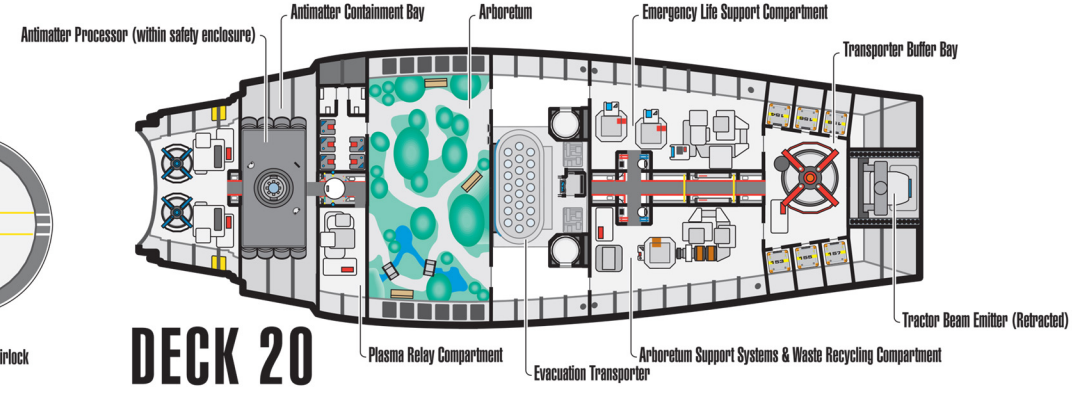
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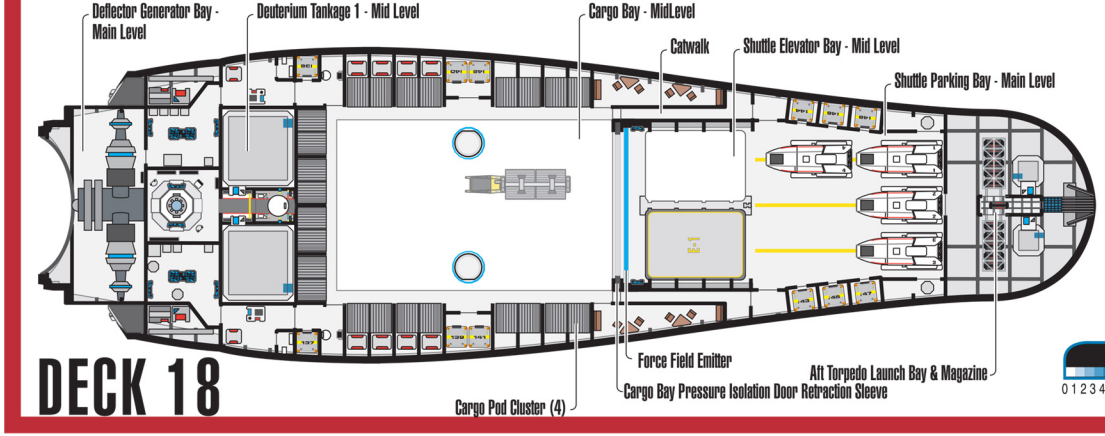
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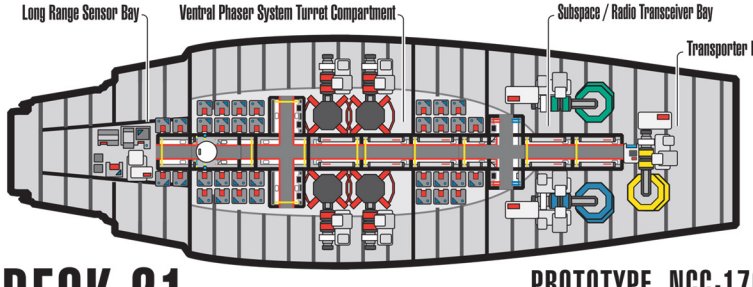
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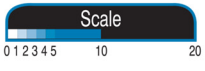
DECK 20



DECK 18



DECK 21



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INTERNAL VIEWS SHEET 15/15