Radish, TL9 Irish-class Space Battleship



			Tons	Price (MCr.)
Hull	30,000 dtons	Standard non-gravity hull	30,000	750
		TL7 radiation shielding	-	750
		15,000 Hull		
Armor	TL7 Titanium Steel	5 armor	3,750	93.75
Maneuver Drive	TL7+2 Reaction	Thrust 3, Fuel efficient (x2)	1,800	450
Power Plant	TL8 Fusion	+8000 power	800	400
Bridge	Command Bridge, TL9 holographic controls	+1 tactics (naval), +2 initiative	80	281.25
Computer	TL9 Core/40- fib	Immune EMP	-	67.5
	5x TL9 Computer/10- fib	Immune EMP	-	1.2
Electronics	TL9 'Civilian'	-2 sensor, 1 power	1	3
Weapons	6x TL8 2- barrel main beam cannons* (12 large mass driver bays)	Short, 6x 2DD+(1x2) each, 480 power, 60 hardpoints	6000	1,440
400 Hardpoints	TL7 VLMS (5 large missile bays)	4D each, smart, 250 power, 25 hardpoints, fires 120 missile/bay each round, holds 1,440 missile/bay	2500	625
	20x TL8 Double beam turret**	Short, 2D each, 180 power	20	30
Fuel	9,500			

Cargo	1,629			
160 staterooms (100			640	320
are double-occupancy)			0.0	
10 emergency low-berth		40 passengers, 10 power	10	10
Extras	Armored bulkhead (computer)	-1 severity	-	-
	Armored bulkhead (bridge)	-1 severity	8	1.6
	Armory	Equipment for 50 marines	10	2.5
	Barracks	50 marines. Life support 25,000/month	100	5
	4x Briefing Rooms	DM+1 tactics (military)	16	2
	Brig	Up to 24 prisoners, life support 4,000/month	16	1
	Fuel Processor	Process 400 dton/day, 40 power	20	1
	Full Hanger	Up to 1,000 dtons of small craft	2,000	400
	10x Heavy Grappling Arms	Manipulate 10dtons each	60	30
	TL9 launch tubes	Launch up to 30dton small craft, 1 round to load, launch 10 craft/turn, 300 power	300	150
	10x TL7 Loading Belt	10 power	10	0.03
	TL8 Library	+1 EDU training	4	4
	Medical Bay	+1 Medic, treat 20 patients	16	8
	Recovery Deck	Recover 1 30 dton small craft/round, 300 power	300	150
	Repair Drones	Engineer 1 skill	400	80
	UNREP system	Transfer 200 dtons/hr, 10 power	10	5
Software				
	TL9 Evade/1	10 BW	-	1
	TL9 Fire Control/1	+1 to 1 att, 5 BW	-	2
	TL9 Launch Solution/1	+1 to all missiles, 5 BW	-	10
	TL8 Library		-	-
	TL8 Maneuver/0		-	-
	TL9 Point Defense/1	Close, 12 BW	-	8
Maintenance (monthly)				0.5348
Life Support (monthly)				0.389
Salaries (monthly)				0.333 minimum
Total Tonnage and Cost		1	30,000	6082.83

System	Power Requirement
Basic	6,000
Maneuver	0

Weapons	910
Electronics	1
Other Systems	670
Total: 7,581	

Length: 400m Width: 125m Height: 80m

Minimum Recommended (2e HG) Crew: 1 captain 3 pilots 25 engineers 20 maintenance staff 1 medic 74 gunnery crew 10 administrators 8 officers

*Beam weaponry, through the discovery of Minovsky particles, occurs in the UC setting long before FTL drives appear. Treat them as Mass Drivers, except that they do not require ammunition. Modified rule: multi-mounted weapons use the same rules for multiple weapons in the same mount as turrets do.

**Pulse laser turrets have too long a range to fit into UC. Unfortunately, HG2e does not have sufficient rules in its Primitive/Advanced spacecraft chapter to better represent this. Instead, treat as pulse lasers except reduce their range to short and -1 to TL.

Notes:

The Irish-class' reactor requires 80 dtons of fuel per month. At her current fuel allocation the Irish's efficient reaction drives can perform at an average 1g for up to 25.3 hours or at a combat speed of 3g for up to 8.4 hours.

In Traveller terms this is pretty terrible, but as a real world comparison this is actually very robust, with a(n) (ideal) delta-v of 892 km/s, which is more than 2 or 3 times necessary for interplanetary missions out to the Jovians. In the Gundam fiction this value is maybe a bit higher than what we observe, but given that the Irish-class was considered very fast for her size (it's an intentional homage to the fast Iowa-class battleships), it may be appropriate.

History:

The Irish-class battleship was a high speed battleship with a large mobile suit contingent developed by Anaheim Electronics after the end of the One Year War. Realizing that the Salamis-Kai Cruiser would no longer be sufficient in inevitable upcoming conflicts, especially after the failed 0083 refit, work began on a new battleship that incorporated mobile suit deployment as a primary strategy. The result was the Irishclass, first deployed in UC 0087, which served with distinction during the Gryps Conflict. It remained in service through the UC 0120s and formed the basis of many future battleship designs going forward.

Although some contemporaneous ships were equipped with a Minvosky Craft system, allowing for descent through Earth's atmosphere and 'float' on a cushion of Minovsky particles, the Irish-class remained a space-based battleship.

Out-of-Context Notes:

The UC-era is roughly TL8 to TL9. Note that the default assumptions for many real robot series, as having their roots in 70s super robot shows, is that some technologies, particularly artificial intelligence and antimatter power plants, are developed long BEFORE jump drive technology.

Because of the lower technological level of early UC-ships, they tend to be quite small as well. Even large battleships, such as the Irish-class, generally displaced no more than 30 or 40,000 dtons. Traveller ships typically require large fuel reserves for their Jump Drives. These ships, having no jump drives, still require very large fuel reserves because they typically have very weak or non-existent gravitic drives and thus rely heavily on reaction drives.

The discovery of Minovsky particles underpins the fiction in UC Gundam. Generated by the Minovsky-Ionesco Fusion reactors aboard ships and stored until combat, these particles scatters waves throughout the electromagnetic spectrum. At lower concentrations it affects predominately lower frequencies (VHF, megahertz range), with increasing frequencies affected at higher concentrations, with radio, microwaves, and eventually even infrared and visible light distorted at combat-level concentrations.

Importantly, the interference of the particles renders long-range ship-to-ship combat relatively obsolete. Although high concentrations of particle distribution is impossible in space, even a small distortion makes targeting solutions inaccurate across the vast distances of space.

Game mechanics for Minovsky particles:

Of course, in most Gundam settings, even those in UC, all of this is just glossed over to get to the pew pewing. If and when it's actually important, append the following to p. 156 of 2e Core:

- when a ship releases Minovsky particles (free action as part of its Maneuver step) DM penalty to hit it at very long and extreme ranges are doubled (to -8 and -12, from -4 and -6, respectively).