

## S 107 Trafalgar - 1994

### United Kingdom

Type: SSN - Nuclear Powered Attack

Submarine

Max Depth: -300 m

Max Speed: 32 kt

Commissioned: 1994

Length: 85.4 m

Beam: 9.8 m

Draft: 9.5 m

Crew: 97

Displacement: 4740 t

Displacement Full: 5208 t

Propulsion: 1x Rolls-Royce PWR.1 Nuclear

Reactor

Sensors / EW:

- Type 2074 [Type 2076 Suite] - (Improved Type 2020EX) Hull Sonar, Active/Passive, Hull Sonar, Active/Passive Search & Track, Max range: 74.1 km

- Type 2019 [DUUG 2] - (Improved Type 2020EX) Acoustic Intercept (Active Sonar Warning), Acoustic Intercept, Max range: 66.7 km

- Type 2007AA - (1972) Hull Sonar, Passive-Only, Hull Sonar, Passive-Only Ranging Flank Array Search & Track, Max range: 74.1 km

- UAP-1 - (Trafalgar) ESM, ELINT w/ OTH Targeting, Max range: 926 km

- Type 1007 - (1988, KH 1007) Radar, Radar, Surface Search & Navigation, Max range: 177.8 km

- CXA(1) [Telegon 6] - (1988, KH 1007) ESM, HF/DF, Max range: 926 km

- Type 2046 - (1988, FMS 13, Modified Type 2031, Type 2024/2026 Replacement) TASS, Passive-Only Towed Array Sonar System, TASS, Passive-Only Towed Array Sonar System, Max range: 185.2 km

- Type 2077 Parian - (1988, FMS 13, Modified Type 2031, Type 2024/2026 Replacement) Hull Sonar, Active-Only, Hull Sonar, Active-Only Short-Range Sidescan Mapping, High-Definition LPI, Max range: 1.1 km

- Generic Submarine Periscope, Optical - (1980s, 1.5x/8x Zoom) Visual, Visual, Surveillance Periscope, Max range: 41.7 km

- Generic Submarine Periscope, LLTV - (1980s/1990s, Gen 2, 1.5x/4x Zoom) Visual, LLTV, Surveillance & Navigation Camera, Max range: 41.7 km

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Weapons / Loadouts:

- UGM-84B Harpoon IA - (1983) Guided Weapon. Surface Max: 120.4 km.

- Mk24 Tigerfish Mod 2 - (1987, Dual) Torpedo. Surface Max: 7.4 km. Subsurface Max: 7.4 km.

- Type 2071 ADC Mk2 Mod 1 - Decoy (Expendable). Subsurface Max: 1.9 km.

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OVERVIEW: The TRAFALGAR is a nuclear-powered attack submarine (SSN).

DETAILS: The TRAFALGAR class are primarily intended for the anti-submarine role. Designed to be considerably quieter than previous submarines. The pressure hull uses anechoic coating. The class also incorporates retractable hydroplanes and strengthened fins for under ice operations.

### Specifications:

Displacement: 4,700 (surfaced); 4,208 tons submerged.

Speed: 32 knts (submerged)

Engineering: 1 pressurized water-cooled reactor; 1 shaft

Diving Depth: 300+ meters

Range:

Complement: 97

Hulls built: 7

Period of Service: 1983-present

NOTES: Units in class: TRAFALGAR (S 107); TURBULENT (S 87); TIRELESS (S 88); TORBAY (S 90); TRENCHANT (S 91); TALENT (S 92); TRIUMPH (S 93)

SOURCES: Moore, John Evelyn. Jane's Fighting Ships 1991-92. London: Jane's Pub, 1987, pg. 675 ;