

**ATTACHMENT J-38
TECHNICAL FEASIBILITY FACTOR REQUIREMENTS AND STANDARDS**

The following tables identify the requirements and associated standards for the Technical Feasibility factor/subfactor/criteria combination that shall be evaluated by the Technical Evaluation Team. These requirements and standards are imported directly into the Evaluator’s Analysis Worksheet by EZSource for each factor/subfactor/criteria combination.

A. Technical Feasibility Factor.

1. SPS Compliance Subfactor 1.

a. Functional Capabilities Criteria

Requirement	Standard
SPS 3.1 Functional Capabilities	Capabilities in SPS are met by the entire IDS (individual asset(s) may not necessarily be capable of meeting all requirements).
SPS 3.1.1 IDS Demand	Demand profiles of deepwater missions defined in the MSMP are met.
SPS 3.1.2 Margins	IDS assets have sufficient margins to meet SPS requirements for the life cycle of the asset.

b. Information Exchange Capabilities Criteria

Requirement	Standard
SPS 3.3.1 Exchange Information with Other CG Assets	Simultaneous real time voice, video and data communications are maintained between all Coast Guard assets in the IDS.
SPS 3.3.2 Embarked Staff	Command and control support for embarked staff is provided without negative impact on any unit’s independent communication, command and control functions.
SPS 3.3.3 Information Exchange with External Organizations	Simultaneous real time voice, video and data communications are maintained with DOD, OGA, State & Local government, NATO, similar coalitions & potential partners, maritime public, and the private sector in accordance with applicable standards.
SPS 3.3.4 Dissemination	Processed intelligence is disseminated to operational units and the general public as required.
SPS 3.3.5 Protect Information Exchanges at Appropriate Level of Security	Secure and non-secure information exchanges are properly handled and safeguarded up to a level of security that ensures interoperability with U.S. and allied forces.

c. Information Support Capabilities Criteria

Requirement	Standard
SPS 3.4.1 Access Data Bases and Data	USCG, Other Government Agencies, and national information and informational databases needed to accomplish missions are accessible.
SPS 3.4.1.1 Target Information	Target information to include course, speed, position, & description is accessible. Age and accuracy of information is also accessible.
SPS 3.4.2 Store and Archive Information	Corporate and locally maintained information is stored and archived.
SPS 3.4.3 Preserve Data Integrity	Loss, corruption or conflict of stored information is prevented.

SPS 3.4.4 Preserve Data Security	Network intrusion is prevented, detected and counteracted.
SPS 3.4.5 OPSEC	Operations Security measures are implemented.
SPS 3.4.6 OPDEC	Deception Operations are conducted.

d. Prosecution Criteria

Requirement	Standard
SPS 3.6.1 Enforcement	Compliance of cooperative, uncooperative, and evasive targets are compelled using minimum force, including effective non-lethal means.
SPS 3.6.2 Response Time (Distress)	Arrive on-scene and render assistance to 90% of distress incidents within 2 hours.
SPS 3.6.3 Response Time (NERO)	Respond to National Emergency Response Operations within 48 hours.
SPS 3.6.4 Intercept and Interdict	Intercept and interdict Targets of Interest anywhere in the Deepwater Area of Responsibility.
SPS 3.6.5 Conduct Boardings	Safely and effectively launch and recover multiple, simultaneous boarding teams of up to 8 persons with 150 pounds of equipment to and from vessels at sea.
SPS 3.6.5.1 Pathogens	Boarding teams and dispatching assets are protected from food, water, air, and blood-borne pathogens on-board target vessels.
SPS 3.6.5.2 Hazardous Atmospheres	Vessel compartments containing hazardous or potential hazardous atmospheres are detected.
SPS 3.6.6 Command Presence	A command presence/cover is provided for multiple simultaneous boarding teams.
SPS 3.6.7 Transfers	Transfers of up to 12 personnel and 150 pounds of equipment, including personnel unfamiliar with at-sea evolutions are conducted.
SPS 3.6.8 Escort	Vessels of any size may be escorted.
SPS 3.6.9 Towing	Vessels up to 200 feet and/or 3000 tons, and equal in size of the towing vessel can be towed.
SPS 3.6.10 Transport	Mission specific equipment of cargo loads of up to 3,000 cubic feet and 35,000 pounds (palletized); or 1,600 cubic feet and 25,000 pounds (non-palletized) and 20 Coast Guard personnel is rapidly transported to the scene. Locations for transporting equipment includes crossing international boundaries and/or use of facilities damaged or impacted by natural disasters.
SPS 3.6.11 Port Security	Safe and efficient operation of all vessels transiting harbors in the Deepwater Area of Responsibility, including protection of port assets and coastal patrols to enforce security perimeters during National Emergency Response Operations is provided.
SPS 3.6.12 HAZMAT Response Capabilities	Level A Hazardous Material response up to 200 nautical miles offshore is provided in accordance with 29 CFR 1910.120 Appendix B.
SPS 3.6.13 Divert or Seize Vessels	Vessels are diverted or seized as required. Custody crews and security for seized vessels are provided.
SPS 3.6.14 ESM/ECM	ESM/ECM operations in support of own unit are conducted.
SPS 3.6.15 EMCON	EMCON operations in support of own unit are conducted.
SPS 3.6.16 Hazards to Navigation	Hazards to navigation are marked, removed, sunk or destroyed.

e. National Security Cutter Criteria

Requirement	Standard
SPS 3.8.1 General	A class of national security cutters is included in the IDS that operates in the low threat environment.
SPS 3.8.1.1.1 Commercial Shipping	Stationing on, maneuvering around, and escort of commercial shipping at operational speeds of 28 knots sustained is provided.
SPS 3.8.1.1.2 CVN Flight	Operational speed necessary for taking and maintaining station on a

Operations	maneuvering Nuclear Powered Carrier conducting flight operations is provided.
SPS 3.8.1.2 Endurance	Remain on station for 60 days and conducting extended operations over 12,000 nautical miles is provided.
SPS 3.8.1.3 Replenishment	Continuous alongside underway Replenishment of fuel and water, and Vertical Replenishment of munitions and provisions capability is provided with an embarked helicopter on deck or in hangar.
SPS 3.8.1.4 Survivability	U.S. Navy Level I Survivability Standards are met with the exception of shock hardening.
SPS 3.8.1.5 Damage Stability	U.S. Navy Damage Stability criteria are met.
SPS 3.8.2.1 Detect and Track	Surface targets are detected, tracked, identified and intercepted with probability of detection of at least 90%.
SPS 3.8.2.1.1 Detect and Track for Assigned Forces	Decision support capabilities are provided to plan and direct the detect & track function for assigned forces.
SPS 3.8.2.2 Board and Seize	NSC allows Coast Guard personnel to board, inspect, interdict, report, and seize surface vessels.
SPS 3.8.2.2.1 Warning Shots / Disabling Fire	Warning and disabling shot capabilities against targets of interest is provided in the course of interdictions.
SPS 3.8.2.3 Boat Transport, Deliver, and Retrieve	NSC transports, delivers, and retrieves Coast Guard Port Security Boats in a harbor or port environment.
SPS 3.8.2.4 Surface Threats	NSC allows Coast Guard personnel to plan, direct, and engage surface threats, independently or in cooperation with other forces achieving mission kill on high speed patrol craft beyond small and intermediate caliber gunfire range.
SPS 3.8.2.5 Own-ship Defense	NSC allows CG personnel to plan, provide and direct own ship defense and defense of escorted units.
SPS 3.8.2.6 Avoid Surface Attack	NSC has the ability to disengage, evade or avoid surface attack by minimizing radar cross section, employing ESM, soft-kill measures, evasion techniques, and EMCON procedures.
SPS 3.8.2.6.1 Avoid Surface Attack For Assigned Forces	NSC has the ability to disengage, evade or avoid surface attack for assigned forces by minimizing radar cross section, employing ESM, soft-kill measures, evasion techniques, and EMCON procedures.
SPS 3.8.2.7 Launch and Recover Aircraft	NSC has the ability to launch, recover and fuel (on-deck and in-flight) Navy and NATO Vertical Take-off and Landing VTOL aircraft, including armed helicopters.
SPS 3.8.2.8 Control Aircraft	NSC has the ability to control and direct aircraft.
SPS 3.8.3.1 Air Targets	NSC has the ability to detect with a probability of detection of at least 90% and track air targets & exchange track info with other naval forces.
SPS 3.8.3.2 Hard-Kill Cruise Missiles	NSC is capable of performing self defense by employing hard-kill capability against anti-ship cruise missiles.
SPS 3.8.3.3 Soft-Kill Cruise Missiles	NSC is capable of performing self defense by minimizing radar cross section and employing soft-kill capabilities against anti-ship cruise missiles.
SPS 3.8.4.1 Launch and Recover Aircraft	NSC has the ability to launch, recover and fuel (on-deck and in-flight) Navy and NATO Vertical Take-off and Landing VTOL aircraft, including armed helicopters.
SPS 3.8.4.2 Control Aircraft	NSC has the ability to control and direct aircraft.
SPS 3.8.4.3 Vulnerability to Magnetic Mines	NSC maintains reduced vulnerability to magnetic mines.
SPS 3.8.5.1 Emitters	Passive mode search, intercept and direction find (DF) emitters to identify surface, air, and subsurface contacts and provided for timely defensive or evasion/avoidance actions.
SPS 3.8.5.2 Threat Library	An updated threat library is maintained.
SPS 3.8.5.3 OPSEC	Planning, direction, and implementation of operations security measures for own ship and assigned forces including EMCON is accomplished.
SPS 3.8.6.1 IT-21	Frigate-like IT-21 standards to support joint tactical warfighting are met.
SPS 3.8.6.2 Functions	NSC is capable of functioning as Coastal Sea Control Commander, Maritime

	Interception Commander and Search and Rescue On-Scene Coordinator.
SPS 3.8.6.3 Support	Command and Control facilities and support for own ship and embarked Harbor Defense Commander or Coastal Sea Control Commander are provided.
SPS 3.8.6.4 Interoperability	Real-time, two-way voice and data communications interoperability and relay capability with joint and allied forces is maintained.
SPS 3.8.6.5 Data Exchange	NSC is capable of exchanging data to assist in identifying surface and air contacts.
SPS 3.8.6.6 ESM	NSC supports, conducts, and shares ESM intelligence information collection with joint and allied forces.
SPS 3.8.6.7 Links	Track data is exchanged with joint and allied forces using common Navy links.

2. SPS Compliance Subfactor 2.

a. Information Collection & Recording Capabilities Criteria

Requirement	Standard
SPS 3.2.1 Collect and Verify Mission Triggers	Mission triggers are collected, verified, and validated to determine if legitimate or hoax.
SPS 3.2.1.1 Distress Calls	All properly broadcast distress signals are received.
SPS 3.2.1.2 Line of Bearing	A position or line of bearing is established on all transmissions on all international distress frequencies.
SPS 3.2.1.3 Transponders	Transponders installed on fishing or other vessels and aircraft are received, plotted and analyzed for compliance.
SPS 3.2.2 Intelligence	All forms of intelligence are collected, processed, analyzed & disseminated.
SPS 3.2.3 Mission Event Data	Mission event data is collected and recorded.
SPS 3.2.4 Unit Status	Unit status is collected and recorded.
SPS 3.2.5 Surveillance, Detection and Monitoring	Target movement and other mission triggers such as pollution, marine sanctuary violations, collisions, etc. in the Deepwater area of responsibility are determined.
SPS 3.2.5.1 Small Targets	Small targets (as small as a single person in the water or a single engine civil aircraft in the air) are detected with a probability of detection of at least 90% and tracked.
SPS 3.2.5.2 Glacial Ice Targets	Glacial ice targets (as small as 3 meters by 4 meters) are detected and tracked.
SPS 3.2.5.3 Oil and Hazardous Materials	Hazardous materials, oil, and other prohibited discharges are detected and the size and composition is determined.
SPS 3.2.6 Classify Targets	Targets (fishing vessels, merchant vessels, etc) are classified into specific groups or categories.
SPS 3.2.7 Identify Targets	Individual targets are identified by differentiation from other targets in the same classification category.
SPS 3.2.8 Sort	Targets of interest are sorted from non-targets of interest prior to compromising covert posture of asset, when appropriate.

b. Interface Requirements Criteria

Requirement	Standard
SPS 3.9.1.1 378 ⁷ (WHEC) High Endurance Cutters	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.
SPS 3.9.1.2 270 ⁷ (WMEC) Medium Endurance Cutters	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.
SPS 3.9.1.3 210 ⁷ (WMEC) Medium Endurance Cutters	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.

SPS 3.9.1.4 Mature (WMEC)	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.
SPS 3.9.1.5 110 ⁷ (WPB) Patrol Boats	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.
SPS 3.9.2.1 HC-130H Long Range Surveillance Aircraft	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.
SPS 3.9.2.2 HH-60J Medium Range Recovery Helicopters	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.
SPS 3.9.2.3 HU-25A, HU-25B AND HU-25C Medium Range Surveillance Aircraft	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.
SPS 3.9.2.4 HH-65A Short Range Recovery Helicopters	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.
SPS 3.9.2.5 Gulfstream 3	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.
SPS 3.9.3.1 Telecommunications Center (COMMCEN)	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.
SPS 3.9.3.2 Operations Center/ Command Center (OPCEN)	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.
SPS 3.9.3.3 Transportable Communication Center (TCC)	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.
SPS 3.9.3.4 Communications Area Master Station (CAMS)	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.
SPS 3.9.3.5 Communications Station (COMMSTA)	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.
SPS 3.9.4.1 Maintenance and Logistics Commands (MLC)	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.
SPS 3.9.4.1.1 Naval Engineering Support Units (NESU)	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.
SPS 3.9.4.1.2 Civil Engineering Units (CEU)	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.
SPS 3.9.4.1.3 Electronic Support Units (ESU)	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.
SPS 3.9.4.2 Integrated Support Commands (ISC)	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.
SPS 3.9.4.3 Coast Guard Bases	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.
SPS 3.9.4.4 Coast Guard Air Stations (CGAS)	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.
SPS 3.9.4.5 Training Centers (TRACEN)	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.
SPS 3.9.4.6 Other Logistic Organizations	Interface with legacy assets as these assets are gradually replaced, upgraded, and/or retained in present configuration.

3. SPS Compliance Subfactor 3.

a. Decision Support Capabilities Criteria

Requirement	Standard
SPS 3.5.1 Determine High Interest Grids and Assess Threats	Activity in High Interest Grids are determined and tracked.
SPS 3.5.2 Develop Plans	Decision support capabilities are provided to develop various operational plans.

SPS 3.5.3 Allocate Resources	Decision support capabilities are provided to prioritize and adjust use of available assets.
SPS 3.5.4 Direct and Oversee Operations	IDS exercises command and control of multiple USCG air and surface assets and in U.S. multi-national operations (Department of Defense, Other Government Agencies, NATO & similar coalitions and potential partners).
SPS 3.5.5 Navigate	IDS assets navigational positions are determined by current state of the market technology as required to prosecute Deepwater missions.
SPS 3.5.6 Maintain Situation Awareness	Awareness of the operating environment, to include fusion of local tactical information with database information, is accomplished in near real time.
SPS 3.5.6.1 Ocean Surface Current	Ocean surface current speed and direction is determined.
SPS 3.5.6.2 Oceanographic and Meteorological Observations	Oceanic bathythermographic profiles and meteorological observations including sea temperature, sea state, visibility, wind direction and velocity, air temperature, etc. are determined.
SPS 3.5.6.3 Drift Rate Determination	Wind and ocean current are continuously sensed in designated search area during response to mariners in distress.
SPS 3.5.7 Evaluate and Adjust Operations	IDS has capability to evaluate and adjust operations to ensure operations without mission degradation.
SPS 3.5.8 Direct and Oversee Sustainment Actions	Planning support is provided to ensure assets are able to accomplish missions.

b. Support Operations Criteria

Requirement	Standard
SPS 3.7.1 Endurance	On scene presence is sustainable for 45 days.
SPS 3.7.2 Replenishment	At sea replenishment (surface to surface, surface to air, & air to surface) is conducted without affecting embarked assets.
SPS 3.7.3 Health Care	Adequate health care facility to include triage, resuscitation, and transfer of patients is provided to enable independent operations for 45 days.
SPS 3.7.4 Support Services	Logistical support is provided to subordinate units, including embarked air assets, surface, and PSU unit(s) for 45 days.
SPS 3.7.5 Damage Control	Damage to own unit is prevented and controlled to the maximum extent possible.
SPS 3.7.6 Long Term Personnel Evacuees	Food, water, sanitation, medical services, and shelter (separate from own forces' facilities) is provided to 150 evacuees over 4 weeks.
SPS 3.7.7 Short Term Personnel Evacuees	Food, water, sanitation, medical services, and shelter (separate from own forces' facilities) is provided to 300 evacuees over 72 hours.
SPS 3.7.8 Short Term Support.	Support, including messing and berthing is provided for 16 additional people for 72 hours.
SPS 3.7.9 Long Term Support	Support, including messing and berthing is provided for 6 additional people for 30 days.

c. Support Requirements Criteria

Requirement	Standard
SPS 3.10.1 Human Systems Integration (HSI)	IDS incorporates human systems integration.
SPS 3.10.1.1 Personnel	Life cycle costs are reduced by optimizing personnel for operational and support infrastructure. All assets fully accommodate 50-50 male-female crew mix.
SPS 3.10.1.2 Training and Training Systems	IDS includes maintenance and operator training for new systems, minimizes training infrastructure and is compatible with legacy training systems.
SPS 3.10.1.3 System Safety	IDS assets are designed to reduce personnel and equipment losses from mishaps.

SPS 3.10.1.4 Human Factors Engineering	Human factors engineering is incorporated in operation, maintenance and control of IDS systems.
SPS 3.10.1.5 Habitability	Arrangements, system performance and habitability features are designed to maximize mission performance, comfort, convenience, and quality of life of assigned personnel.
SPS 3.10.2 Supportability	Logistics to support the IDS infrastructure is provided.
SPS 3.10.2.1 Maintenance	Overall maintenance is minimized at all levels on the organizational unit and shore support activities.
SPS 3.10.2.1.1 Reliability	Highly reliable systems are employed. The IDS employs a strategy to maintain high reliability of assets/components.
SPS 3.10.2.1.2 Equipment Commonality	Use of commonality and class standard equipment minimizes life cycle cost.
SPS 3.10.2.1.3 Modularity	Modularity is incorporated to facilitate maintenance and replacement of component or assets for short-term and long-term maintenance planning, and system upgrades to minimize life-cycle costs.
SPS 3.10.2.1.4 Open System	Components and subsystems of all assets are designed open to the extent where future upgrades, level of modularity, and level of servicing are optimized with respect to cost within the life-cycle of the item (component, subsystem, and assets).
SPS 3.10.2.1.5 Component, Subsystem, and System Interfaces	Components, systems & subsystems utilize expected industry standard interfaces during the expected life-cycle of all assets.
SPS 3.10.2.2 Computer Resources Support.	Capability for future hardware/software upgrades (open architecture), with sufficient documentation developed and maintained for software configuration management and upgrades is provided. IDS is designed to meet requirements for compliance with DII COE, CG COE, NII, GII, commercial & non-developmental systems.
SPS 3.10.2.3 Facilities	IDS minimizes impact on shore support activities. If proposed, new shore support activities costs are included in life-cycle cost estimates.
SPS 3.10.2.4 Supply Support	IDS asset supply support system is designed to minimize life cycle cost, on board and government system stock storage and sparing is reduced and interim supply support is eliminated. Major shore insurance spares and storage facilities are identified.
SPS 3.10.2.5 Support and Test Equipment	IDS assets' support and test equipment are designed to minimize life cycle cost. Full built-in diagnostic and test for mission critical systems are considered in the design.
SPS 3.10.2.6 Packaging, Handling & Transportation	IDS assets minimize packaging required for supply support.
SPS 3.10.2.7.1 Support	Technical data is provided to support the IDS.
SPS 3.10.2.7.2 Integrated Product Data Environment (IPDE)	IPDE is incorporated throughout system development and transition through operational deployment.
SPS 3.10.2.8 Legacy Systems	Integrated Logistics Support system considers integration of legacy systems and their support requirements.
SPS 3.10.3 Availability of Assets	Availability (quantity and mix) of assets optimizes IDS missions and capabilities in the AOR at all times for present missions.

d. Operational Environment Criteria

Requirement	Standard
SPS 3.11.1 Operating Period	IDS retains full operational capability 24 hours a day 365 days a year.
SPS 3.11.2 Sea State	IDS retains full operational capability in sea conditions up to and including sea state five.
SPS 3.11.3 Weather	IDS retains full operational capability in weather up to moderate rain, fog, snow, sleet, and other adverse weather conditions.
SPS 3.11.4 Air/Sea Temperature &	IDS retains its full operational capability over temperatures ranging from -40

Source Selection Sensitive See FAR 3.104

Humidity	degrees F to +125 degrees F in humidity ranging from 20% to 100% and sea water temperatures ranging from +28 degrees F to +95 degrees F.
SPS 3.11.6 Shock	IDS, assets, and each of its components operate during and after shock levels typical of the host system under all operational scenarios.
SPS 3.11.7 Vibration	IDS, assets, and each of its components operate during and after exposure to vibration typical of the host system under all operational scenarios.
SPS 3.11.8 Electromagnetic Environmental Effects (E3)	Electromagnetic Environmental Effects do not degrade the performance of the IDS.
SPS 3.11.9 Electrostatic Discharge (ESD)	Electrostatic discharge generated by personnel, helicopters, and other sources does not degrade the IDS.
SPS 3.11.10 Electromagnetic Interference/Compatibility (EMI/EMC)	Electromagnetic Interference/Compatibility (EMI/EMC) do not degrade the IDS. Electromagnetic environment produced by radar, communications, and other electronic equipment of the IDS or legacy assets does not degrade the performance of the IDS.
SPS 3.11.11 Aircraft Certification	Proposed aircraft are IFR certified, comply with appropriate noise level regulations and are certified for operation in known icing conditions.
SPS 3.11.12.1 Environmental Impact	IDS design minimizes negative impact on the environment.
SPS 3.11.12.2 Environmental Regulations	IDS designed to meet current and projected international, federal, state and local environmental regulations throughout its life cycle.
SPS 3.11.12.3 Energy Consumption	IDS minimizes energy consumption for all IDS assets when operating at cruise speeds.