

Function	Definition	Definition Source
1.0 Combat	Directly support combat and mission operations	Unknown
1.1 Sense	Detect and identify mission objects in area of interest and develop parametric data on these objects.	SIAP
1.1.1 Search	Observe an area of interest either passively, looking for energy emissions that conform to expected signals of interest, or actively, transmitting energy to detect objects of potential interest.	RDA CHENG
1.1.1.1 Underwater Active Search	Detect by propagation of signal through water via reflected return of signal off target/object.	OA/Fn
1.1.1.1.1 Transmit and Detect Underwater Signals	Transmit, intercept and register the presence of signals under the water's surface.	RDA CHENG
1.1.1.1.2 Process Underwater Signals	Process underwater signals to filter noise, countermeasures, and clutter, improve signal-to-interference ratio, amplify, or otherwise improve signals for reception, retransmission, or conversion to more tactically descriptive and useful information.	RDA CHENG
1.1.1.1.3 Recognize Underwater Signals	Determine type and basic characteristics of underwater signal received.	RDA CHENG
1.1.1.1.4 Countermeasures Signal Recognition	Determine existence of countermeasures within measurements.	OA/Fn
1.1.1.1.5 Multiple Object Estimation	Based on signals received, estimate presence of multiple, unresolvable objects.	RDA CHENG
1.1.1.1.6 Discrimination Signal Processing	Distinguish lethal object from debris based on local sensor signal processing.	OA/Fn
1.1.1.1.7 Intelligence Collection	Gather raw Underwater Active data based on collection plans and Forces requests for information.	NAVAIR
1.1.1.1.8 Intelligence Processing	Convert collected Underwater Active intelligence data to a form suitable for the production of finished intelligence via translations, decryption, and interpretation of information stored on film and magnetic media through the use of highly refined photographic and electronic processes.	NAVAIR
1.1.1.1.9 Intelligence Collection and Processing	Gather raw underwater data and convert data to a form suitable for the production of finished intelligence; includes translations, decryption, and interpretation of information stored on film and magnetic media through the use of highly refined photographic and electronic processes.	Director of Central Intelligence
1.1.1.1.10 Interrogate, Detect, and Process Underwater IFF Signals	Intercept and register the presence, range, azimuth and code values of underwater FF signals. Process IFF signals to filter noise, improve signal-to-noise ratio, simplify or otherwise improve signals for reception, retransmission, or conversion to more tactically descriptive and useful information.	RDA CHENG
1.1.1.2 Underwater Passive Search	Detect via intercept of an underwater signal (acoustic, optical, magnetic, etc.) emanating from a target or other source through an open receiver/detection device.	SIAP
1.1.1.2.1 Detect Underwater Signals	Intercept and register the presence of signals under the water's surface.	RDA CHENG
1.1.1.2.2 Process Underwater Signals	Process underwater signals to filter noise, countermeasures and clutter, improve signal-to-interference ratio, amplify, or otherwise improve signals for reception, retransmission, or conversion to more tactically descriptive and useful information.	RDA CHENG
1.1.1.2.3 Recognize Underwater Signals	Determine type and basic characteristics of underwater signal received.	RDA CHENG
1.1.1.2.4 Countermeasure Signal Recognition	Determine existence of countermeasures within measurements.	OA/Fn
1.1.1.2.5 Multiple Object Estimation	Based on signals received, estimate presence of multiple, unresolvable objects.	RDA CHENG
1.1.1.2.6 Discrimination Signal Processing	Distinguish lethal object from debris based on local sensor signal processing.	OA/Fn
1.1.1.2.7 Intelligence Collection	Gather raw Underwater Passive data based on collection plans and Forces requests for information.	NAVAIR
1.1.1.2.8 Intelligence Processing	Convert collected Underwater Passive intelligence data to a form suitable for the production of finished intelligence via translations, decryption, and interpretation of information stored on film and magnetic media through the use of highly refined photographic and electronic processes.	NAVAIR
1.1.1.2.9 Intelligence Collection and Processing	Gather raw underwater data and convert data to a form suitable for the production of finished intelligence; includes translations, decryption, and interpretation of information stored on film and magnetic media through the use of highly refined photographic and electronic processes.	Director of Central Intelligence
1.1.1.2.8 Interrogate, Detect, and Process Underwater IFF Signals	Intercept and register the presence, range, azimuth and code values of underwater FF signals. Process IFF signals to filter noise, improve signal-to-noise ratio, simplify or otherwise improve signals for reception, retransmission, or conversion to more tactically descriptive and useful information.	RDA CHENG
1.1.1.3 Surface/Ground Active Search	Actively transmit energy to detect objects of interest on the surface/ground.	RDA CHENG

Function	Definition	Definition Source
1.1.1.3.1 Transmit and Detect Surface/Ground Signals	Transmit, intercept and register the presence of surface/ground signals.	SPAWAR
1.1.1.3.2 Process Surface/Ground Signals	Process surface/ground signals to filter noise, ECM, and clutter, improve signal-to-interference ratio, amplify, or otherwise improve signals for reception, retransmission, or conversion to more tactically descriptive and useful information.	RDA CHENG
1.1.1.3.3 Recognize Surface/Ground Signals	Determine type and basic characteristics of surface/ground signal received.	SPAWAR
1.1.1.3.4 ECM Signal Recognition	Determine existence of ECM within measurements.	SIAP
1.1.1.3.5 Multiple Object Estimation	Based on measured return, estimate presence of multiple, unresolvable objects.	SIAP
1.1.1.3.6 Discrimination Signal Processing	Distinguish lethal object from debris based on local sensor signal processing.	SIAP
1.1.1.3.7 Intelligence Collection	Gather raw Surface/Ground Active data based on collection plans and Forces requests for information.	NAVAIR
1.1.1.3.8 Intelligence Processing	Convert collected Surface/Ground Active intelligence data to a form suitable for the production of finished intelligence via translations, decryption, and interpretation of information stored on film and magnetic media through the use of highly refined photographic and electronic processes.	NAVAIR
1.1.1.3.9 Intelligence Collection and Processing	Gather raw surface/ground data and convert data to a form suitable for the production of finished intelligence; includes translations, decryption, and interpretation of information stored on film and magnetic media through the use of highly refined photographic and electronic processes.	Director of Central Intelligence
1.1.1.3.8 Interrogate, Detect, and Process Surface/Ground IFF Signals	Intercept and register the presence, range, azimuth and code values of surface/ground IFF signals. Process IFF signals to filter noise, improve signal-to-noise ratio, simplify or otherwise improve signals for reception, retransmission, or conversion to more tactically descriptive and useful information.	RDA CHENG
1.1.1.4 Surface/Ground Passive Search	Detect via intercept of a signal (acoustic, optical, magnetic, electronic, etc.) emanating from a target or other source through an open receiver/detection device.	RDA CHENG
1.1.1.4.1 Detect Surface/Ground Signals	Intercept and register the presence of surface/ground signals.	OA/Fn
1.1.1.4.2 Process Surface/Ground Signals	Process surface/ground signals to filter noise, ECM, and clutter, improve signal-to-interference ratio, amplify, or otherwise improve signals for reception, retransmission, or conversion to more tactically descriptive and useful information.	RDA CHENG
1.1.1.4.3 Recognize Surface/Ground Signals	Determine type and basic characteristics of surface/ground signal received.	OA/Fn
1.1.1.4.4 ECM Signal Recognition	Determine existence of ECM within measurements.	OA/Fn
1.1.1.4.5 Multiple Object Estimation	Based on signals received, estimate presence of multiple, unresolvable objects.	RDA CHENG
1.1.1.4.6 Discrimination Signal Processing	Distinguish lethal object from debris based on local sensor signal processing.	OA/Fn
1.1.1.4.7 Intelligence Collection	Gather raw Surface/Ground Passive data based on collection plans and Forces requests for information.	NAVAIR
1.1.1.4.8 Intelligence Processing	Convert collected Surface/Ground Passive intelligence data to a form suitable for the production of finished intelligence via translations, decryption, and interpretation of information stored on film and magnetic media through the use of highly refined photographic and electronic processes.	NAVAIR
1.1.1.4.9 Intelligence Collection and Processing	Gather raw surface/ground data and convert data to a form suitable for the production of finished intelligence; includes translations, decryption, and interpretation of information stored on film and computer accessible media through the use of highly refined photographic and electronic processes.	Director of Central Intelligence
1.1.1.4.8 Interrogate, Detect, and Process Surface/Ground IFF Signals	Intercept and register the presence, range, azimuth and code values of surface/ground IFF signals. Process IFF signals to filter noise, improve signal-to-noise ratio, simplify or otherwise improve signals for reception, retransmission, or conversion to more tactically descriptive and useful information.	RDA CHENG
1.1.1.5 Horizon Air Active Search	Actively transmit energy to detect airborne objects of interest on the horizon	RDA CHENG
1.1.1.5.1 Transmit and Detect Horizon Air Signals	Transmit, intercept and register presence of horizon air signals.	SPAWAR
1.1.1.5.2 Process Horizon Air Signals	Process horizon air signals to filter noise, ECM, and clutter, improve signal-to-interference ratio, amplify, or otherwise improve signals for reception, retransmission, or conversion to more tactically descriptive and useful information.	RDA CHENG
1.1.1.5.3 Recognize Horizon Air Signals	Determine type and basic characteristics of received horizon air signal.	SPAWAR

Function	Definition	Definition Source
1.1.1.5.4 ECM Signal Recognition	Determine existence of ECM within measurements.	SIAP
1.1.1.5.5 Multiple Object Estimation	Based on measured return, estimate presence of multiple, unresolvable objects.	SIAP
1.1.1.5.6 Discrimination Signal Processing	Distinguish lethal object from debris based on local sensor signal processing.	SIAP
1.1.1.5.7 Intelligence Collection	Gather raw horizon air passive data based on collection plans and Forces requests for information.	NAVAIR
1.1.1.5.8 Intelligence Processing	Convert collected horizon air passive intelligence data to a form suitable for the production of finished intelligence via translations, decryption, and interpretation of information stored on film and magnetic media through the use of highly refined photographic and electronic processes.	NAVAIR
1.1.1.6 Horizon Air Passive Search	Detect via intercept of a signal (acoustic, optical, magnetic, electronic, etc.) emanating from a target or other source through an open receiver/detection device.	RDA CHENG
1.1.1.6.1 Detect Horizon Air Signals	Intercept and register presence of horizon air signals.	RDA CHENG
1.1.1.6.2 Process Horizon Air Signals	Process horizon air signals to filter noise, ECM, and clutter, improve signal-to-interference ratio, amplify, or otherwise improve signals for reception, retransmission, or conversion to more tactically descriptive and useful information.	RDA CHENG
1.1.1.6.3 Recognize Horizon Air Signals	Determine type and basic characteristics of received horizon air signal.	OA/Fn
1.1.1.6.4 ECM Signal Recognition	Determine existence of ECM within measurements.	OA/Fn
1.1.1.6.5 Multiple Object Estimation	Based on measured return, estimate presence of multiple, unresolvable objects.	OA/Fn
1.1.1.6.6 Discrimination Signal Processing	Distinguish lethal object from debris based on local sensor signal processing.	OA/Fn
1.1.1.6.7 Intelligence Collection	Gather raw horizon air passive data based on collection plans and Forces requests for information.	NAVAIR
1.1.1.6.8 Intelligence Processing	Convert collected horizon air passive intelligence data to a form suitable for the production of finished intelligence via translations, decryption, and interpretation of information stored on film and magnetic media through the use of highly refined photographic and electronic processes.	NAVAIR
1.1.1.6.9 Intelligence Collection and Processing	Gather raw horizon air data and convert data to a form suitable for the production of finished intelligence; includes translations, decryption, and interpretation of information stored on film and computer accessible media through the use of highly refined photographic and electronic processes.	Director of Central Intelligence
1.1.1.6.8 Interrogate, Detect, and Process Air IFF Signals	Intercept and register the presence, range, azimuth and code values of air IFF signals. Process IFF signals to filter noise, improve signal-to-noise ratio, simplify or otherwise improve signals for reception, retransmission, or conversion to more tactically descriptive and useful information.	RDA CHENG
1.1.1.7 Above Horizon Air Active Search	Actively transmit energy to detect objects of interest in the air or in space.	RDA CHENG
1.1.1.7.1 Transmit and Detect Above Horizon Air Signals	Transmit, intercept and register presence of signals.	SPAWAR
1.1.1.7.2 Process Above Horizon Air Signals	Process signals to filter noise, ECM and clutter, improve signal-to-interference ratio, amplify, or otherwise improve signals for reception, retransmission, or conversion to more tactically descriptive and useful information.	RDA CHENG
1.1.1.7.3 Recognize Above Horizon Air Signals	Determine type and basic characteristics of received above horizon air signals.	SPAWAR
1.1.1.7.4 ECM Signal Recognition	Determine existence of ECM within measurements.	SIAP
1.1.1.7.5 Multiple Object Estimation	Based on measured return, estimate presence of multiple, unresolvable objects.	SIAP
1.1.1.7.6 Discrimination Signal Processing	Distinguish lethal object from debris based on local sensor signal processing.	SIAP
1.1.1.7.7 Intelligence Collection	Gather raw above horizon active data based on collection plans and Forces requests for information.	NAVAIR
1.1.1.7.8 Intelligence Processing	Convert collected above horizon active intelligence data to a form suitable for the production of finished intelligence via translations, decryption, and interpretation of information stored on film and magnetic media through the use of highly refined photographic and electronic processes.	NAVAIR
1.1.1.7.8 Interrogate, Detect, and Process Air IFF Signals	Intercept and register the presence, range, azimuth and code values of air IFF signals. Process IFF signals to filter noise, improve signal-to-noise ratio, simplify or otherwise improve signals for reception, retransmission, or conversion to more tactically descriptive and useful information.	RDA CHENG
1.1.1.8 Above Horizon Air Passive Search	Passively search for energy emissions (acoustic, optical, magnetic, electronic, etc.) from airborne and/or space threats.	RDA CHENG
1.1.1.8.1 Detect Above Horizon Air Signals	Intercept and register presence of above horizon air signals.	OA/Fn

Function	Definition	Definition Source
1.1.1.8.2 Process Above Horizon Air Signals	Process signals to filter noise, ECM, and clutter, improve signal-to-interference ratio, amplify, or otherwise improve signals for reception, retransmission, or conversion to more tactically descriptive and useful information.	RDA CHENG
1.1.1.8.3 Recognize Above Horizon Air Signals	Determine type and basic characteristics of received above horizon air signals.	OA/Fn
1.1.1.8.4 ECM Signal Recognition	Determine existence of ECM within measurements.	OA/Fn
1.1.1.8.5 Multiple Object Estimation	Based on signals received, estimate presence of multiple, unresolvable objects.	RDA CHENG
1.1.1.8.6 Discrimination Signal Processing	Distinguish lethal object from debris based on local sensor signal processing.	OA/Fn
1.1.1.8.7 Intelligence Collection	Gather raw above horizon passive data based on collection plans and Forces requests for information.	NAVAIR
1.1.1.8.8 Intelligence Processing	Convert collected above horizon passive intelligence data to a form suitable for the production of finished intelligence via translations, decryption, and interpretation of information stored on film and magnetic media through the use of highly refined photographic and electronic processes.	NAVAIR
1.1.1.8.9 Interrogate, Detect, and Process Air IFF Signals	Intercept and register the presence, range, azimuth and code values of air IFF signals. Process IFF signals to filter noise, improve signal-to-noise ratio, simplify or otherwise improve signals for reception, retransmission, or conversion to more tactically descriptive and useful information.	RDA CHENG
1.1.1.9 Over the Horizon Active Search	Actively transmit energy from surface, airborne or space-based systems to detect targets Over the Horizon.	RDA CHENG
1.1.1.9.1 Transmit and Detect Over the Horizon Signals	Transmit, intercept and register presence of signals.	SPAWAR
1.1.1.9.2 Process Signals	Process signals to filter noise, ECM, and clutter, improve the signal-to-interference ratio, amplify, or otherwise improve signals for reception, retransmission, or conversion to more tactically descriptive and useful information.	SPAWAR
1.1.1.9.3 Recognize Over the Horizon Signals	Determine type and basic characteristics of received OTH signals.	SPAWAR
1.1.1.9.4 ECM Signal Recognition	Determine existence of ECM within measurements.	SIAP
1.1.1.9.5 Multiple Object Estimation	Based on measured return, estimate presence of multiple, unresolvable objects.	SIAP
1.1.1.9.6 Discrimination Signal Processing	Distinguish lethal object from debris based on local sensor signal processing.	SIAP
1.1.1.9.7 Intelligence Collection	Gather raw over the horizon data based on collection plans and Forces requests for information.	NAVAIR
1.1.1.9.8 Intelligence Processing	Convert collected over the horizon intelligence data to a form suitable for the production of finished intelligence via translations, decryption, and interpretation of information stored on film and magnetic media through the use of highly refined photographic and electronic processes.	NAVAIR
1.1.1.9.9 Interrogate, Detect, and Process Air IFF Signals	Intercept and register the presence, range, azimuth and code values of air IFF signals. Process IFF signals to filter noise, improve signal-to-noise ratio, simplify or otherwise improve signals for reception, retransmission, or conversion to more tactically descriptive and useful information.	RDA CHENG
1.1.1.10 Over the Horizon Passive Search	Passively search from surface, airborne, or space-based systems for energy emissions (acoustic, optical, magnetic, electronic, etc.) from targets Over the Horizon.	RDA CHENG
1.1.1.10.1 Detect OTH Signals	Intercept and register presence of OTH signals.	OA/Fn
1.1.1.10.2 Process OTH Signals	Process signals to filter noise, ECM, and clutter, improve the signal-to-interference ratio, amplify, or otherwise improve signals for reception, retransmission, or conversion to more tactically descriptive and useful information.	RDA CHENG
1.1.1.10.3 Recognize OTH Signals	Determine type and basic characteristics of received OTH signals.	OA/Fn
1.1.1.10.4 ECM Signal Recognition	Determine existence of ECM within measurements.	OA/Fn
1.1.1.10.5 Multiple Object Estimation	Based on signals received, estimate presence of multiple, unresolvable objects.	OA/Fn
1.1.1.10.6 Discrimination Signal Processing	Distinguish lethal object from debris based on local sensor signal processing.	OA/Fn
1.1.1.10.7 Intelligence Collection	Gather raw Over the Horizon Passive data based on collection plans and Forces requests for information.	NAVAIR
1.1.1.10.8 Intelligence Processing	Convert collected Over the Horizon Passive intelligence data to a form suitable for the production of finished intelligence via translations, decryption, and interpretation of information stored on film and magnetic media through the use of highly refined photographic and electronic processes.	NAVAIR

Function	Definition	Definition Source
1.1.1.10.9 Interrogate, Detect, and Process Air IFF Signals	Intercept and register the presence, range, azimuth and code values of air IFF signals. Process IFF signals to filter noise, improve signal-to-noise ratio, simplify or otherwise improve signals for reception, retransmission, or conversion to <u>more tactically descriptive and useful information.</u>	RDA CHENG
1.1.2 Data Fusion	Create and maintain a correlated and fused common sensor picture from multi-sensor data.	RDA CHENG
1.1.2.1 Single Object Estimation	Estimation and prediction of entity states on the basis of observation to track association, continuous state estimation (e.g. kinematics) and discrete state estimation (e.g. target type and ID) (ISIF 1999). Combining data to obtain estimates of an entity's location, motion, attributes, characteristics, and identity.	ISIF 1999
1.1.2.1.1 Track Formation	Track Formation forms and maintains tracks from local and remote sensor and systems. This function shall provide tracking capability for sensors that require this capability to generate track states. This function shall fuse measurements from multiple sensors into track states for incorporation into the track database. It is also responsible for the correlation and association of new tracks and track updates with existing tracks. This function is the sole point of synthesis for all tracks and measurement information for the combat system.	SIAP WG
1.1.2.1.1.1 Measurement Fusion	Measurement Fusion initiates and updates tracks based on measurements from local and remote sensors with specified accuracy, precision, update rates, and latencies. This function will fuse measurement data in such a way as to enhance track/measurement continuity and track/measurement accuracy. This function maintains an estimate of the current track state and track state errors. Measurement Fusion is also responsible for processing (e.g filtering, tracking) measured attributes over time to provide tactically significant information. Track states are provided to the correlation function for inclusion in the track database. Track-associated measurement data is also provided to the functions that support measurement distribution for direction fire control quality data to measurement consumers. If MF receives a Track Association Measurement Report, it will not attempt to re-associate it. MF may contain trackers for source sensors.	SIAP WG
1.1.2.1.1.2 Correlation	Correlation is responsible for the emerging of air, surface, land and subsurface track data with existing combat system track data. In addition to merging track data, this function will determine when existing merged tracks need to be split. This function will also provide to functions that support association, surface, land and subsurface track data that is not merged for new track initiation and additional characterization. These tracks can be from local or remote sensors or systems. This merging process will provide the "best" characteristics from each of the merged tracks in forming the combat system track. This function shall use track updates as well as the track histories. This function shall rely on spatial/kinematic characteristics and tagged attributes (e.g. modes and codes) to perform the merge process.	SIAP WG
1.1.2.1.1.3 Association	Association reviews the uncorrelated tracks from the functions that perform correlation to determine and establish any linkage between tracks for further track characterization. This additional characterization provides linking between those tracks that do not meet all correlation criteria but that do have similar characteristics which will assist in characterizing the uncorrelated tracks (e.g. TBM debris clouds, formation tracking information.)	SIAP WG
1.1.2.1.2 Track Report Filtering	Track Report Filtering performs Reporting Responsibility and implements the Track Reporting Rules, thereby adjusting the flow of track data to and from remote units.	SIAP WG
1.1.2.1.3 Remote Track Coordination	Remote Track Coordination controls the content of multiple communications links. This function: Implements Data Forwarding Rules, resolves/precludes duplicate track data across multiple communications links, arbitrates communication link track numbers other units on the communications links.	SIAP WG
1.1.2.1.4 Data Registration	Data Registration provides accurate alignment of all local and remote track and measurement data from both registered and unregistered sources.	SIAP WG
1.1.2.1.4.1 Geodetic Alignment	Geodetic Alignment removes own-unit translational and rotational biases/errors from local track data and translates to a standard reference frame for transmission.	SIAP WG
1.1.2.1.4.2 Relative Alignment	Relative Alignment converts own-unit track data positions (translational and rotational) to a Gridlock Reference Unit (GRU) reference frame for transmission. Relative Alignment also includes receive-only Interface Unit Registration. And Pair-wise.	SIAP WG

Function	Definition	Definition Source
1.1.2.1.4.3 Inter-Link Alignment	Inter-Link Alignment (ILA) converts track data position from one network's (i.e., Data Link) reference frame to another network's (i.e., Data Link) reference frame.	SIAP WG
1.1.2.1.5 Track Number Assignment	Track Number Assignment is responsible for assigning all CS and communications link track numbers. Track Number Assignment assigns numbers to unassociated measurements and tracks for use internally and on the communications networks of the force. These assignments shall uniquely represent the track across the force and are made in such a way that coordination among communications links is inherent (e.g., are recognized as fused tracks). Track Number Assignment shall manage the reuse of track numbers to minimize track number ambiguities.	SIAP WG
1.1.2.2 Multi-sensor Data Alignment	Convert data from each sensor to a common coordinate system, and align data both temporally and spatially. (i.e. Time Tag data and provide it in a common geospatial reference system.	RDA CHENG
1.1.2.3 Multi-sensor Data Association	Determine which measurement/track data are valid candidates to update existing tracks; Assign valid candidates to existing tracks.	RDA CHENG
1.1.2.4 Data Fusion Evaluation	Evaluate performance and effectiveness of fusion process to establish real time control and long term process improvements.	ISIF 1999
1.1.2.4.1 Data Fusion Performance Refinement	Identify changes or adjustments to processing functions within data fusion domain which may result in improved performance.	ISIF 1999
1.1.2.4.2 Node Assignments	Recommend changes to fusion roles and responsibilities of nodes based on location, resources, and system capabilities at nodes.	SIAP
1.1.2.4.3 Sensor Management	Sensor Management utilizes the force/local sensor plans and manages their implementation. Sensor Management is responsible for prioritizing local sensor tasks and coordinating with remote sensor assets. It is assumed that the battle force sensor management plan exists and that units would implement their portion of the sensor management plan. At the unit level, Sensor Management can make requests for remote services from other units, and honors remote requests for services on its' local sensors.	Unknown
1.1.2.4.4 Sensor Control	Local Sensor Control and Management monitors sensor capabilities and directs all sensor assignments based on those capabilities in order to meet CS-directed missions. Specific responsibilities include: Directs all Sensor Assignments, Accepts requests from CS Sensor Management, Assigns search and tracking responsibilities to each sensor, Assigns responsibility based on sensor capabilities, availability, environmental (i.e. electronic protection, clutter, EMI weather), Performs spatial, time and frequency management, Ensures local sensors honor battle force-level sensor requests (e.g., Engage on Remote, Search).	Unknown
1.1.2.5 Sensor and Sensor Processing Control	Monitor on-going Sense process to optimize utilization of sensors or information sources and algorithms to achieve most useful and accurate set of information.	SIAP
1.1.2.5.1 Sensor Characterization	Sensor Characterization registers sensors coming online and records their capabilities and limitations (e.g., operational frequencies, volume coverage, detection range) in terms of their abilities to meet specific classification capabilities, and vulnerability to an adverse RF environment. These capabilities are stored for use by sensor control and management.	Unknown
1.1.2.5.2 Operational Assessment	Operational Assessment receives readiness, status and loading information from online sensors. It continually determines the operational capability of a sensor based on sensor status and loading information. This function provides Sensor Control with a continuous up-to-date understanding of each sensor's operational capability.	Unknown
1.1.2.5.3 Allocation and Tasking Requests	Request/recommend sensor tasking and/or allocation to improve quality or completeness of situation estimate based on mission management.	SIAP
1.1.2.5.4 Source Requirements Processing	Determine source specific data requirements (i.e. identifies specific sensors/sensor data, qualified data, or reference data) needed to improve multi-level fusion products.	ISIF 1999
1.1.3 Track	Identify a series of sensor data points as having come from the same source. - Src: (SPAWAR 05 3/03)	SIAP
1.1.3.1 Assign Track Category	Indicate track category using predetermined categorization procedures.	SPAWAR
1.1.3.2 Assign Track Reference	Provide initial reference for each track generated.	SPAWAR
1.1.3.3 Calculate Geolocation	Determine latitude, longitude, and altitude (or depth) of a sensor contact/track.	SPAWAR
1.1.3.4 Classify Track	Classify source being tracked using predetermined applicable classification procedures.	SPAWAR
1.1.3.5 Estimate Track Count	Determine number of tracks currently in the generation process.	SPAWAR
1.1.3.6 Maintain History	Store and maintain track information for a predetermined period.	SPAWAR
1.1.3.7 Qualify Track	Indicate if track meets qualification criteria and/or standards.	SPAWAR

Function	Definition	Definition Source
1.1.3.8 Feature Extraction	Measure or estimate parametric data on a target (e.g., length, rcs).	RDA CHENG
1.1.3.9 Identification	Analyze parametric data of a track in order to establish identity of track source.	RDA CHENG
1.1.3.9.1 Activity and Status Decision	Fuse multi-sensor identification attributes.	SIAP
1.1.3.9.2 Category Decision	Assign vehicles to a category (i.e., Space, Air, Ground, etc.).	SIAP
1.1.3.9.3 Object Identity Estimation	Determine classification or identity of entities such as emitters, platforms, or low-level military units, based on attributes or features.	ISIF 1999
1.1.3.9.3.1 Determine Composite ID	Composite ID enables networked surface, ground, subsurface and space forces to create a single composite identification description of a coordinate from multiple sources. Composite ID allows forces to see a highly accurate single representation of a friendly, enemy or unknown target or track.	NAVAIR
1.1.3.9.3.2 Determine Comprehensive ID	Provide all data track identification.	SPAWAR
1.1.3.9.3.3 Determine Discrete ID	Provide individual source or contact identification.	SPAWAR
1.1.3.9.3.4 ID Decision	Provide fused data contact identification estimate.	SIAP
1.1.3.9.3.4.1 ID Determination Based on Associations	Determine identification based on association of multiple objects in a formation.	SIAP
1.1.3.9.3.4.2 Civilian Air Track Identification	Assess and identify air breathing tracks by combining existing sensor tracks and civilian/FAA flight plans and track position track reports.	SIAP
1.1.3.9.4 Procedural ID	Identify based on predetermined criteria or procedures.	SIAP
1.1.3.9.5 Organization Identification	Provide estimate of country/force identification from fused data.	SIAP
1.1.3.9.6 Resolve ID conflicts <sup>1</sup>	Use established criteria to eliminate identification conflicts.	SPAWAR
1.2 Command	Support and perform decision-making processes that effectively and efficiently direct the force(s) under command, and that support employment of offensive and defensive weapons.	SIAP
1.2.1 Common Situation Awareness	Generate a common tactical picture that provides awareness and provides the basis for and decision aids to develop new courses of action.	SIAP
1.2.1.1 Tactical Picture Generation	Fuse track, engagement, geographical, navigational, time synchronization, METOC, and operational data from multiple sources to form a display of the operational area to enhance situation awareness.	RDA CHENG
1.2.1.1.1 Assess the Current Situation and Signal Environment	Assess the current ELINT/SIGINT/IMINT environment for what that environment can imply in terms of threat unit, platform and weapon, status, location, movement, and availability.	SPAWAR
1.2.1.1.2 Associations Development	Develop hypotheses for associations between physical objects and their organizations. Associations are developed including convoys, targeteers, launchers, flights.	SIAP
1.2.1.1.3 Formation Tracking (Association)	Associate multiple closely spaced objects as a formation and represent those multiple objects as a single track.	SIAP
1.2.1.1.4 Operational Situation Interpretation	Analyze and fuse data in context of an evolving situation including weather, terrain, sea-state or underwater conditions, enemy doctrine, and socio-political considerations.	NAVAIR
1.2.1.1.5 Operational Situation Fusion	Fuse multi-source (kinematic, identification parametric and geographic) information.	SIAP
1.2.1.1.6 Event/Activity Aggregation	Establish relationships among diverse entities (ground, air and surface) in time to identify meaningful events or activities. Assumed to be a near-real time activity with both automation and man-in-the-loop.	SIAP
1.2.1.1.7 Management of Defended Assets Information Sets	Relatively rank and prioritize all aerospace and ground assets based on current situation and positions.	SIAP
1.2.1.1.8 Object Aggregation	Establish relationships among objects including temporal relationships, geometrical proximity, communications links, and functional dependence.	SIAP
1.2.1.1.9 Battle damage scene generation	Compile all source post-engagement data for display and analysis.	SIAP
1.2.1.1.10 Force Readiness Assessment	Fuse all resources into an overall assessment of readiness of war fighting capabilities of force.	SIAP
1.2.1.1.10.1 War fighting Resource Assessment	Assess status of all weapons, sensors, command and control nodes and networks including current loading, tasking, operational status, etc. Performance of predictive prevention of specific failure modes. Support the management of those resources.	SIAP
1.2.1.1.10.2 PCP Resource Assessment	Merge health and status of peer architecture and available (computing) resources within architecture. Assess network connecting peers. Assess performance of peer architecture.	SIAP
1.2.1.1.11 Commander's Intent Translation and Distribution	Translate and distribute Commander's Intent and Guidance into rule sets for support of real-time situational assessment or decision functions.	SIAP
1.2.1.2 Battle Damage Assessment	Assess the engagement of effectiveness of individual engagements based on individual reports from multiple sensors [SIAP WG 08/05/03] (aka Kill Assessment)	SIAP WG

Function	Definition	Definition Source
1.2.1.2.1 Evaluate/Assess Engagement Effectiveness	Evaluate all source post engagement information to determine efficacy of engagement.	SPAWAR
1.2.1.2.1.1 Assess Damage Reports	Evaluate reports which state determination of effect of attacks on targets.	SPAWAR
1.2.1.2.1.2 Estimate Extent of Collateral Damage	Predict and evaluate likelihood of damage from friendly weapons on personnel, equipment, and structures not intended for destruction.	SPAWAR
1.2.1.2.1.3 Estimate Extent of Target Damage/Destruction	Evaluate likelihood of destroying targets. Used to determine appropriate weapon system, time and manner of attack.	SPAWAR
1.2.1.2.2 Determine if Target is Functioning	Evaluate capabilities of a target to determine extent of damage from attack or ability of target to wage war against friendly forces.	SPAWAR
1.2.1.2.3 Record Events for Post Operations Analysis	Collect or store data to be used during post attack analysis and target generation.	SPAWAR
1.2.1.2.4 Retain/Remove Target on/from Target List	Evaluate targets to either remain on targeting list and be engaged at a later time, or, if target has been assessed as no longer valid, destroyed, or no longer of interest, removed from Target List.	SPAWAR
1.2.1.3 Alert Generation	Create visual or audible warning to indicate presence of new information of user defined importance.	RDA CHENG
1.2.1.3.1 Generate Engagement Orders	Build engagement order from weapon data base, including weapon selected, firing time, rear reference data, flight parameters, target geolocation, and waypoints. Transmit the order to the firing platform or weapon system.	SPAWAR
1.2.1.3.2 Schedule Engagement	Sort missions against weapon availability to generate engagement schedules. Adjust schedules based on changing relative threat value (RTV) and mission priorities.	SPAWAR
1.2.2 Plan	Allocate assets, determine coverage requirements, assign areas of responsibility, develop platform movement orders, and determine sensor and weapon system configurations required to execute a mission	RDA CHENG
1.2.2.1 Force Planning	Allocate assets to an operation and provide policies, resources, intelligence, indications and warnings (I&W), and threats to operation commanders.	RDA CHENG
1.2.2.1.1 Establish Force Reporting Criteria	Determine force reporting responsibilities and establish procedures for preparing reports from combat operations. Required reports address operational status of forces, weapons, and control system equipment, as well as range of intelligence information available to the war fighter.	SPAWAR
1.2.2.1.2 Generate Force Employment	Identify forces and their phasing into theater of operations. Provide force requirement determination, force list development and refinement in light of force availability, and force shortfall identification and resolution	SPAWAR
1.2.2.1.2.1 Allocate Platform to Mission	Identify and assign platforms to specific missions based on platform capabilities and mission requirements.	SPAWAR
1.2.2.1.2.2 Maintain Platform Status	Report on status of platforms in the functional area (e.g. logistics, communications, medical, etc.). Utilize database information and collaborate with functional units to ensure timely and accurate reporting of readiness status and to coordinate corrective actions for identified deficiencies.	SPAWAR
1.2.2.1.2.3 Map Force Composition to Requirements	Validate and coordinate user requirements to determine force composition.	SPAWAR
1.2.2.1.2.4 Plan Formations	Identify and assign multiple platforms/personnel and their distribution to specific missions based on combined platform/personnel capabilities and mission requirements.	SPAWAR
1.2.2.2 Operations Planning	Develop air, land, and sea coverage and control policies; Determine requirements for intelligence preparation of battle space; Assign areas of responsibility including sensor coverage and engagement zone requirements; Develop platform movement orders including selected platform, position, and routes.	RDA CHENG
1.2.2.2.1 Characterize Operational Environment	Collect and compile in-depth knowledge and intelligence information on battle space and its environment. This accounts for friendly and adversary capabilities and intentions, doctrine, and the environment in which operations will take place.	SPAWAR
1.2.2.2.2 Evaluate Operational Environment	Evaluate Operational Environment defines and quantifies objectives that will contribute to accomplishment of Commander's operation/campaign objectives.	SPAWAR
1.2.2.2.3 Determine Operational and Tactical Assets	Determine operational and tactical asset requirements given target development information coordinates and event time for that location.	NAVAIR
1.2.2.2.4 Evaluate Threat	Evaluate latest intelligence (threat) information concerning location and capability of enemy forces to plan the safest routes for mission completion.	SPAWAR
1.2.2.2.5 Develop Enemy Order of Battle (EOB)	Determine identification, strength, command structure, and disposition of personnel, units, and equipment of enemy's military force.	SPAWAR
1.2.2.2.6 Generate Correction/Contingency Plans	Create and update operational plans (OPLANS), concept OPLANS (CONPLANS), and functional plans.	SPAWAR
1.2.2.2.7 Identify Status of Forces	Identify manpower resources and provide status and progress of mobilization. Provide operational plan (OPLAN) visibility of mobilization.	SPAWAR

Function	Definition	Definition Source
1.2.2.2.7.1 Generate Manpower Requirements	Develop course of action (COA) using deployment databases as primary means for exchanging detailed planning information and developing tentative COAs, evaluate adequacy of each COA, create force lists and support packages, estimate transportation feasibility of each COA, and begin to prepare deployment estimates for recommended COA.	SPAWAR
1.2.2.2.7.2 Identify Shortfalls and Deficiencies	Determine impact of military support for civil defense; capability to support OPLANs; force operational readiness based on manpower availability and dates needed; manpower shortfalls; and manpower feasibility of OPLANs.	SPAWAR
1.2.2.2.8 Perform Vulnerability Analysis	Perform analysis which identifies characteristics of a military force/system that causes it to suffer degradation in its capability to perform a mission as a result of having been subjected to a certain level of effects in a hostile environment.	SPAWAR
1.2.2.2.8.1 Calculate EMI Impacts	Model and analyze all Electronic Warfare (EW) functions to include propagation, radio line of sight, self-protect jamming, standoff jamming (communications and non-communications), Electronic Support (ES) vulnerability and effectiveness, expendables effectiveness (chaff and flares), decoy effectiveness (active and passive), SEAD, acquisition and tracking (radar, electro-optical and infrared), clutter effects, satellite coverage and link analysis, missile flyout (effects of countermeasures), effects of evasive maneuvers, C3 processes, EP, and effects of lethal attack on critical C3 nodes.	SPAWAR
1.2.2.2.8.2 Determine EMSIG Vulnerability	Determine effective electronic masking of military equipment being used in or supporting the operation; including assessment of: 1) assessed adversary Electronic Support (ES) and Signal Intelligence (SIGINT) collection capability (or access to third party collection); and 2) degree to which electronic signature of forces must be masked in order to accomplish assigned mission.	SPAWAR
1.2.2.2.8.3 Determine Information Operations (IO)-Defend Vulnerability	Identify potential IO threats to the fielded forces, which can then be used to develop a plan to respond to or restore capabilities from an adversary or potential adversary's attacks or intrusions.	RDA CHENG
1.2.2.2.9 Plan OPORD / OPTASK / OPLAN Inputs	Conduct joint planning to determine best method of accomplishing assigned tasks and direct actions necessary to accomplish mission. In peacetime conditions, the process—called deliberate planning—produces operation plans, either OPLANs or concept OPLANs.	SPAWAR
1.2.2.2.9.1 Identify Joint Engagement Zone	Identify JEZ involving one or more service components, simultaneously and in concert, engaging enemy airpower in the same airspace; including friendly, neutral, and enemy aircraft. Develop coordinated allocation of air defense systems to avoid duplication of effort.	SPAWAR
1.2.2.2.9.2 Identify No-Fly Zones	Overlay operational data on a map to depict locations of targets, location of enemy and other information required in order to make targeting decisions. Configure, edit and display No-Fly Zones.	SPAWAR
1.2.2.2.9.3 Identify Restricted Navigation Zones	Overlay operational data on a map to depict locations of targets, location of enemy and other information required in order to make targeting decisions. Configure, edit and display Restricted Navigation Zones.	SPAWAR
1.2.2.2.9.4 Identify Return to Force Profiles	Develop return to force profile to identify returning mission plan for friendly aircraft.	SPAWAR
1.2.2.2.9.5 Identify Weapons Free Zones	Overlay operational data on a map to depict locations of targets, location of enemy and other information required in order to make targeting decisions. Configure, edit and display Weapon Free Zones.	SPAWAR
1.2.2.2.9.6 Plan Air Space Utilization	Develop joint air and space strategy and assess its effectiveness in supporting the theater campaign. The developed Joint Air and Space Operations Plan (JASOP) is the vehicle through which JFACC articulates and disseminates its strategy.	SPAWAR
1.2.2.2.9.7 Plan Water Space Utilization	Develop water space utilization procedures, guidelines and directions that provide for carrying out mission plans and includes appropriate maritime platform (e.g. ships, submarines, and any other sea surface and/or subsurface crafts) protection and deconfliction.	SPAWAR
1.2.2.2.9.8 Identify Fires and Maneuvers Plans	Integrate planned maneuvers and fires of ground forces into high level guidance to assist in deconfliction and fratricide prevention planning by Joint and Operational forces.	NAVAIR
1.2.2.2.10 Retrieve and Review Rules of Engagement	Access/retrieve ROE data including Joint Forces Commander (JFC) and Component commander intentions, guidance, and ROE for user review.	SPAWAR
1.2.2.2.11 Retrieve and Review Higher Level Guidance	Access and or retrieve Higher Level Guidance data including ROE, LOAC, Joint Forces Commander (JFC) and Component Commanders objectives, intentions and guidance for user review.	NAVAIR
1.2.2.2.12 Identify ROE Cues	Generate supplemental ROE (SROE) requests based on changing threat or mission. Assist in interpreting SROE and existing ROE for CJTF, JTF staff, and component commands.	SPAWAR

Function	Definition	Definition Source
1.2.2.3 Mission Planning	Develop plans to include route generation, airspace control policies, I&W, terrain and threat information necessary to conduct missions in accordance and coordination with high level guidance such as the Air Tasking Order (ATO)	NAVAIR
1.2.2.3.1 Generate Input to Mission Plans	Using format assigned in JTF OPORDs, generate inputs to mission plans based on analysis, and higher authority guidance.	SPAWAR
1.2.2.3.1.1 Define Return to Force Profiles	Define specific RTF profile information to include course, altitude, waypoint, low fuel procedures, loss of comms procedures, and clearance procedures.	SPAWAR
1.2.2.3.1.2 Determine Best Positioning for Access to the Adversary	Using available weapon, environmental, topographic, geopolitical, and platform information, generate a recommended platform positioning for a given mission.	SPAWAR
1.2.2.3.1.3 Generate Attack Plans	Using format assigned in JTF OPORDs, generate attack plan for a given strike mission. Plan will include, but not be limited to, asset assignment, route plan, secondary missions, support asset assignment, assigned communications and data frequencies, threat information, and RTF criteria.	SPAWAR
1.2.2.3.1.4 Ingress/Egress Routes	Define ingress/egress routes for aircraft assigned to a strike mission accounting for both 4D Deconfliction and threat analysis.	SPAWAR
1.2.2.3.1.5 Generate Mission Analysis	Using all available IPB sources, build an analysis of the mission to be conducted including potential threat to strike platforms, logistics requirements, value of target vs. value of weapons required, impact on other concurrent missions, and required force allocations.	SPAWAR
1.2.2.3.1.6 Produce intelligence/IPB Products	In the format required by JTF OPORDs and OPTASKs, create intelligence products which refine raw intelligence data into processed analysis products supporting the tasked mission.	SPAWAR
1.2.2.3.1.6.1 Calculate Probabilities for Potential Actions	Based on review of current intelligence, O212 known enemy order of battle, terrain analysis, geopolitical situation, and existing analysis of threat TTP, calculate and weigh probabilities for most likely enemy courses of action.	SPAWAR
1.2.2.3.1.6.2 Generate I&W information	In the format required by JTF OPORDs and OPTASKs, generate I&W reports, templates, and information to support mission. I&W information may be either data or voice as appropriate.	SPAWAR
1.2.2.3.1.6.3 Generate Intelligence Product Update Requests	Based on review by the Operational or Mission Commander, generate request to update information forwarded in previous intelligence or IPB products.	SPAWAR
1.2.2.3.1.6.4 Perform Terrain Analysis	Analyze using IMINT and existing topographic information current target area terrain condition. Analysis includes changes to topography resulting from recent environmental and man created events.	SPAWAR
1.2.2.3.2 Sensor Planning	Allocate specific sensors to coverage areas, frequencies, and targets based on generated sensor performance predictions.	SPAWAR
1.2.2.3.2.1 Generate EMSIG Scenarios	Document electronic emanation from target for future references and analysis.	SPAWAR
1.2.2.3.2.2 Generate Sensor Coverage	Determine number and placement of sensors to provide needed coverage based on geographical areas and volumes to be sensed, environmental conditions, sensor-platform capabilities, and expected enemy behavior.	SPAWAR
1.2.2.3.2.2.1 Maintain Sensor Configuration Data	Track changes to software, hardware, firmware and documentation for a system.	SIAP
1.2.2.3.2.2.2 Predict Sensor Performance/Calculate Sensor Coverage	Using models and/or simulations, predict performance and coverage of a system based on environmental conditions, clutter, background noise, and sensor geometry.	SPAWAR
1.2.2.3.2.2.3 Calculate Sensor Error/Uncertainty	Using sensor location error, beam pattern dimensions, pointing, and biases, determine resulting error/uncertainty in target location.	SPAWAR
1.2.2.3.2.2.4 Generate National ISR Sensor Tasking	Program national sensors for collection and identification of Intelligence, Surveillance and Reconnaissance information.	SPAWAR
1.2.2.3.2.2.5 Generate Theater/External ISR Sensor Tasking	Program theater/external sensors for collection and identification of Intelligence, Surveillance and Reconnaissance information.	SPAWAR
1.2.2.3.3 Target/Threat Planning	Determine validity, importance and location of a contact of interest. Calculate requirements, both time and accuracy, to refine geolocation. Focus is on target's functional characteristics and the effects that must be applied to target to degrade its functionality.	SPAWAR
1.2.2.3.3.1 Analyze Target Area	Analyze target area, e.g., terrain analysis, roadways, structures, distribution of civilians, threats, etc., and impacts on ability to support target development, execution and neutralization.	SPAWAR
1.2.2.3.3.1.1 Correlate Threat Data	Correlate data from all available sensors to develop single, coherent threat PVA.	SPAWAR
1.2.2.3.3.1.2 Mensurate Image	Match significant features in a received image to locations for those features in a validated database. Determine offsets and locations for targets of interest in the received image via image evaluations consisting of geopositioning parameters, distance calculations, azimuth, aim point generation, image annotation and finished product generation.	NAVAIR

Function				Definition	Definition Source
			1.2.2.3.3.1.2.1 Determine Asset Requirements Given Mensuration Parameters	Determine asset requirements given target development information coordinates and time for that location [target information may be aggregated in an Electronic Target Folder (ETF)].	SPAWAR
			1.2.2.3.3.1.2.2 Determine Time Requirements Given Mensuration Parameters	Determine time requirements given target development information coordinates and time for that location [target information may be aggregated in an Electronic Target Folder (ETF)].	SPAWAR
			1.2.2.3.3.1.3 Perform Threat Assessments	Analyze, using all available intelligence, the threat specific to a given mission, and generate EOB relative to mission.	SIAP
			1.2.2.3.3.2 Plan Target-Weapon Type Pairing	Plan weapons allocation to planned targets based upon target prioritization and analysis of the target area.	SIAP
			1.2.2.3.3.3 Select and Prioritize Targets	Identify, prioritize, and select specific targets from joint target lists, component requests, intelligence recommendations, electronic warfare inputs, and current intelligence assessments that meet the Commander's objectives and guidance.	SIAP
			1.2.2.3.3.3.1 Identify Target System Vulnerability	Analyze capabilities and limitations of a target system to a specific or potential threat to determine the level of risk the system may encounter from exploitation or destruction from an opposing force.	SPAWAR
			1.2.2.3.3.3.2 Maintain Target List	Update tabulation of confirmed or suspect targets performed by any echelon for informational and fire support planning purposes.	SPAWAR
			1.2.2.3.3.3.3 Identify Time Sensitive Targets	Specify Time Sensitive Targets with command priority within the area of operations, including a list of expected targets. Coordinate intelligence data to locate and identify TCTs.	SPAWAR
			1.2.2.3.4 Weapons Planning	Plan a weapon's effective launch parameters, define necessary state of launch platform to support those launch parameters, and develop and format data suitable for downloading into weapon that will enable it to achieve desired performance.	SPAWAR
			1.2.2.3.4.1 Determine Engagement Options and Generate Weapons Employment	Based on commander's tactical intent for degradation of a specific target or target complex, evaluate, prioritize and select from available lethal and non-lethal tactics to comply with intent.	SIAP
			1.2.2.3.4.1.1 Calculate Probability of Damage	Document expected performance of weapon-related systems, expected threat and target postures, and expected environmental conditions, predict effectiveness of weapon to produce desired physical damage, and/or degradation of target's function.	SPAWAR
			1.2.2.3.4.1.2 Conduct Target to Weapon Pairing (Tactical)	Accounting for target type, course, speed, altitude, and range, evaluate and assign optimum weapon available to destroy or mission kill a site/platform.	SPAWAR
			1.2.2.3.4.1.3 Determine Weapon Availability	Determine availability of weapons and delivery platforms to support assigned mission, including distance/time issues and opportunity costs.	SPAWAR
			1.2.2.3.4.1.4 Generate Weapons Recommendations	Send weapon-target pairing and tasking recommendation to commander for force employment decision and command.	SPAWAR
			1.2.2.3.4.1.5 Identify Weapon Control Parameters	Determine parameters required for effective delivery and function of the weapon, including parameters of weapon's internal systems (autopilot, sensors, fusing, etc.), platform's navigation and maneuvering systems, platform's weapon specific control system.	SPAWAR
			1.2.2.3.4.2 Generate Weapon Mission Plans	Produce weapon mission plans that support or meet the applicable overall mission objectives given weapon characteristics.	SPAWAR
			1.2.2.3.4.2.1 Define Weapons Search Envelope	As an optional transition between the navigation/flight plan and the terminal guidance plan, define a coordinated flight plan and terminal seeker operation plan to support a search for a target whose location indeterminacy is larger than the seeker's field of view.	SPAWAR
			1.2.2.3.4.2.2 Deliver Weapon Mission Plan	Deliver weapon mission plan or updates to the weapon mission plan from the mission planning to appropriate weapon on appropriate platform.	SIAP
			1.2.2.3.4.2.3 Generate In-Flight Weapon Plan Changes	Based on conditions and parameters that have changed since the weapon mission plan was created, update one or more elements of the mission plan. Format this plan and integrate with other planning elements as appropriate for delivery to the weapon.	SPAWAR
			1.2.2.3.4.2.4 Generate Weapon Navigation/Flight Plan	Select a weapon launch point and plan suitable waypoints, altitudes, and other appropriate parameters to manage fuel/energy of weapon, keep clear of terrain, avoid air defense threats and approach the target area in a profile that supports the terminal guidance plan. Format this plan and integrate with other planning elements as appropriate for delivery to the weapon.	SPAWAR
			1.2.2.3.4.2.5 Generate Weapon Terminal Guidance Plan	In coordination with target planning and weapon navigation/flight planning, define the weapon's terminal approach time/space profile, and supply any necessary reference data to support terminal guidance, including data link configuration, impact/penetration point and direction, and fuzing for warhead penetration or proximity, to maximize desired weapon effects at the aim point. Format this plan and integrate with other planning elements as appropriate for delivery to the weapon.	SPAWAR

Function	Definition	Definition Source
1.2.2.3.5 Situation Prediction	Estimate and predict effects on situations of planned or estimated/predicted actions by the participants; to include interactions between action plans of multiple players.	SIAP
1.2.2.3.5.1 Enemy Capability Estimation	Estimate size, location, and capabilities of enemy forces.	ISIF 1999
1.2.2.3.5.2 Identify Threat Opportunities	Identify potential opportunities for enemy threat based on prediction of enemy actions, operation readiness analysis, friendly vulnerabilities, and analysis of environmental conditions.	ISIF 1999
1.2.2.3.5.3 Multi-Perspective Assessment	Analyze data from red, white, and blue perspectives.	ISIF 1999
1.2.2.3.5.4 Offensive/Defensive Analysis	Predict results of hypothesized enemy engagements considering rules of engagement, enemy doctrine, and weapon models.	ISIF 1999
1.2.2.3.5.5 Predict Enemy Intent	Determine enemy intention based on actions, communications, and enemy doctrine.	ISIF 1999
1.2.2.3.5.6 War fighting Resource Prediction	Predict weapon, sensor and war fighting unit readiness based on current status information. In addition, predict sensor or weapon performance based on present and forecast environmental conditions.	RDA CHENG
1.2.2.3.5.7 Environmental Prediction	Assess current and historical atmospheric and oceanographic conditions and generate predictions of future conditions.	SIAP
1.2.2.3.5.7.1 Generate Operational METOC Assessments	Produce Meteorological and Oceanographic (METOC) weather forecasts, warnings, gridded field data, satellite imagery, briefing symbology, and observations. The analysis includes weather information linked with weapons thresholds to determine feasibility of employing specific munitions, and includes the use of wind, cloud, precipitation, temperature, smoke, etc., data.	SPAWAR
1.2.2.3.5.7.1.1 Calculate Environmental Impacts	Calculate environmental impacts from munitions employment using wind, cloud, precipitation, temperature, smoke, etc., data.	SPAWAR
1.2.2.3.5.7.1.2 Determine EMI Impact	Determine EMI impacts from munitions employment using wind, cloud, precipitation, temperature, smoke, etc., data.	SPAWAR
1.2.2.3.5.7.1.3 Forecast Weather/Predict Oceanographic	Forecast weather/predict oceanographic environment using weather data from multiple sources.	SPAWAR
1.2.2.3.5.7.1.4 Predict METOC Dispersion	Predict METOC dispersion using wind, cloud, precipitation, temperature, smoke, etc., data.	SPAWAR
1.2.2.4 Mission Modeling/Simulation	Model/simulate mission scenarios to include enemy, war-gaming, and logistics and to predict probability of kill, probability of friendly platform survivability	RDA CHENG
1.2.2.4.1 Conduct Simulation/Modeling of Mission	Model and simulate mission operational impact at the force-level.	SPAWAR
1.2.2.4.1.1 Calculate Logistics Scenarios	Provide logistics feasibility/capability assessments to deliberate and crisis action plans. Consolidate, report, and access unit readiness statistics and logistics situation reports as required and provide planning and force apportionment personnel access to the availability of forces in support of deployment and redeployment operations.	SPAWAR
1.2.2.4.1.2 Calculate War gaming Scenarios	Create war gaming scenarios based on COA analysis. Scenarios include available weapons systems, both immediately available and those forecast in Air Tasking Order (ATO) for an operator defined time parameter that may be employed against a TCT.	SPAWAR
1.2.2.4.1.2.1 Estimate Weapons Effectiveness	Develop and calculate the following weapon-associated outputs: time-on-target (TOT) predictions; probability of Kill (Pk); probability of Survivability (Ps) of the weapon system; recognize existing Airspace Control Measures (ACMs) impacting COAs; and identify ACMs that need to be implemented in order to complete the attack.	SPAWAR
1.2.2.4.1.2.2 Generate Hit/Impact Probability CEP/PK/PEK	Calculate munitions effectiveness parameters including Circular Error Probable, Probability of Kill, and Probability of Electronic Kill.	SPAWAR
1.2.2.4.1.2.3 Plot CBR Contamination Areas	Provide defense planning for force operations in an CBR environment. Some of the planning considerations include enemy CBR capabilities; friendly CBR defensive capabilities; shipment, intra-theater receipt, pre-positioning, and accountability of CBR defense equipment; and procedures and responsibilities for furnishing CBR defensive logistics support. The process will be integrated with the CBR Detection and Warning System and coordination will be with the NBC Cell.	SPAWAR
1.2.2.4.1.3 Generate Enemy Scenarios	Develop a battle space visualization of national guidance (especially the Joint Strategic Capabilities Plan [JSCP]), as well as the CINC's evaluation of assigned regional area of responsibility (AOR) to create enemy scenarios and enemy courses of action.	RDA CHENG
1.2.2.4.2 Mission Rehearsal	Electronic simulation of planned information to rehearse missions, resource performance characteristics and routes using terrain, operational events and threat representations.	NAVAIR
1.2.3 Decision	Support development of engagement orders including threat prioritization, development of fire control solutions, target-weapon pairing and dynamic deconfliction.	RDA CHENG

Function	Definition	Definition Source
1.2.3.1 Target Development	Generate controls, orders, and target folder information required by platforms, and fire control systems and weapon launchers in order to direct weapons to the target.	SPAWAR
1.2.3.1.1 Acquire and Track Target	Detect, identify, and locate a target in sufficient detail to permit effective employment of weapons and recording of successive positions of a moving object.	SPAWAR
1.2.3.1.1.1 Analyze Target Areas	Analyze target area, e.g., terrain analysis, roadways, structures, distribution of civilians, threats, etc., and impacts on ability to support target development, execution and neutralization.	SPAWAR
1.2.3.1.1.2 Determine Moving Target Intercept Points	Calculate point at which a weapon system is vectored or guided to complete an interception.	SPAWAR
1.2.3.1.1.3 Determine Target Location	Specify coordinates of a target in sufficient detail to permit effective employment of weapons.	SPAWAR
1.2.3.1.1.4 Predict Target Future Movements	Calculate movements by taking into account target acceleration/deceleration, change of altitude, and direction, and atmospheric conditions.	SPAWAR
1.2.3.1.1.5 Refine Aim point Location	Continuously improve various prediction methods to narrow the target interception field.	SPAWAR
1.2.3.1.2 Designate Target	Select targets and match appropriate response to them, taking account of operational requirements and capabilities.	SPAWAR
1.2.3.1.3 Process Targeting Options	Examine potential targets to determine military importance, priority of attack, and weapons required to obtain a desired level of damage or casualties.	SPAWAR
1.2.3.1.4 Employ Targeting Assets	Use available resources assigned to a specific object for the purpose of detection, identification, and location of a target in sufficient detail to permit effective employment of weapons.	SPAWAR
1.2.3.1.4.1 Task/Re-task Targeting Assets	Program target resources and augment/diminish same as circumstances warrant.	SPAWAR
1.2.3.1.4.2 Transmit Tasking and Target Data to Targeting Assets	Transmit (over appropriate communications channels using appropriate communications protocols) weapon tasking and target information to assets directed to employ weapons against targets.	SPAWAR
1.2.3.1.5 Assign Sensor/Target/Weapon Pairings	Task subordinate units or direct weapon systems to engage, track, cover, or destroy an assigned target.	SPAWAR
1.2.3.1.5.1 Optimize Target Value vs. Weapon Value	Utilize type of resources consistent with target's importance.	SPAWAR
1.2.3.1.5.2 Calculate Weapons Performance	Produce an estimate of weapons destructive effect against specified target.	SPAWAR
1.2.3.1.5.3 Engagement Optimization	Enhance probability of kill by choosing appropriate weapon to fulfill desired outcome of attack based on required targeting parameters and known target location.	SIAP
1.2.3.1.5.3.1 Calculate Probability of Kill	Produce numerical probability that weapon will negate target.	SIAP
1.2.3.1.5.3.2 Produce Engagement Schedules	Delineate targets on which fire is to be directed at a specific time in accordance with established rules.	SIAP
1.2.3.1.5.4 Optimize Weapon Accuracy Relative to Target Location Error	Enhance probability of kill by choosing appropriate weapon to fulfill desired outcome of attack based on required targeting parameters and known target location.	SPAWAR
1.2.3.1.5.5 Calculate Hit Probability Relative to Target Location Error	Produce numerical probability that weapon will hit target using target location error as a factor in the hit probability determination.	SPAWAR
1.2.3.1.5.6 Select Appropriate Lethal/Non-Lethal Attack System	Determine the quantity of a specific type of lethal or non-lethal weapons required to achieve a specific level of damage to a given target, considering target vulnerability, weapon effect, munitions delivery accuracy, damage criteria probability of kill and weapons reliability.	SPAWAR
1.2.3.1.5.7 Determine Availability of	Provide current list of weapons that can be used for attack missions.	SPAWAR
1.2.3.1.5.8 Select Best Attack Asset	Select attack assets that will generate appropriate response and desired outcome taking into account operational requirements and threat capabilities.	SPAWAR
1.2.3.1.5.8.1 Determine Accessibility of Attack System to Target	Produce probability that attack system can get to a position to launch a successful attack on a specified target.	SPAWAR
1.2.3.1.5.8.2 Determine Availability of Attack Platform	Produce platform availability status from force platform capability, use, and maintenance status information.	SPAWAR
1.2.3.1.5.8.3 Generate Attack Window	Produce time window of opportunity for attack platform to attack target with highest probability of success.	SPAWAR
1.2.3.2 Dynamic Deconfliction	Incorporating real-time track data, topography, platform route, weapons envelope, and current platform locations, evaluate the use of a selected weapon in order to determine potential interference or conflicts with other platforms or weapons in vicinity of engagement path.	RDA CHENG
1.2.3.2.1 Engageability Determination	Evaluate engagement conditions to determine probability of engagement success. This includes evaluating allied capabilities against enemy capabilities.	SPAWAR

Function		Definition	Definition Source
	1.2.3.2.1.1 Evaluate Weapons Intercept Volume	Evaluate whether or not threat is within engagement volume of interceptor.	SIAP
	1.2.3.2.1.2 Develop Intercept Prediction	Determine probability of intercept of target.	SPAWAR
	1.2.3.2.2 Certify Data Availability	Evaluate continuity and accuracy of a track over engagement timeline of weapons based on terrain, sensor locations, network resources and sensor resources.	SIAP
	1.2.3.3 Mission Control	Generate controls and inputs necessary to control the employment of the force weapons, sensors and platforms.	SPAWAR
	1.2.3.3.1 Configure Assets for Specific Missions	Develop asset configuration recommendations to include weapon, fuel load outs and sensor and protective system configurations based on mission plan inputs.	SPAWAR
	1.2.3.3.1.1 Implement Configuration	Transmit sensor and communications configuration orders.	SPAWAR
	1.2.3.3.1.1.1 Transmit Alert/Sequencing Doctrine	Translate alert and alert sequencing doctrine as appropriate for each unit into command and decision systems for specific units.	SPAWAR
	1.2.3.3.1.1.2 Transmit Coverage Plan	Generate orders to allocate sensors and platforms to assigned coverage areas.	SPAWAR
	1.2.3.3.1.1.3 Transmit Tactical Parameters	Generate orders to align tactical weapon, sensor and ECM systems to assigned parameters.	SPAWAR
	1.2.3.3.1.2 Optimize Configuration	Evaluate conditions and equipment performance data to optimize the performance and coverage assignments of available assets.	SPAWAR
	1.2.3.3.1.3 Assign Coverage	Evaluate system capabilities and Platform PVA data to generate coverage assignments.	SPAWAR
	1.2.3.3.1.4 Sensor Operating Parameter's Control	Generate sensor configuration and reconfiguration commands to adjust sensor coverage, wavelength, power, pulse type, spectrum range, rotation, and reporting frequency as required.	SPAWAR
	1.2.3.3.2 Position Assets IAW Mission Plans	Generate and update movement orders for units engaged in a given mission.	SPAWAR
	1.2.3.3.3 Recommend Attack/Evasive Maneuvers	Evaluate threat information, friendly platform and weapon system capabilities and limitations, current PVA data for all co-located tracks, and threat system vulnerabilities to generate and update maneuver recommendations.	SPAWAR
	1.2.3.4 Mission Coordination	Process and maintain a visual display reflecting status of units engaged in a mission. Provide information exchange between mission commanders and mission units.	SIAP
	1.2.3.4.1 Coordinate Mission Execution	Build coordination and tactical status displays, overlays and reports using data from all units involved in a mission. Communicate coordination information, instructions and orders to all units.	SPAWAR
	1.2.3.4.1.1 Plan Communication Networks	Based on environment, requirements and assets, calculate optimum alignment of available communications assets to requirements.	SPAWAR
	1.2.3.4.1.2 Identify Weapon Danger Zones	Build Weapon Danger Zones overlays surrounding weapons platforms for both real time and non-real time pictures.	SPAWAR
	1.2.3.4.2 Monitor Mission Execution	Calculate status of all units, incorporate all linked data, and build displays to enhance tactical situational awareness.	SPAWAR
	1.2.3.4.3 Mission Deconfliction	Develop and monitor execution of plan to maintain minimum separation required between own force units to prevent fratricide.	SPAWAR
	1.2.3.4.3.1 Develop 4-D Deconfliction Plan	Incorporating the ATO, real-time track data, topography, air route, threat weapons envelope, and current ground unit location, generate a plan to maintain minimum separation between aircraft, missiles, and artillery.	SPAWAR
	1.2.3.4.3.1.1 Coordinate Blue-On-Blue Deconfliction Procedures	Generate overlays, and procedure reports to prevent blue on blue engagements. Communicate procedures to all units.	SPAWAR
	1.2.3.4.3.1.2 Recommend Maneuvers to Avoid Interference	Generate maneuver recommendations for friendly units from real time sensor data and PVA data for all tracked contacts. Display recommendations and required alerts at appropriate locations.	SPAWAR
	1.2.3.4.3.1.3 Synchronize Tactics	Incorporate approved plans, current situation, and position, velocity, acceleration (PVA) data, and target nominations to generate recommendations to prevent multiple unit assignments to single targets.	SPAWAR
	1.3 Act	Deploy, maneuver, sustain, and/or configure, platforms, troops, cargo, sensors, and weapons and to execute engagements.	RDA CHENG
	1.3.1 Mission Execution	Generate controls and orders necessary to support and collect information needed to evaluate efficacy of an engagement.	SPAWAR
	1.3.1.1 Integrate ROE	Follow directives issued by competent military authority which delineate circumstances and limitations under which United States forces will initiate and/or continue combat engagement with other forces encountered.	Unknown
	1.3.1.2 Direct Maneuvers to Avoid Interference	Promulgate commands to forces or weapons systems to prevent contact with hostile forces or weapons systems.	SIAP
	1.3.1.3 Employ Combat Assessment/BDA-Support Assets	Utilize Battle Damage Assessment (BDA) assets to collect and analyze damage done to enemy by friendly forces.	SPAWAR
	1.3.1.3.1 Select Optimum Combat Assessment Support System	Select best systems to carry out BDA support.	SPAWAR

Function	Definition	Definition Source
1.3.1.3.2 Task/Re-task Combat Assessment Support Assets	Request Combat Assessment assets to collect, analyze and assess attack results. Assign platforms to assessment tasks or reassign assets as required.	SPAWAR
1.3.1.3.3 Transmit Tasking and Target Data to BDA Assets	Send Combat Assessment requests via appropriate communications channels.	SPAWAR
1.3.2 Engagement Execution	Generate controls, plans, and orders to platforms, fire control systems and weapon launchers enabling engagements on specified targets.	SPAWAR
1.3.2.1 Specify Required Effects	Determine acceptable level of target destruction to accomplish mission objectives.	SPAWAR
1.3.2.1.1 Determine Time to Complete the Mission	Estimate total time required to execute engagement, compute time to target and time when engagement will be completed or time when assets are released.	SPAWAR
1.3.2.1.2 Specify Collateral Damage Considerations	Using ROE, commander's guidance, weapon effectiveness and targeting errors, determine extent of collateral damage.	SPAWAR
1.3.2.1.3 Specify Time on Target	Compute time from start of mission execution to time of ordinance on target.	SPAWAR
1.3.2.2 Manage Hardkill/Softkill Coordination and Control	Determine mission objective, select appropriate weapon to achieve acceptable level of destruction and control of weaponry for engagement.	SPAWAR
1.3.2.2.1 Conduct Inter-Platform Scheduling	Control coordination of platforms involved in the engagement.	SPAWAR
1.3.2.2.2 Conduct Intra-Platform Deconfliction	Display and coordinate all weapon trajectory/ flyout routes to ensure acceptable level of separation between platforms.	SPAWAR
1.3.2.2.3 Manage Weapon Hand-over	Transition weapon from manual to automatic/ preset control.	SPAWAR
1.3.2.2.4 Select Air to Air	Select A-A weapon based on target type, level of destruction, and protective measures of the platforms in the engagement.	SPAWAR
1.3.2.2.5 Select Air to Surface	Select A-S weapon based on target type, level of destruction, and protective measures of the platforms in the engagement.	SPAWAR
1.3.2.2.6 Select Surface to Air	Select S-A weapon based on target type, level of destruction, and protective measures of the platforms in the engagement.	SPAWAR
1.3.2.2.7 Select Surface to Surface	Select S-S weapon based on target type, level of destruction, and protective measures of the platforms in the engagement.	SPAWAR
1.3.2.3 Task/Re-task Attack Assets	Assign platforms to engagement tasks or reassign assets as required.	SPAWAR
1.3.2.4 Transmit Tasking and Target Data to Attack Assets	Communicate tasking and target status to attack platforms.	Unknown
1.3.2.5 Prepare Weapon for Launch	Configure the internal systems of the weapon to the point of readiness for launch, including application of external power, initiation of internal power sources, software configuration through the loading of mission plans, including required data for navigation, terminal guidance, and payload function, setting of software switches, application of AC or DC signal voltages, and transfer alignment of navigational instruments including GPS and INS subsystems.	Unknown
1.3.2.6 Weapon Initialization and Launch	Configure the internal systems of the weapon to the point of readiness for launch; Launch weapon.	RDA CHENG
1.3.2.6.1 Generate WILCO/CANTCO	Generate response to fire control orders based on the current ability of weapon system to execute command.	Unknown
1.3.2.6.2 Compute Fire Control Solution	Employ dedicated computer-based fire control systems to arrive at Fire Control Solution for specified target.	SPAWAR
1.3.2.6.2.1 Create Firing Instructions	Execute engagement firing plans by developing weapon presets.	SPAWAR
1.3.2.6.2.2 Transmit Firing Order to Selected Attack Systems	Communicate firing instructions to applicable engagement platforms.	SPAWAR
1.3.2.6.3 Determine Engageability	Evaluate engagement conditions to determine probability of engagement success. This includes evaluating allied capabilities against enemy capabilities.	SPAWAR
1.3.2.6.3.1 Calculate Weapon Delivery	Determine weapon usage, platform requirements, and weapon effects for engagement.	SPAWAR
1.3.2.6.3.2 Determine Attack Window	Determine time frame in which to conduct engagement.	SPAWAR
1.3.2.6.3.3 Develop Intercept Prediction	Determine target location and probability of interception of the target.	SPAWAR
1.3.2.6.4 Execute Weapons Launch	Following navigation of the launch platform to an appropriate weapon launch/release condition, completion of platform launch readiness and safety checks, and preparation of weapon for launch. Initiate any weapon thrust and/o autopilot systems, initiate autonomous navigation and/or guidance systems, and release weapon from the launch platform for free flight. Perform any post-launch operations or maneuvers required of the platform for safety or survivability.	SPAWAR
1.3.2.7 Fire Control	Following weapon launch, provide weapon control, target/navigation updates, and other actions to support the weapon during flight, including deployment of penetration aids or jamming.	SIAP

Function	Definition	Definition Source
1.3.2.8 Support Weapon Flyout	Following weapon launch, provide any necessary support and/or interaction necessary to support the weapon in its mission, including deploying penetration aids such as jamming or decoys. Provide post-launch weapon control, target/navigation updates, and weapon initiation via data link as required.	
1.3.2.9 Illumination	Support interceptor fly-out of semi-active systems requiring target illumination for terminal guidance.	SIAP
1.3.2.10 Intercept	Stop, deflect, or interrupt progress or intended course of a specified threat.	RDA CHENG
1.3.2.11 Direct Attack/Evasive Maneuvers	Execute plan of engagement and conduct evasive maneuvers as required to egress target. Select and launch countermeasures to support executed evasive maneuvers.	SPAWAR
1.3.2.12 Execute Electronic Protection	Deploy/activate electronic deception escape and evasion systems.	SPAWAR
1.3.2.13 Battle Damage Indication	Provide indication of engagement outcome (e.g., kill, no-kill, interceptor self-destruct).	SIAP
1.3.2.14 Electronic Attack	Deliberate emission of electronic radiation for the purpose of jamming or deception.	RDA CHENG
1.3.3 Engagement Development	Generate controls, orders, and threat evaluation for Air Targets required by platforms, and fire control systems and weapon launchers in order to direct weapon to target.	SIAP
1.3.4 Force Positioning	Place individual weapon launch and/or control assets in required posture to deliver weapon and return to base or host platform, with mission effectiveness, and ability to fight another day.	SPAWAR
1.3.4.1 Platform Transport	Place weapon launch and/or control platform in required posture to deliver weapon and return to base or host platform, with mission effectiveness, and ability to fight another day.	SPAWAR
1.3.4.1.1 Launch/Control Asset Movement Coordination	Navigate the weapon launch or control platform from its host platform to its weapon delivery and/or control point(s) and back to the host platform, in a manner that maximizes mission affordability, platform/weapon survivability (vs. terrain and threats,) coordination with support assets, and minimal interference with other ongoing operations.	SPAWAR
1.3.4.1.2 Launch/Control Weapon Mission Coordination	Coordinate flight paths, joining times, and Comms plans, to ensure proper support of the weapon delivery mission with: 1) Support assets such as tankers, fighter cover, EW support, etc.; 2) Other mission elements such as weapon controllers or launchers, ground or aircraft-based target designators, etc.; 3) Other missions operating in the area, airspace controllers, etc.	SPAWAR
1.3.4.1.3 Launch Weapon/Control Asset	Navigate the weapon launch or control platform from its host platform to its weapon delivery and/or control point(s) and back to the host platform, in a manner that maximizes mission affordability, platform/weapon survivability (vs. terrain and threats.)	SPAWAR
1.3.4.2 System Transport	Deploy, maneuver, and configure systems to effectively, sense, track, engage, and/or collect post-engagement data.	RDA CHENG
1.3.4.3 Troop/Cargo Transport	Deploy and maneuver troops, equipment, and cargo to effectively secure or reinforce areas of operation and conduct resupply.	RDA CHENG
1.3.5 Status Tracking	Monitor progress of scheduled engagements.	SPAWAR
1.3.5.1 Maintain Weapon Inventory	1. Manage, catalogue, determine requirements, procurement, distribution, overhaul, and disposal of material of weapon systems. 2. Monitor remaining weapons available for combat.	SPAWAR
1.3.5.2 Maintain Weapons Release Condition Status	1. Keep records for real-time information on weapons standing. 2. Direction received from higher headquarters pertaining to weapons release instructions. Typically weapons status are Weapons Tight, Weapons Hold, or Weapons Free.	SPAWAR
1.3.5.3 Receive Mission Update	Acquire information pertaining to a specified mission or event.	SPAWAR
1.3.5.4 Track Safe Return/Passage	Monitor friendly forces to ensure return into friendly territory free of enemy forces.	SPAWAR
1.3.5.5 Track Launch Preparation	The process of following the current engagement situation with verbal or electronic updates that enable an operator or system to make the appropriate decision. - Src: (SPAWAR 05 3/03)	SPAWAR
1.3.5.6 Track Engagement Status	Follow current engagement situation with verbal or electronic updates that enable an operator or system to make the appropriate decision.	SPAWAR
1.4 Interoperate	Support data dissemination, including formatting, access, and routing of data to and between all other functions; also, includes the development and dissemination of common reference time, navigation, and METOC data. Exchange information electronically with friendly forces IAW security and access regulations.	RDA CHENG
1.4.1 Communicate Sense Data	Support the dissemination, including formatting, of sensor data which is to include detection or track data, signal feature or ID data, or imagery data.	RDA CHENG

Function	Definition	Definition Source
1.4.1.1 Measurement Distribution	Measurement Distribution distributes measurement data within the combat system and across the battle force. Measurement Distribution distributes measurement data to support: Reporting local measurements to the battle force, delivering remote measurements to measurement fusion, weapons control, early detection and track initiation, C2 functions, for example, auto <del>special doctrine or identification</del>	Unknown
1.4.1.2 Track Distribution	Track Distribution distributes tracks within the Combat System and across the battle force to support: Inclusion of remote tracks into the Track Database, track data exchanges for entry of a participant into communications networks, local track reporting to the battle force, track forwarding between communications networks, track data requirements for C2 and weapons control functions.	Unknown
1.4.1.3 Communications Net Message Translation	Communications Net Message Translation receives normalized track data from functions that support track formation and converts it to the appropriate message format(s) for distribution over designated communication link(s). Comms Net Msg Translation also receives communication link messages from the communication links and converts them to the normalized track data standard before forwarding the information to functions that support track formation. Comms Net Msg Translation forwards all incoming and outgoing messages to functions that support network monitor function to support Quality-of-Service calculations.	Unknown
1.4.2 Communicate Force Orders	Support dissemination, including formatting, of rules of engagement, target lists, <del>intelligence, and restricted areas.</del>	RDA CHENG
1.4.3 Communicate Status	Support dissemination, including formatting, access and routing, of engagement results and status, including imagery, and mission and operations status (including emergency communications such as distress beacons).	RDA CHENG
1.4.4 Communicate Order	Support dissemination, including formatting, access and routing, of calls for fire, weapon tasking, aim-point data, weapon disarming orders and warning orders.	RDA CHENG
1.4.5 Precision Navigation and Time Generation	Supply current time, navigation data, and METOC data to all other functions.	RDA CHENG
1.4.5.1 Acquire, Disseminate, and Synchronize Time Data	Acquire, disseminate and synchronize precise current time data utilizing a recognized time standard (such as UTC[USNO]). Time data should include time <del>tag of tracks originated by the source as well as source data</del>	Navy PNT WG
1.4.5.2 Acquire, Disseminate, and Synchronize Navigation Data	Acquire, disseminate and synchronize navigation data utilizing a recognized <del>navigation standard (such as WGS-84).</del>	Navy PNT WG
1.4.5.2.1 Detect Navigation Signals	Collect and register presence of signals supporting navigation.	SPAWAR
1.4.5.2.2 Generate Navigation Signal	Provide navigation signal for transmission.	SPAWAR
1.4.5.2.3 Process Navigation Signals	Process navigation signals to filter noise, improve signal-to-noise ratio, amplify, or otherwise improve signals for reception, retransmission, or conversion to <del>another format.</del>	SPAWAR
1.4.5.2.4 Receive Navigation Signals	Capture and pass thru navigation signals.	SPAWAR
1.4.5.2.5 Recognize Navigation Signals	Determine type and basic characteristics of navigation signal being received.	SPAWAR
1.4.5.2.6 Search Navigation Signals	Observe area of interest for navigation signals of interest for specified time.	SPAWAR
1.4.5.2.7 Navigation SSI	This function receives and processes navigation data from platform navigation sensors and remote sensors over the navigation net, correlates local navigation data with remote navigation data, selects the best navigation sensor to provide navigation data, and forwards navigation data to the Dissimilar Source <del>Integration function</del>	OA/Fn
1.4.5.2.8 Transmit Navigation Signal	Send Navigation signal to an object of interest.	SPAWAR
1.4.6 Communicate METOC Data	Determine and disseminate meteorological and oceanographic data.	Unknown
<b>2.0 Sustainment</b>	Functions that support primary war fighting activities	Unknown
2.1 Acquisitions	Process tools for combat and mission support acquisitions	Unknown
2.1.1 Aid Acquisition Authorization Security	Provide safeguards that ensure resources are not procured until approved by an <del>authorized authority.</del>	Unknown
2.1.2 Analyze Acquisition Efficiency	Provide visibility of all contracts for the acquisition of materials or services as a basis for good, sound, economical acquisition decisions from the Strategic National Level down to the tactical level.	Unknown
2.1.3 Control Acquisition Inventory	Ensure resources acquired are accounted for and entered into the applicable inventory control system for visibility, maintenance and disposition.	Unknown
2.1.4 Predict Asset Re-supply	Provide projected procurement requirements based on projected consumption <del>and losses in support of an operation.</del>	Unknown
2.1.5 Aid Contract Tracking	Provide the ability for contracting officers down to the JTF level to track <del>contracts and pre-approved commercial contract sources.</del>	Unknown

Function	Definition	Definition Source
2.1.6 Aid Supplier Availability Assessment Decision	Provide visibility of assets at the wholesale and retail levels (serviceable and unserviceable) to include those items in-transit, in-process and in-storage) enabling procurement managers to make smart, business-like procurement decisions.	Unknown
2.2 In-Theater Engineering	Provide direct in-theater support for engineering analysis and consult.	Unknown
2.2.1 Analyze Theater Engineering Infrastructure Capability and Limitation	Provide infrastructure engineering assessments based on capabilities and limitations on all nodes with the distribution system/lines of communications and potential bed-down sites, assembly or staging areas.	Unknown
2.2.2 Analyze Theater Engineering Supportability	Provide engineering supportability analysis for a course of action based on facility requirements for deploying forces, infrastructure, and engineering unit capabilities and limitations.	Unknown
2.2.3 Analyze Theater Engineering Units Visibility	Generate status, location and capabilities of all engineering units / assets within a theater of operation or those scheduled to deploy	Unknown
2.2.4 Analyze Theater Facility Requirements	Provide the ability to determine expeditionary operational and support facility requirements and assist in the assessment/execution of required engineering support in acquiring the needed facilities for deploying forces	Unknown
2.2.5 Analyze Theater Host Nation/Commercial Engineering Asset	Provide visibility of all potential host nation or commercial engineering assets / resources available within a theater of operation.	Unknown
2.2.6 Analyze Theater Infrastructure and Construction Capability	Provide drill-down capabilities into infrastructure and facilities (airfields, seaports, rail lines, bridges, roads, etc.) to determine real-time specific infrastructure and construction capabilities / requirements.	Unknown
2.3 Access Joint Asset Information	Provide tools for accessing joint asset and status data/information.	Unknown
2.3.1 Process Asset Specific Information Query	Drill-down capability to determine specific information requirements of items and personnel in-transit, in-storage and in-process.	Unknown
2.3.2 Analyze Total Assets Location and Status	Maintain visibility of all assets in-transit, in-storage and in-process.	Unknown
2.3.3 Predict Joint Asset Shortfall	Provide advance warning of potential shortfalls or problems resulting from joint asset visibility as compared to the commanders' operational intent and projected consumption.	Unknown
2.3.4 Query Unit and Infrastructure Strength and Limitations	Provide drill-down capabilities to identify specific strengths, limitations, etc. of units and infrastructure.	Unknown
2.4 Provide Maintenance Status	Provides modeling, simulation and analysis tools for assessing material/equipment readiness and status, including configuration status accounting.	DON CIO
2.4.1 Analyze Equipment Repair Time	Project the estimated time in commission (ETIC) for non-mission capable equipment return to mission capable status based on availability of repair parts, maintenance personnel and maintenance support equipment.	Unknown
2.4.2 Analyze Theater Host Nation/Commercial Repair Facilities availability	Provide visibility of all potential host nation or commercial repair facilities / infrastructure available in a theater of operation.	Unknown
2.4.3 Analyze Theater Maintenance Repair Unit Visibility	Generate status, location and capabilities of maintenance repair units / assets within a theater of operation or those scheduled to deploy into a theater of operation.	Unknown
2.4.4 Analyze Theater War Reserve Material Readiness	Provide readiness (maintenance) status, and location of all prepositioned war reserve material within a theater of operation.	Unknown
2.4.5 Predict Weapon Systems Readiness Trends	Project readiness trends for each weapon system based on current readiness posture, projected failures and losses and projected maintenance returns on overall readiness.	Unknown
2.5 Analyze Medical and Health Situation	Provides modeling, simulation and analysis tools for assessing medical readiness and status in joint operations.	Unknown
2.5.1 Analyze Blood Availability	Provide location, status and disposition of all class VIII and blood supplies within an area of operation.	Unknown
2.5.2 Predict Force Health Protection Supportability	Provide force health protection supportability analysis (to include anticipated patient and class VIII requirements) for a course of action based on health affairs units / infrastructure capabilities and limitations within a theater of operation.	Unknown
2.5.3 Analyze Individual Health Readiness	Provide individual health readiness information (profiles, shot records, etc.). For example, provide readiness status to appropriate personnel and Commander's for duty fitness assessment.	DON CIO
2.5.4 Analyze Individual Patient Visibility	Provide status, disposition and location of patients within the medical system by medical unit, combat unit, and individual.	Unknown
2.5.5 Support Medical Logistics	Support delivery of health, medical services, provide patient status, tracking and record keeping.	Unknown
2.5.5.1 Provide Health Services	Support patient health assessment, treatment, preventative care.	Unknown
2.5.5.1.1 Support Dental Examinations	Support oral assessment activities.	Unknown
2.5.5.1.2 Maintain Dental Records	Facilitate storage, retrieval of examination results, medical history, treatment plans, treatment execution for dental records. Provides interface for entering data and imagery.	Unknown
2.5.5.1.3 Support Dental X-Rays	Facilitate X-Ray and imagery oral examination activities.	Unknown

Function	Definition	Definition Source
2.5.5.1.4 Support Laboratory/Diagnostic Services	Provide process controls/tracking, sample tracking, record keeping and reporting for laboratory diagnostic testing.	Unknown
2.5.5.1.5 Support Medical X-Rays	Facilitate medical X-Ray and imaging (MRI, Ultrasound etc.) activities. Process tools, checklists, record keeping, results reporting.	Unknown
2.5.5.1.6 Support Medical Examination	Provide routine medical exams.	Unknown
2.5.5.1.7 Maintain Medical Records	Facilitate storage, retrieval of examination results, medical history, treatment plans, treatment execution for medical records. Provides interface for entering data and imagery.	Unknown
2.5.5.1.8 Formulate and Dispense Pharmaceuticals/Medicines	Formulate and dispense pharmaceuticals. Provide prescription tracking by patient, inventory, reference for formulary functions etc	Unknown
2.5.5.1.9 Execute Preventative Medicine Plans	Facilitate formulation and execution of preventative medicine plans. Identify, formulate and assess plans which focus on primary concerns.	Unknown
2.5.5.2 Perform Medical Treatment	Support treatment of sickness, disease, injury.	Unknown
2.5.5.2.1 Perform Blood Transfusions	Support blood transfusion activity. Requirement assessment by blood type, blood type locator, record keeping etc.	Unknown
2.5.5.2.2 Maintain Dentistry Care	Provide medical treatment for oral disease, injury.	Unknown
2.5.5.2.3 Perform Emergency Care	Support diagnosis, treatment and referral for sickness, disease, injury on an emergency/life threatening basis.	Unknown
2.5.5.2.4 Perform Medical Care	Support diagnosis, treatment and follow-up treatment for sickness, disease, injury.	Unknown
2.5.5.2.5 Perform Medical Surgery	Perform and support medical surgery treatment.	Unknown
2.5.5.2.6 Issue and Maintain Prescriptions	Write/issue prescription drugs and record prescription transactions dosages. May electronically forward prescriptions to pharmacy	Unknown
2.5.5.2.7 Acquire and Maintain Hospital Facilities	Locate and arrange for appropriate medical facilities for patient treatment and care. Provides evaluation for staff, space, equipment, capacity etc.	Unknown
2.5.5.2.8 Perform and Support Medical Evacuation	Locate and arrange for medical evacuation/transportation.	Unknown
2.5.6 Analyze Medical Threat and Risk	Provide medical threat, intelligence, and surveillance information to assist in the identification of population and individual risk factors.	Unknown
2.5.7 Analyze Theater Host Nation/Commercial Medical Capabilities	Provide all host nation and commercial infrastructure medical capabilities within an area of operation.	Unknown
2.5.8 Analyze Theater Medical Units and Assets Visibility	Generate status, location and capabilities of all medical units / assets within a theater of operation or those scheduled to deploy into a theater of operation.	Unknown
2.5.9 Analyze Theater Medical Units and Facilities Capabilities and Limitations	Provide drill-down capabilities into medical units and facilities to determine exact capabilities and limitations.	Unknown
2.6 Analyze Mobility, Transportation and Movement	Provide modeling, simulation and analysis tools for assessing movement/movement readiness and status in joint operations.	Unknown
2.6.1 Analyze Cargo Assets Visibility	Generate status, and disposition, location of airlift assets (CONUS, inter-theater and intra-theater), sealift and rail assets.	Unknown
2.6.2 Analyze CONUS and Theater Material Handling Equipment Availability	Provide drill down capability to determine availability of materials handling equipment (MHE) capability within CONUS and theater.	Unknown
2.6.3 Analyze Distribution and Communication Node Visibility	Generate status, capabilities and limitations of each potential node within the distribution system, or lines of communication.	Unknown
2.6.4 Analyze Host Nation/Commercial Asset Visibility and Availability	Generate visibility and availability of commercial and Host Nation Support (HNS) assets available for employment into an area of operation or in support of a mission.	Unknown
2.6.5 Analyze Theater Assets Entry/Exit Visibility	Generate status, location and time tables for departure and arrival of assets moving into, through or out of the theater of operation.	Unknown
2.6.6 Analyze Theater Transportation Assets Shortfall	Project shortfalls in transportation assets based on given force/cargo projected/programmed flow into, through or out of a theater of operation	Unknown
2.6.7 Analyze Transportation Assets Visibility	Generate status, location and capabilities of transportation units/assets in a theater of operation or those scheduled to deploy into a theater of operation.	Unknown
2.6.8 Analyze Supply Class Visibility	Generate status, disposition, location (in-process, in-transit, and in-storage) of all classes of supply (wholesale and retail).	Unknown
2.6.9 Analyze Supply Distribution Visibility	Generate status, capabilities and limitations of each potential supply distribution unit, facility or center.	Unknown
2.6.10 Analyze Theater Commercial Supply Availability	Provide visibility and availability of commercial supplies available for employment in an area of operation or in support of a mission.	Unknown
2.6.11 Analyze Theater Supply and Service Units	Generate status, location and capabilities of supply/service units/assets within a theater of operation or those scheduled to deploy into a theater of operation.	Unknown
2.6.12 Analyze Theater Supply Movement	Generate status, location and timetables for departure and arrival of supplies moving into, through or out of the theater of operation.	Unknown
2.6.13 Analyze Theater Supply Shortfall	Project shortfalls within each class of supply based on commanders' operational intent and projected consumption factors.	Unknown
2.6.14 Analyze Theater War Reserve Material	Generate status, and location of all prepositioned war reserve material within a theater of operation.	Unknown
2.7 Personnel Management and Administration	Facilitate assignment, status tracking, emergency leave, and personnel record keeping.	Unknown

Function	Definition	Definition Source
2.7.1 Workforce Acquisition/Optimization	Measure and monitor workforce metrics, including comparison against external benchmarks. These solutions for analyzing workforce metrics (such as turnover and time to hire) require ad hoc analysis and query capabilities with multidimensional capability.	OMB SRM 1/29/03
2.7.1.1 Present and Analyze Operational Personnel Status	Provide stored current and historical data for individual personnel including biographical, skills/experience, training, qualifications and current status. Aggregates personnel data for analysis of skill distributions and unit capability/profile.	Unknown
2.7.1.2 Theater Individual Personnel Query Processing	Provide individual drill-down capability to determine: 1. Individual personal history. 2. Individual family data / information (next of kin, home of record, etc.). 3. Individual deployment preparedness information (will, power of attorney, medical, training, etc.) 4. Military and civilian schooling information / preparedness. 5. Location and unit of assignment of all contractor, governmental employees, non-governmental employees (e.g. contractors) and dependents within the theater of operation.	Unknown
2.7.1.3 Analyze Theater Unit Capability	Provide unit drill-down capability to determine: 1. Overall visibility, status and location of each unit within the theater of operation. 2. Overall personnel status and military occupational skill shortages that impact on ability of a unit to accomplish its mission. 3. Provide drill-down capability to individuals within a unit to obtain individual data. 4. Consolidate and provide specific requested ad hoc inquiries into units to obtain information	Unknown
2.8 Support Religious and Spiritual Activities	Support religious activities such as worship service preparation, spiritual counseling and moral assessments.	Unknown
<b>3.0 Business</b>	The focus for application software is to increase the performance and efficiency of business or personal resources. It enables users to leverage the power of computers toward achievement of their business, professional or personal objectives or goals.	Unknown
3.1 Maintain Business Intelligence	Gather, store, catalogue, retrieve, analyze business data for evaluating, predicting internal performance, processes relative to the business environment and climate. Evaluate the external business environment and facilitate business management, goal setting and strategic planning for the enterprise.	RDA CHENG
3.1.1 On-Line Analytical Processing	OLAP uses a multidimensional view of aggregate data to provide quick access to strategic information for further analysis. OLAP transforms raw data so that it reflects the real dimensionality of the enterprise as understood by the user. OLAP enables decision-making about future actions. OLAP and Data Warehouses are complementary. A Data Warehouse stores and manages data. OLAP transforms Data Warehouse data into strategic information.	OMB SRM 1/29/03
3.1.1.1 Demand Forecasting and Management	Identify and describe the current and future competitive landscape. Frame the purchase/usage decision in meaningful ways. Generate forecasts for contingencies in as yet uncertain/undecided product profiles or competitive options. Anticipate demand among different market segments. Calibrate survey-derived demand estimates to predict actual not just relative revenue or usage volume. Integrate the influence of multiple decision makers on acquisition and usage	OMB SRM 1/29/03
3.1.1.1.1 Performance Management	Assess an enterprise's performance, using analytical metrics, strategic planning, and a data warehouse approach to accessing and analyzing information.	Unknown
3.1.1.1.2 Risk Management	Facilitate the process of mitigating loss. Risk Management is a engineering practice with processes, methods, and tools for managing risks in a project. It provides a disciplined environment for proactive decision-making to: -Assess continuously what can go wrong (risks). -Determine what risks are important to deal with. -Implement strategies to deal with those risk.  Functions associated with Risk Management are as follows: -Function Description -Identify Search for and locate risks before they become problems. -Analyze Transform risk data into decision-making information. -Evaluate impact, probability, and timeframe, classify risks, and prioritize risks. -Plan Translate risk information into decisions and mitigating actions (both present and future) and implement those actions. -Track Monitor risk indicators and mitigation actions. -Control Correct for deviations from the risk mitigation plans. -Communicate Provide information and feedback internal and external to the project on the risk activities, current risks, and emerging risks.	RDA CHENG
3.1.1.2 Reporting	Provide for preformatted on-line or printed results from analysis, queries or other computational data processing.	Unknown

Function	Definition	Definition Source
3.1.1.3 Visualization	Produce various types of graphic/visual media; on-line or printed hard copy. Results from analysis, queries or other computational data processing.	Unknown
3.1.1.3.1 Computer Aided Design	Provide a graphic output function from CAD software such as AutoCAD, AppliCAD. Depict results from engineering design data, drawing and computation.	Unknown
3.1.1.3.2 Produce Graphs and Charts	Depict data in a 2D/3D format (xy, xyz). Provide for preformulated industry standard or custom formatting.	Unknown
3.1.1.3.3 Produce and Display Imagery	Produce or display imagery or imagery data with capability to format or overlay other data.	Unknown
3.1.1.3.4 Produce and Display Maps and Geospatial Data	Display and produce hard copy data of maps and Geophysical data. Includes capability to manipulate, format, and overlay other data	Unknown
3.1.1.3.5 Produce Multimedia Reports	Produce digital compilations of various media types such as video, pictures, graphs, animations, holographic etc...	Unknown
3.1.1.4 Process Structural and Thermal Data	Process and calculate data relative to structural and thermal dynamics. (OMB SRM 1/29/03)	OMB SRM 1/29/03
3.2 Back Office Services	Automate and support the processes of the administrative, production, inventory and product development aspects of an enterprise.	Unknown
3.2.1 Financial Management	Automate and support corporate finance function and related departments of an enterprise. Store relevant data, provide IT foundation for running organizational finances and prepare reports for management and external authorities.	OMB SRM 1/29/03
3.2.1.1 Accounting	Enable job cost accounting and control and focus on manufacturing and production environments related to product, labor, parts, time and other inventory, and production expenses.	Gartner
3.2.1.1.1 Defense Standard Accounting and Reporting	Provide processing and reporting of general fund accounting operations. Provide processing of accounting transactions and financial reports (required by law), as well as the processing and payment of invoices.	Unknown
3.2.1.1.2 Process Expenses: Professional Services	Track and obtain client approvals for expenses associated with professional services providers, including the out-of-pocket expenses for time and travel.	Unknown
3.2.1.2 Auditing	Support financial account, record and business unit auditing	Unknown
3.2.1.3 Billing	Support invoicing and receivables.	DON CIO
3.2.1.4 Budgeting	Allocate funds for specific business activities.	Unknown
3.2.1.5 Consolidation	Amalgamate an enterprise's general ledger data from internal divisions.	Unknown
3.2.1.6 Process Credit/Charge Accounts	Calculate and track credit fees against payable/receivable accounts.	OMB SRM 1/29/03
3.2.1.7 Currency Translation	Provide calculation for currency exchange using various indices and currency markets/exchanges.	OMB SRM 1/29/03
3.2.1.8 Expense Management	Automate recording, submitting and processing expense claims.	OMB SRM 1/29/03
3.2.1.9 Financial Visibility and Transaction Processing	Facilitate data collection computation and display relative to enterprise transactions and business processes.	Unknown
3.2.1.9.1 DOD Enterprise Financial Transaction processing	Provide capability for Services and Agencies to execute freely financial transactions across the DOD Enterprise non-intrusively for those logistics business processes directly in support of the war fighter	Unknown
3.2.1.9.2 Individual Pay and Allowance Query Processing	Provide drill-down capability to determine specific individual pay and allowance information and problems.	Unknown
3.2.1.9.3 National/Theater Accounting	Provide visibility of all financial obligations, commitments and transactions from the National Strategic to the Tactical level.	Unknown
3.2.1.9.4 Status of Funds Query Processing	Provide immediate access to the status of funds (expenditures, obligations and remaining amount) at each level of command regardless of Service component, including detailed visibility on cost categories supporting baseline operations, and incremental cost of bed down, employment and reconstitution.	Unknown
3.2.1.10 Indirect Purchasing/Procurement	Facilitate the purchase of goods and services not incorporated into a final delivered product or service.	RDA CHENG
3.2.1.11 Investment Management	Administrate, manage, and track IT acquisition/investment and EA development. Analyze probable risk/reward factors based on current and historical performance indicators and data.	OMB SRM 1/29/03
3.2.1.11.1 Portfolio Management	Administer, analyze and organize multiple investments.	OMB SRM 1/29/03
3.2.1.11.2 Strategic Planning & Mgmt	Formulate a strategy for future capital investment and management.	OMB SRM 1/29/03
3.2.1.12 Payment/Settlement Processing	Support payables.	DON CIO
3.2.1.13 Process Payroll Data	Process payroll data, report and pay payroll taxes, issue payments and reports to employees, issue payments to third parties and report data to the end user.	OMB SRM 1/29/03
3.2.1.14 Debt Collection	Track and manage overdue accounts receivable.	OMB SRM 1/29/03

Function	Definition	Definition Source
3.2.2 Human Capital/Workforce Management	Automate HR planning, acquisition, requirements and analysis functions.	Unknown
3.2.2.1 Contingent Workforce Management	Plan and manage the contingent workforce (temporary and contract staff).	OMB SRM 1/29/03
3.2.2.2 Organizational Development	Develop/update competency models, create/update of job profiles as well as competency assessment, gap analysis, developing/ implementing improvement plans, and management of improvement efforts.	Unknown
3.2.2.3 Resource Planning and Allocation	Automate functions to project HR requirements and planning to acquire and/or redistribute assets to requirements.	OMB SRM 1/29/03
3.2.2.4 Skills Management	Facilitate analysis of skill set requirements, capabilities, workforce development and training to reach current and strategic goals.	OMB SRM 1/29/03
3.2.2.5 Team/Organization Management	Assess current organizations capability to achieve current and strategic goals. Develop organizational measures and alternative organizational structures.	OMB SRM 1/29/03
3.2.2.6 Maintain Workforce Directory	Locate and contact specific personnel and groups based on logical query parameters. (OMB SRM 1/29/03)	RDA CHENG
3.2.2.7 Maintain Personnel Capabilities Database	Maintain skills, certification, education, geographic location, availability, bill rates, work experience, areas of interest, employee utilization and career goals	
3.2.3 Human Resources Management	Store appropriate employee information, provide the IT component for running the relevant business processes and generate reports for management. Functions consist of recruitment, benefits, education and training, personnel administration, contingent workforce management, time and attendance, organizational development, performance management, compensation planning and strategy, workforce analytics, and payroll (gartner).	Unknown
3.2.3.1 Career Development	Plan and implement specific personnel and training measures and thus promote employees' professional development. Ensure that staff qualification requirements are met and planned. Compare current or future work requirements with employees' qualifications, preferences and aspirations. Actual personnel development measures involve either individual business events, or comprise complex development plans, which are, in turn, made up of a number of subactivities. Personnel appraisals form another important basis for personnel development planning. Apart from supplying invaluable information, personnel appraisals can also be used to monitor the success of personnel development measures that have already been introduced.	OMB SRM 1/29/03
3.2.3.2 Manage Qualifications/Requirements	Structure and manage a qualifications catalog. Create profiles to manage, evaluate and compare needs vs. personnel.	Unknown
3.2.3.3 Compensation Planning and Strategy	Create and administrate job descriptions/updates, salaries and employee surveys, setting and maintaining salaries, setting and maintaining short and long term incentives, and development and implementation of overall compensation packages.	Unknown
3.2.3.4 Education and Training	Select, acquire, develop, deliver and maintain resources that enhance employee knowledge and skills.	OMB SRM 1/29/03
3.2.3.4.1 Analyze Education and Training Levels	Assess provided training against current education, knowledge and skills against existing and future requirements.	Unknown
3.2.3.4.2 Manage Training Curriculum	Catalogue and track course structure, learning objectives and content. Integrate courses into syllabus structure. Track courses updating and maintain historical records.	Unknown
3.2.3.4.2.1 Accreditation Monitoring and Tracking	Track accreditation factors and requirements.	Unknown
3.2.3.4.2.2 Curriculum Analysis	Document current curriculum, determine variables including requirements affecting curriculum and develop alternatives/solutions for refresh and upgrading.	Unknown
3.2.3.4.2.3 Curriculum Content Management	Provide: student course syllabus, lecture notes, handouts, slides and electronic files, threaded discussions, class polling and quizzes, video streams of lectures or speakers, and a dynamic link to student online calendaring packages.	Unknown
3.2.3.4.2.4 Deliver Curriculum	Provide functionality, environment and tools to conduct training on tactical equipment on the subject platform before, during and after deployment.	NUWC
3.2.3.4.3 Qualification/Certification Tracking	Document formal certifications and qualifications of students based on experience, course completion and/or industry standards.	Unknown
3.2.3.4.4 Student Management	Maintain personal information, past education records, biodata, registration data, contact/emergency contact information, financial records, locator, course information etc.	Unknown
3.2.3.4.4.1 Maintain Applications	Store formal applications and attachments.	Unknown
3.2.3.4.4.2 Course Completion Tracking	Enter/retrieve course completion data	Unknown
3.2.3.4.4.3 Register/Enroll	Enter/retrieve enrollment data.	Unknown

Function	Definition	Definition Source
3.2.3.4.4.4 Student Progress Tracking	Provide student progress information, test results and session information. Gives question-by-question results and analysis to assist in determining difficulty areas.	Unknown
3.2.3.4.4.5 Student Screening	Identifying students relative to a specified criteria.	Unknown
3.2.3.4.4.6 Testing, Evaluation and Assessment	Test Development, Ordering, Administration, Grading Results	Unknown
3.2.3.4.5 Training & Education Resource Management	Manage training and education related resources.	Unknown
3.2.3.4.5.1 Equipment Management	Track training equipment specific data and inventories.	Unknown
3.2.3.4.5.2 Instructor/Faculty Management	Maintain faculty specifics (education, professional published papers, licenses, certifications, current and past courses taught, schedule etc.	Unknown
3.2.3.4.5.2.1 Maintain Instructor Qualifications	Maintain instructor status, certifications, licenses, education.	Unknown
3.2.3.4.5.2.2 Maintain Electronic Training Jacket	Compile individual training, education, advancement, qualifications, and certification data into an electronic format that is accessible on-demand.	RDA CHENG
3.2.3.4.5.3 Scheduling	Determine availability and subsequent scheduling of instructors, facilities, equipment etc..	Unknown
3.2.3.4.5.4 Student Quota Management	Automate on-line registration and control for courses.	Unknown
3.2.3.4.5.5 Training Resource Planning	Analyze training resource requirements such as facilities, computers, IT infrastructure, instructors, content etc....for planned curriculum.	Unknown
3.2.3.4.5.5.1 Capacity Planning	Determine required resources for planned curriculum.	Unknown
3.2.3.4.5.5.2 Resource Optimization	Provide scheduling, process tools to efficiently allocate resources	Unknown
3.2.3.4.6 Training Attendance/Completion Tracking	Maintain course attendance records and completion.	Unknown
3.2.3.4.7 Training Exercise Reporting	Prepare exercise final report: Templates, formats, data analysis presentation which promote conclusions and assessments relative to goals and expectations	Unknown
3.2.3.4.7.1 Training Exercise Development	Conduct exercise goal planning, scenario construction, execution timeline.	Unknown
3.2.3.4.7.2 Training Exercise Grading	Generate exercise MOE/MOPs and construct data collection plans	Unknown
3.2.3.4.8 Unit Training Management (Command Level)	Develop and track process of defining unit tasks associated with its primary mission (capabilities, performance), application of the UTMs principles and development of METLs.	Unknown
3.2.3.5 Personnel Administration	Maintain employee relations, employee lifecycle, employee communication, onboarding, relocation and expatriate administration, labor management, and local compliance issues.	OMB SRM 1/29/03
3.2.3.6 Resume Management	Store, retrieve, sort, categorize and filter resumes.	OMB SRM 1/29/03
3.2.3.7 Retirement Management	Maintain retirement benefits and pay eligibility.	Unknown
3.2.3.8 Track Time and Attendance	Plan, collect and analyze labor time accounting.	OMB SRM 1/29/03
3.2.3.9 Benefit Management	Distribute healthcare and retirement plan information, manage eligibility questions regarding coverage, maintain retirement earning histories, enrollments, new hire processing, retirement or vested rights estimates, and benefits termination administration. (OMB SRM 1/29/03)	RDA CHENG
3.2.4 Integrated Plant Systems Management	Open control, production management, production information management and analysis, process modeling and knowledge management, plant resource planning and plant resource reconciliation functions.	Unknown
3.2.4.1 Plant Resource Management	Manage resources effectively in synchronization with enterprise objectives and resources, specifically plant-to-enterprise integration management, plant capability and performance portal, plant-specific (finite capacity) scheduling, plant-specific material management, and plant-specific asset and maintenance management.	Unknown
3.2.3.2 Process Modeling and Knowledge Management	Process modeling and optimization, process simulation, product specification/ recipe management, bill of material (BOM) synchronization and management, line balancing, and bill of process (BOP) synchronization and management.	Unknown
3.2.4.3 Production Information Management	Record and archive process/test parameters, product genealogy and quality measures plus the data transformation methods and analytical techniques to turn raw process data and parametric measures into useful information consumable by enterprise business transactions and decision support systems.	Unknown

Function	Definition	Definition Source
3.2.4.4 Production Operations Management	Mount production campaigns and execute them with proper control of shop floor operations while enabling enforcement of process/test parameters, product genealogy and quality. Their functionality includes production order management, work routing and enforcement, work instructions delivery, unit/lot tracking, and regulatory/ quality assurance.	Unknown
3.2.5 Support Management of Assets/Materials	Integrate key plant control systems with maintenance activities and functions to reduce downtime and minimize maintenance spending.	Unknown
3.2.5.1 Catalogue and Identify Assets	Identify assets and activities, and manage requests for service and work schedules. In addition, manage job costing, work orders, asset registration, fixed assets, and predictive and preventive maintenance.	Unknown
3.2.5.2 Manage IT Assets	Provide asset discovery, asset management, an asset database/repository, asset portfolio management, tracking of purchases, leases, contracts and disposal pertaining to IT assets including hardware and software.	Unknown
3.2.5.3 Asset Transfer and Allocation	Plan parts and material requirements for maintenance. Integrate with procurement management, enable automatic assignment of ABC classes to stock, as well as cycle counting. Modules in this segment include parts, inventory, orders management and bill of materials.	Unknown
3.2.5.4 Weapon System Provisioning	Provide data relative to initial and LCS weapon system requirements. Includes requirements for top down breakdown subsystem parts, consumables, support equipment/calibration/tools, IMA and Depot.	Unknown
3.2.5.5 Facilities Management	Support the usage, operation, and maintenance of facilities	Unknown
3.2.5.6 Physical Security	Support physical security monitoring, detection, alerting, and response	Unknown
3.2.5.7 Corporate Functions	This includes, but is not limited to, fulfillment, order management, asset management, service management, project management, corporate compliance and quality assurance and quality control.	Unknown
3.2.5.8 Plant/Manufacturing Operations	This includes, but is not limited to, master production scheduling, material requirements planning (including regenerative MRP), costing, inventory control, bills of material/ routing (including engineering change control), capacity requirements planning (including input/output control, finite scheduling and infinite scheduling), and quality tracking/ control.	Unknown
3.3 Customer Relationship Management	Enable greater customer insight, increased customer access, more effective customer interactions and integration throughout all customer channels and back-office enterprise functions.	Unknown
3.3.1 Customer Service and Support	Provide Customer Relationship Management functionality to service and support of direct customers. Automate functions for call center activity insuring follow-up, customer analysis to improve overall customer satisfaction.	Unknown
3.3.1.1 Casualty Reporting	Report and track remedial action for system malfunctions which affect readiness, war fighting capability.	Unknown
3.3.1.2 Reliability Tracking	Consolidate data and events relative to top down reliability of systems which affects availability.	Unknown
3.3.1.3 Auctions B2B and B2C Proxy bidding	Dynamic interfaces, Asynchronous notification, Administrative interface, Reverse Auctions	Unknown
3.3.1.4 Channel Management	Make the channel partner process more time and cost efficient.	Unknown
3.3.1.5 E-Business Analytics/Personalization	Measure and understand the circumstances that drive e-business to discern patterns of sales and profitability.	Unknown
3.3.1.6 E-Catalog Management	Manage a catalog, even though its genesis is in multiple repositories and its state is dynamic, including pricing and configuration, which is unique to customers.	Unknown
3.3.1.7 E-Commerce Content Management	Handles the creation and posting of marketing and corporate content to a complex Web site without recourse to FTP or other non-business application intervention.	Unknown
3.3.1.8 Marketing Management	Allow sellers to collaborate with suppliers and channel partners to plan marketing campaigns and promotions.	Unknown
3.3.1.9 Mobile E-Commerce B2B E-Procurement	Peer-to-peer (P2P) retail, E-finance, E-bill payment	Unknown
3.3.1.10 Order Management	Capture, parse and administer order information, including its export into legacy systems and communication with those systems to surface ongoing order status back to end-customers.	Unknown
3.3.1.11 Maintain Knowledge Base	Process, store and maintain knowledge level information used to solve repetitive problems. It is typically used in a customer support center or by self-help applications.	RDA CHENG
3.3.2 Marketing	Functions which support CRM business development including needs/requirements analysis, branding, resourcing, customer relations management, strategy development etc..	Unknown
3.3.2.1 Brand and Product Management	Provide for trade promotion, product development management and market research.	Unknown
3.3.2.2 Customer Management	Functions that allow prospecting, segmentation, campaign management, multi-channel interaction, multi-channel personalization, event driven and e-marketing.	Unknown

Function	Definition	Definition Source
3.3.2.3 Demand Network Management	Provide content distribution, trade promotion and lead management.	Unknown
3.3.2.4 Resource Management	Strategic planning and budgeting, program management, creative development and distribution, content management, media planning and execution, events coordination and resource management.	Unknown
3.3.3 Sales	Customer Relationship Management functions which support activities to manage business opportunity identification, contacts, partnering, bid/proposal preparation, contracts/SOW preparation, negotiation.	Unknown
3.3.3.1 Account Management	Functions that provide cross-functional capabilities (such as access to customer service, sales and accounting personnel), multi-organizational level capability and overall client account profile.	Unknown
3.3.3.2 Partner Relationship Management (PRM)	Consolidate data and transactions, set business rules and track activity, typically used to manage channels partners, distributors, alliance or strategic partnerships, and often a portal to allow bi-directional information flow and communications between partners.	Unknown
3.3.3.3 Manage Contacts and Opportunities	Enter and track customer profiles, contact information and some relationship capabilities.	RDA CHENG
3.4 Design and Engineering	Tools to support various design and engineering activities.	DON CIO
3.4.1 Configuration Management	A systems engineering and LCM process for identifying, controlling and recording engineering changes from baseline for systems in response to technology refresh, deficiencies, requirements change. Uses versioning methodology and software to maintain a clear understanding as to the makeup of the system and provide an evolutionary historical record.	DON CIO
3.4.1.1 Configuration Control Process	Functions which are associated with implementation and execution of the Configuration Management Plan.	Unknown
3.4.1.2 Support Environmental Analyses	Functions which support analysis of the following enterprise definitions: Desktop/client, Server/host, Connectivity, LAN, WAN, Corporate premises equipment, Public network.	Gartner
3.4.2 Test & Evaluation	Functions relating to processes of developmental, operational evaluation of systems and software.	Unknown
3.4.2.1 Developmental	Functions of systems/applications specific to the Developmental Test phase of a Program	Unknown
3.4.2.2 Operational	Functions of systems/applications specific to the Operational Test phase of a Program	Unknown
3.4.2.3 Test Evaluation	Functions relating to the TECHEVAL and OPEVAL process of analyzing and evaluating systems.	Unknown
3.4.2.3.1 DT Analysis	DT test data reduction, processing and subsequent analysis of test measures.	Unknown
3.4.2.3.2 DT Evaluation	Evaluate DT data to insure that system technical performance and attributes meet or exceeds specifications; The process comprises TECHEVAL.	Unknown
3.4.2.3.3 OT Analysis	Analyze OT test data reduction/processing for subsequent operational suitability and effectiveness evaluation	Unknown
3.4.2.3.4 OT Evaluation	Evaluate OT (OPEVAL) data to insure that system meets or exceeds operational suitability and effectiveness performance requirements and specifications in a realistic operational combat environment using MOEs and MOPs	Unknown
3.4.2.4 Test Execution	Test conduct/control activities in accordance with the TEST LOI schedule and procedures. See COMOPTEVFORINST 3960.1H Chapter 7 Test Operations.	Unknown
3.4.2.5 Test Planning	Functions of systems/applications specific to the Planning effort of the Test phase of a Program	Unknown
3.4.2.5.1 DT Test Planning	Plan Developmental Tests	Unknown
3.4.2.5.2 OT Test Planning	Plan Operational Tests	Unknown
3.4.2.5.3 Test Resource Planning	Plan test resources for use in tests	Unknown
3.4.2.5.4 Test Scheduling	Schedule tests, test resources, test facilities,...	Unknown
3.4.2.6 Test Reporting	Functions/tools for automation of reports. Provides templates, data accessibility, table/graph generator and formatting tools. Supports EOA/OA, FOT&E, SQT, Quick Reaction Assessment (QRQ), Quick-Look Report, VCD report.	Unknown
3.4.2.6.1 DT Reporting	Develop, track, and distribute DT Reports	Unknown
3.4.2.6.2 OT Reporting	Develop, track, and distribute OT Reports	Unknown
3.4.2.7 Automated software quality (ASQ)	Provides functions to track status (certifications, standards etc...) and make assessments of quality dependent factors and industry best practice.	Unknown
3.4.2.8 Other software testing	Functions of systems/applications specific to the testing of software	Unknown
3.4.2.9 SEI CMM	Process Tools related to SEI CMM development, and industry best practice process execution.	Unknown

Function	Definition	Definition Source
3.4.3 Software Engineering	Support the development of IT applications	DON CIO
3.4.3.1 Development Environments and Suites	Tools which provide a process shell for software engineering.	DON CIO
3.4.3.1.1 Development Environments	Typically, these are development environments built around a compiler and a language such as COBOL, C/C++, Fortran, ADA and Pascal, among others. Java language IDEs are included in this category. Language-oriented IDEs generally include graphical user interface (GUI) builders, debuggers, editors and other utilities that are integrated into the environment. There is a fine line between these products and products often categorized as rapid application development (RAD). RAD products typically have more emphasis on visual composition and less emphasis on the specific language and the standard edit, compile and link process.	DON CIO
3.4.3.1.1.1 Client/server development	Tools that enable the creation of clientside and server-side application code, supporting two-tier or multi-tier, traditional or component-based development where the business objects can be partitioned to reside where most appropriate. The tools should support a scalable, rapid development methodology using visual tools.	DON CIO
3.4.3.1.1.2 GUI cross-platform code generators	Tools that typically allows the specification of a GUI through a visual composition facility and then generates the required code and stubs to be filled.	DON CIO
3.4.3.1.1.3 Traditional structured	Formerly defined as "E-CASE lite," these tools aim at small enterprises or large workgroups (20 to 50 developers) that want integrated, repository-based, model-driven methodologies not possible with most workgroup modeling tools, yet wish to avoid the cost, long return on investment (ROI), and infrastructure issues associated with enterprise-class development products (E-CASE).	DON CIO
3.4.3.1.1.4 Visual development/RAD	These tools typically allow the specification of a GUI and much of the required business logic through a visual composition facility, and the support of a component model.	DON CIO
3.4.3.1.2 Language-Oriented Integrated Development Environments (IDEs)	Typically, these are development environments built around a compiler and a language such as COBOL, C/C++, Fortran, ADA and Pascal, among others. Java language IDEs are included in this category. Language-oriented IDEs generally include graphical user interface (GUI) builders, debuggers, editors and other utilities that are integrated into the environment. There is a fine line between these products and products often categorized as rapid application development (RAD). RAD products typically have more emphasis on visual composition and less emphasis on the specific language and the standard edit, compile and link process.	DON CIO
3.4.3.1.3 Model-Driven Development Environments	These typically support an architected, model-based approach to application development and have characteristics that include the following: Layered architecture, Model-driven, Reuse strategy, Business process reengineering and formal methodology, Information warehousing, Object-oriented analysis/object-oriented design, computer-aided software engineering tools/data administration, or both.	DON CIO
3.4.3.2 Embedded software tools	Tools used in the development of embedded software, including real-time operating systems (RTOS), compilers, debuggers, simulators, system-level tools, integrated development environments (IDEs) and in-circuit emulators (ICEs). (Gartner Dataquest). These include: Software system level-Software used to create baseline geographic data; System-level tools (These tools define and model the embedded system at the highest level of abstraction). The system architect can describe the desired structural features and behavior of a system under development. Digital signal process (DSP) development tools (The DSP chip has its own specific characteristics and functions that set it apart as a different breed from the more general-purpose microcontrollers and microprocessors). Major software vendors have software packages for application development for DSPs in addition to several independent vendors that are part of the specialized DSP market. Code development level: Compilers/interpreters-A compiler takes the application code written in a high-level language, such as BASIC, ADA, FORTRAN, C, C++, and others, and conv	DON CIO
3.4.3.3 Enterprise Application Integration & Middleware (AIM)	AIM is defined as the system software or runtime infrastructure used to provide intra- and inter-application communication. Intra-application middleware is used for the construction of individual multi-tiered applications; inter-application middleware is used for communication between individually designed applications. Middleware is typically layered between an application program and the operating system and network transport service. In the IT marketplace, AIM is often referred to as enterprise application integration (EAI). (Gartner Dataquest)	DON CIO
3.4.3.4 Legacy Integration	Tools that aid in integrating existing systems/applications/data into future/new technology	DON CIO

Function	Definition	Definition Source
3.4.4 System Engineering	Tools that support Systems Engineering, an interdisciplinary approach and means to enable the realization of successful systems. It focuses on defining customer needs and required functionality early in the development cycle, documenting requirements, then proceeding with design synthesis and system validation while considering the complete problem: Operations, Performance, Test, Manufacturing, Cost & Schedule, Training & Support, Disposal. Systems Engineering integrates all the disciplines and specialty groups into a team effort forming a structured development process that proceeds from concept to production to operation. Systems Engineering considers both the business and the technical needs of all customers with the goal of providing a quality product that meets the user needs. (INCOSE)	DON CIO
3.4.4.1 Requirements Management Tools	The automated tools available today focus primarily on the information management aspect of requirements management of requirements management, namely traceability and organization (with a few emerging exceptions). The tools vary in their level of support for these activities. Most of the tools provide a text-oriented view of requirements management (such as DOORS, RTM, Document Director and others). A few of the tools take a model-oriented view of requirements management (these include CORE and RDD-100). Another emerging approach is to capture the design (rather than documents describing the design or models describing the functions) from all of its different perspectives and flow down requirements through the various implementation alternatives (making documentation a by-product of the design capture--SLATE is an example of this approach). The term traceability is used to denote a relationship between a requirement and any other element of the system engineering process such as a design component or specification	DON CIO
3.4.4.2 System Architecture Tools	Tools that: 1. Support Quality System Design including evaluation of an architectures effectiveness, quality and completeness, mapping and verification of requirements to architecture descriptions, cycle through all impacted data and products after an architectural modification, indicate impact on associated arch. components, relate Data Dictionary and component definitions to a defined architecture, relate description of inputs, outputs and process to each arch. element, allow the user to define/use their own heuristics and rules, provide user input definition completeness checking at all levels (e.g. interfaces), checks for input(s), output (s) and process(s) descriptions for each arch. element, allows the user to tag architecture elements with requirements, assists in developing the operational concept, relates operational concept to arch. elements, allows cost estimation through a spreadsheet feature, maps cost to architecture elements, and supports architecture evolution with easy editing features; 2. Support Multiple System Views including producing architecture	DON CIO
3.5 Logistics	Provides functions for all enterprise logistics and supply activities.	Unknown
3.5.1 Engineering Logistics	Provides functions, applications and tools for supporting/executing design and LCM engineering logistical processes at the both the enterprise and functional level.	Unknown
3.5.1.1 Damage Repair	Functions support damage assessment, damage repair cost estimating.	Unknown
3.5.1.2 Demolition	Functions support demolition assessment/survey, demolition repair cost estimating, risk assessment/mitigation, public/environmental impact assessment, legal requirements.	Unknown
3.5.1.3 Engineering Planning	Provide functions, applications and tools that support logistical planning for acquisition and LCM engineering activities.	Unknown
3.5.1.3.1 Engineering Collaboration	Direct integration of external and internal partners into a development process.	Unknown
3.5.1.3.2 Lifecycle Change and Configuration Management	Lifecycle Change Management supports all central logistics processes, from the development process through production right up to the maintenance of the delivered product.	Unknown
3.5.1.3.3 Program Management	Provide capabilities that optimize business processes from project planning through execution of a project and enable project progress analysis for cost, schedule, and performance.	NUWC
3.5.1.3.4 Engineering Supportability Analyzer	Provides functions for Tailored Logistics Support Analysis Records (LSAR) software tools: Supportability -engineering database to present maintenance data in a convenient electronic format. Development of dquipment support requirements, throughout the system life cycle, from acquisition through disposal. Delivers life cycle costs (LCC), Level of Repair Analysis (LORA), and Spares optimization	NUWC
3.5.1.3.5 Access Maintenance/Engineering Condition	Track scheduled and unscheduled maintenance history, performance history from equipment monitors, analyzes data and predict failures.	RDA CHENG
3.5.1.4 Vertical Construction	Functions to support multi-story construction projects.	Unknown

Function	Definition	Definition Source
3.5.1.5 Manage Large Scale Engineering Projects	Conduct program planning, schedule control, cost control, project execution, purchasing, reporting.	
3.5.2 Maintenance Logistics	Procurement, distribution and replacement of maintenance goods and services.	RDA CHENG
3.5.2.1 Call Management	This function comprises a whole range of processes from call logging to planning and processing, to completion and follow-up. Typical functions are: Service scheduling, warranty processing, parts requirements and shipping, technical assistance, troubleshooting.	Unknown
3.5.2.1.1 Casualty Reporting	Automated functions to support casualty reporting and processing. Interfaces to tools for evaluating impacts on overall operational capabilities and track resolution of the problem.	Unknown
3.5.2.1.2 Diagnostics	Provides functions for troubleshooting.	Unknown
3.5.2.1.3 Field Service Dispatch/Service Management	Provides automation for assigning and tracking field service operations.	Unknown
3.5.2.1.4 Maintenance Customer Service	Provides functions for facilitating status communication between the customer and maintenance. Automation for warranty determination and processing.	Unknown
3.5.2.1.5 Maintenance Customer Support	Functions for billing, establishing service agreements, and service tracking.	Unknown
3.5.2.1.6 Billing	Functions for the type and method of billing for repair or service.	Unknown
3.5.2.1.7 E288 Maintenance Reporting	Automate report preparation and distribution	Unknown
3.5.2.1.8 Problem Resolution/Trouble Ticket	Automate preparation of maintenance requests	Unknown
3.5.2.1.9 Reliability Tracking	Determining and estimate reliability for a unit of equipment.	Unknown
3.5.2.2 Maintenance Actions	Support single transaction maintenance activities.	Unknown
3.5.2.2.1 Corrosion Control	Support for overall corrosion control activities including: PM, scheduling, hazardous material control, EPA/OSHA regulation compliance, process etc.	Unknown
3.5.2.2.1.1 Environment Management	Consists of Environment and health and Safety tracking and compliance functions	Unknown
3.5.2.2.1.2 Dangerous Goods Management	Functions for Dangerous Goods Management component consist of the following components: -General Basic Settings -Dangerous Goods Master -Dangerous Goods Checks -Dangerous Goods Papers/EDI -Dangerous Goods Interfaces	Unknown
3.5.2.2.2 Discrepancy Tracking	Obtain status and follow through/up on maintenance actions	Unknown
3.5.2.2.3 Diagnostics/Testing	Determine malfunctions/conditions of equipment.	Unknown
3.5.2.2.4 Inspection/Quality Assurance	Ensure that maintenance/repair actions are completed in accordance with proper procedures, parts and best commercial practice/standards.	Unknown
3.5.2.2.5 Part Identification	Determine part/component ID by equipment type, model and serial number/version.	Unknown
3.5.2.2.6 Part Ordering	Automate ordering through providing process/data applications.	Unknown
3.5.2.2.7 Plant Maintenance	Inspection, Preventative Maintenance, all measures that establish the actual condition of a technical system, preventative maintenance, repair, and other measures taken using the maintenance organization.	Unknown
3.5.2.2.8 Preventative/Scheduled Maintenance	Automatic scheduling and completion of preventative maintenance procedures.	Unknown
3.5.2.2.9 Complete Repairs	Support functions for conduct of unscheduled maintenance.	Unknown
3.5.2.2.10 Support Equipment Management	Functions for tracking support equipment inventory, life cycle management, Scheduled Maintenance, maintenance history	Unknown
3.5.2.2.11 Maintain Tool Inventory	Provides automation for tool accountability, check-i/out, condition, FOD prevention etc.	Unknown
3.5.2.3 Maintenance Planning	Conduct inspections, preventive maintenance and planned repairs, for which the time and scope of the work can be planned in advance.	Unknown
3.5.2.3.1 Capacity Planning - Customer Service/Plant Maintenance	Determine which people are available and when, assigning them to order operations.	Unknown
3.5.2.3.2 Configuration Management	Identify the objects that describe a product in a particular life cycle phase and cumulate them in a metaobject a configuration folder.	Unknown
3.5.2.3.3 Variant Configuration	Control and organize variants in manufacturing of complex products, to include variants created by modifying existing product designs during order processing.	Unknown
3.5.2.3.4 Engineering Change Proposal Tracking/Planning	Administer ECP activities. Cost, budgeting, scheduling.	Unknown
3.5.2.3.4.1 Engineering Change Management	Change various aspects of production basic data depending on specific conditions.	Unknown

		<b>Function</b>	<b>Definition</b>	<b>Definition Source</b>
		3.5.2.3.4.2 Pricing and Quotation Creation	Calculate the cost of ECPs and prepare the required document.	Unknown
		3.5.2.3.5 Maintenance Personnel Management	Administer personnel compensation and benefits activity.	Unknown
		3.5.2.3.6 Maintenance Space Management	Evaluate, plan, maintain workshop spaces and equipment.	Unknown
		3.5.2.3.7 Management of the Installed Base	Structure and maintain your installed base.	Unknown
		3.5.2.3.8 Maintenance Training Tracking/Qualifications	Track qualifications, certifications, licenses, and training.	Unknown
		3.5.2.3.9 Production Planning & Control	Perform material planning, material design, and design of production execution.	Unknown
		3.5.2.3.10 Installation Management	Manage internal and external products.	Unknown
		3.5.2.3.11 Scheduled Inspection Tracking/Scheduling	Notify and schedule equipment inspections.	Unknown
		3.5.2.3.12 Scheduled Maintenance Tracking/Scheduling	Notify and schedule equipment preventative maintenance.	Unknown
		3.5.2.3.13 Maintain Engineering Unit Visibility/Status	Provide engineering process/progress status and tracking against project plans/schedules.	
		3.5.3 Mobility, Transportation and Movement Logistics	Mobilize/transport personnel and equipment.	Unknown
		3.5.3.1 Transportation/Movement	Transport personnel, supplies and equipment.	Unknown
		3.5.3.1.1 Distribution/Transportation	Schedule and move supplies and equipment from supply depots and distribution point to end users.	Unknown
		3.5.3.1.2 Loading/Unloading	Loading/unloading activities: scheduling, storage points, freight/personnel forwarding etc..	Unknown
		3.5.3.1.3 Packaging/ Unpacking/ Preparation/ Marking	Conduct pre-shipping of supplies & material.	Unknown
		3.5.3.1.4 Handling Unit Management	Track the movements of entire handling units and the materials they contain rather than tracking each material individually.	Unknown
		3.5.3.1.5 Transportation/Movement Tracking	Track items, manifests and orders across the supply chain.	Unknown
		3.5.3.2 Transportation/Movement Planning	Plan logistical support for op plans	Unknown
		3.5.3.2.1 Manifesting Cargo, Equipment, Personnel	Plan for capacity, identify shortfalls, risk management.	Unknown
		3.5.3.2.2 Requirements Analysis/Generation	Develop/document transportation requirements for support of planned operations.	Unknown
		3.5.3.2.3 Scheduling/Prioritization	Determine shipping and personnel transportation priorities given fixed resources.	Unknown
		3.5.3.2.4 Transportation Asset Availability	Determine transportation resources.	Unknown
		3.5.3.2.5 Transportation Asset Capacity	Determine cargo and personnel transportation load capacity for given resources.	Unknown
		3.5.4 Supply Logistics	Functions to support enterprise supply.	Unknown
		3.5.4.1 Service Management	Manage service of supplied products, processing service orders, service agreements/contracts administration, controlling service operations and workflow.	Unknown
		3.5.4.1.1 External Services Management	Functions for the complete cycle of bid invitation, award/order placement phase, and acceptance of services, as well as the invoice verification process.	Unknown
		3.5.4.1.2 Distribution of Service Master Records	Provides Application Link Enabling (ALE) to distribute service master records from a central system among several local systems.	Unknown
		3.5.4.1.3 Catalogue & Identify	Assign and organize systems, components, parts.	Unknown
		3.5.4.1.4 Serial Number Management	Identify and differentiate between individual items of material.	Unknown
		3.5.4.1.5 Consumption-Based Planning	Use the forecast or other statistical procedures to determine future requirements.	Unknown
		3.5.4.1.5.1 Carrying Out the Forecast	Calculating the forecast values, calculate the safety stock and the reorder level, ex-post forecast, monitor the selected forecast model	Unknown
		3.5.4.1.5.2 Carrying Out the Planning Run	Total planning, single-item, single-level planning, multi-level single-item planning, interactive planning, multi-level, make-to-order production, individual project planning	Unknown
		3.5.4.1.5.3 Evaluate Planning Result	Evaluate the planning results in consumption-based planning.	Unknown
		3.5.4.1.5.4 Maintain Parameters Using Profiles	Maintain forecast parameters.	Unknown

Function	Definition	Definition Source
3.5.4.1.6 Distribute and Manage Technical Data	Technical Data includes acquiring, producing, updating, managing, storing, and distributing technical data products and services. These products and services are used by the war fighter and other customers to support operations, <u>maintenance and life cycle</u>	Unknown
3.5.4.1.7 Maintain Parts Information	Provide system, component and part breakdowns, integrated lists for troubleshooting, ordering etc. Information may include, specifications, manuf/stocking/delivery/shelf life dates and other data to insure war fighting capability.	RDA CHENG
3.5.4.1.8 Fuels Management	Manage of DoD Fuels Logistics and financial business within the Defense Working Capital Fund.	Unknown
3.5.4.1.8.1 Aircraft Fuel Dispatching	Dispatch and bill fuels to aircraft.	Unknown
3.5.4.1.8.2 Automated Fuel Handling	Monitor and control an entire fuel distribution system (tanks, valves, pumps, etc.) of a bulk fuel terminal.	Unknown
3.5.4.1.8.3 Automated Tank Gauging	Monitor bulk petroleum products regardless of weather and ensure the safety of personnel.	Unknown
3.5.4.1.8.4 Fuel Inventory Accounting	Track fuel inventory by location and type.	Unknown
3.5.4.1.8.5 Fuel Transportation Management	Distribute and track fuels.	Unknown
3.5.4.1.8.6 Retail Billing	Provides for fuels account receivables	Unknown
3.5.4.1.9 Inventory Management	Monitor status of inventory across the enterprise.	OMB SRM 1/29/03
3.5.4.1.9.1 Goods Issue	Post a material withdrawal, a material issue, or a shipment of goods to a customer.	Unknown
3.5.4.1.9.2 Goods Movement	Facilitate material transactions resulting in a change in stock.	Unknown
3.5.4.1.9.3 Goods Receipt	Receive goods from an external vendor or from production.	Unknown
3.5.4.1.9.4 Inventory Management and Physical Inventory	Manage material stocks on a quantity and value basis; plan, entry, and document all goods movements; carrying out physical inventory.	Unknown
3.5.4.1.9.5 Stock Transfer	Functions to remove materials from storage in one storage location and place them in another storage location. Stock transfers can occur either within one plant or between two plants or company codes.	Unknown
3.5.4.1.9.6 Subsequent Delivery Processing	In goods-receipt-based invoice verification, you can post goods receipts as subsequent deliveries for previous goods receipts by referencing the original goods receipt document. In this process, the system copies the original reference document number to the new material document, thereby maintaining the link between the goods receipts and the corresponding invoice.	Unknown
3.5.4.1.9.7 Predict Asset Re-supply	Determine re-supply requirements based on consumption rates. Consumption based planning.	RDA CHENG
3.5.4.7.9.8 Transfer and Allocate Assets	Formally transfer/assign assets custody	RDA CHENG
3.5.4.1.10 Logistics Management	Provides process tools for all aspects of logistics.	OMB SRM 1/29/03
3.5.4.1.10.1 Product Lifecycle Management	Create, maintain and make available product information in the whole company and for the entire life cycle of a product.	Unknown
3.5.4.1.10.2 Engineering Collaboration	Integrate external and internal partners into a development process.	Unknown
3.5.4.1.10.3 Lifecycle Change and Configuration Management	Lifecycle Change Management supports all central logistics processes, from the development process through production right up to the maintenance of the delivered product.	Unknown
3.5.4.1.10.4 Program Management	Optimize business processes from project planning through to carrying out the project and enable a project progress analysis.	Unknown
3.5.4.1.11 Maintenance Planning & Scheduling	Conduct planned and unscheduled maintenance. Coordinate/sequence, schedule, material, personnel, equipment, facilities, transportation, cost and infrastructure.	Unknown
3.5.4.1.12 Manufacturing and Production	Provides typical production control functions. Can provide various degrees of automation.	OMB SRM 1/29/03
3.5.4.1.13 Provide Procurement Aids	Provide a fully functional automated information system (AIS) which will standardize the procurement business practices and data elements by promoting the use of the same automated contracting procedures throughout DOD.	Unknown
3.5.4.1.13.1 Requisition Processing	Identify, expedite and maintain requisitions	Unknown
3.5.4.1.13.2 Support Development of Procurement Requirements	Create, copy, modify, or cancel a procurement request	Unknown
3.5.4.1.13.3 Access Procurement Data	Search and retrieve electronic signatures, contractor performance, local operational data, corporate shared data	RDA CHENG
3.5.4.1.14 Purchasing	Acquire goods and services requested	Unknown
3.5.4.1.14.1 Conditions and Price Determination	Determine pricing stipulations and conditions	Unknown

		<b>Function</b>	<b>Definition</b>	<b>Definition Source</b>
		3.5.4.1.14.2 Logistics Invoice Verification	Verify invoices in terms of their content, prices, and arithmetic.	Unknown
		3.5.4.1.14.3 Outline Purchase Agreements with Vendors	Provides functionality for entering into longer-term purchasing arrangements with vendors regarding the supply of materials or the performance of services.	Unknown
		3.5.4.1.14.4 Perform Periodic Declarations	Provides functions for foreign trade processing, when required to record imports and exports and periodically declare them to the customs authorities.	Unknown
		3.5.4.1.14.5 Procurement in Materials Management	External procurement in the MM System centers around a general cycle of activities.	Unknown
		3.5.4.1.14.5.1 Create and Change Inbound Deliveries	Create and edit all the deliveries that are planned.	Unknown
		3.5.4.1.14.5.2 Display Alerts	Use the alerts to decide whether it is necessary to change the dates and quantities for a procurement element, to create new procurement elements or to delete old ones.	Unknown
		3.5.4.1.14.5.3 Display and Confirm Scheduling Agreement Releases	View releases directly in the manufacturers' system and get information about quantities and delivery dates.	Unknown
		3.5.4.1.14.5.4 Display Pricing Information	View the price agreements that exist between the supplier and the manufacturer.	Unknown
		3.5.4.1.14.5.5 Display Purchasing Document Information	View purchasing information in the manufacturers' system.	Unknown
		3.5.4.1.14.5.6 Display Settlement Status	Display invoice documents that have been created for the goods receipts in the customer system.	Unknown
		3.5.4.1.15 Scheduling and Delivery	Establish agreements with vendors for delivery of products and services.	Unknown
		3.5.4.1.16 Supply Chain Planning (SCP)	A subset of SCM, SCP applications assist in the process of coordinating assets to optimize the delivery of goods, services and information from supplier to customer, balancing supply and demand.	Unknown
		3.5.4.1.16.1 Catalog Management	Update catalogue item availability based on sales and incoming and outgoing shipping data.	Unknown
		3.5.4.1.16.2 Order Tracking	Update status of orders with projected availability and shipping data.	OMB SRM 1/29/03
		3.5.4.1.16.3 Ordering / Purchasing	Maintain electronic sales and revenue collection.	OMB SRM 1/29/03
		3.5.4.1.16.4 Sales and Distribution	Control and manage the sales and distribution cycle.	Unknown
		3.5.4.1.16.4.1 Availability Check and Requirements in Sales & Distribution	Provides functions for post sales processing and coordination.	Unknown
		3.5.4.1.16.4.2 Billing	Billing represents the final processing stage for a business transaction in Sales and Distribution.	Unknown
		3.5.4.1.16.4.3 Credit and Risk Management	Minimize credit risk by specifying a specific credit limit for customers.	Unknown
		3.5.4.1.16.4.4 Customer Service Processing	Plan and manage a wide range of service scenarios. It includes functions for processing: Service Notifications; Warranties; Service orders; Service Contracts; Service Quotations; and Repair Orders.	Unknown
		3.5.4.1.16.4.5 Foreign Trade / Customs	Manage import and export processes.	Unknown
		3.5.4.1.16.4.6 Output Determination	The Output Determination component offers output functions for sales, shipping, transportation, and billing to help manage sales transactions with customers and within the company.	Unknown
		3.5.4.1.16.4.7 Payment Card Processing	Maintain payment cards in a variety of business environments.	Unknown
		3.5.4.1.16.4.8 Pricing and Conditions	Calculate prices (for external use by customers or vendors) and costs (for internal purposes, such as cost accounting). Conditions represent a set of circumstances that apply when a price is calculated.	Unknown
		3.5.4.1.16.4.9 Shipping and Transportation	Transport goods to customer.	RDA CHENG
		3.5.4.1.16.5 Sourcing Management	Functions for vendor purchasing/ordering.	OMB SRM 1/29/03
		3.5.4.1.17 Support Equipment Management	Support equipment planned/unplanned maintenance, calibration, record keeping, budgeting, consumables planning, requirements planning activities.	Unknown
		3.5.4.1.17.1 Manage Transportation	Plan and procure freight movements, freight rating and shipping across all modes, select the appropriate route and carrier, and manage freight bills and payments.	Unknown
		3.5.4.1.17.2 Support Warehouse Management	Manage the operations of a warehouse or distribution center.	Unknown
		3.5.4.1.18 Workload Planning	Assist in projecting HR requirements across an enterprise or project to meet goals and objective. Identifies shortfalls, risk points in order to develop alternatives and mitigate risk.	Unknown
		3.6 Service Process Optimization	Track and allocate the major resources of services companies or departments namely people, intellectual capital, and time to their output (proposals, contracts, projects, and reports).	Unknown

Function	Definition	Definition Source
3.6.1 Analytics and Forecasting	SPO/PSA analytics makes use of intelligence capabilities to store, stimulate, report, forecast and exploit the knowledge gained from each project to improve planning, increase ROI, decrease inefficiencies in the purchasing organization, and forecast potential profitability.	Unknown
3.6.1.1 Portfolio Management (PfM)	Integrates performance and mission objectives into budget process; determines which investments provide the best balance of return, cost and risk. Improves and lowers the cost of logistics business processes	Unknown
3.6.1.2 Reporting/Forecasting	Gather information to report on progress and setbacks, client satisfaction, create updated forecast, and use the information/ intelligence obtained to feedback into the system and improve the service delivery process.	Unknown
3.6.1.3 Risk Management	Monitor critical project variables and calculate risk throughout their cycle.	Unknown
3.6.1.4 What If Analysis	Identify and correct undesirable results before they happen by providing end results as critical variables are manipulated.	Unknown
3.6.2 Knowledge Management	Identify, manage, and share all of an enterprise's information assets. Allows decision makers to collaborate, to add commentaries to reports and key figures, to automate approval processes, and thereby participate in decision-making within the wider context of the enterprise. Knowledge Management is further broken down into content management and collaboration.	OMB SRM 1/29/03
3.6.2.1 Categorization	Identify and classify electronic documents into a taxonomy of subject categories. Allows the automatic extraction of exact information from a knowledge repository.	OMB SRM 1/29/03
3.6.2.2 Information Mapping / Taxonomy	Provide links, pointers to sources of information and data (catalogs) vice "knowledge".	OMB SRM 1/29/03
3.6.2.3 Information Retrieval	Search information repositories and returns informs on the existence (or non-existence) and whereabouts of documents relating to the search request.	OMB SRM 1/29/03
3.6.2.4 Information Sharing	Implement information sharing networks.	OMB SRM 1/29/03
3.6.2.5 Knowledge Capture	Evaluate enterprises structured/unstructured, internal/external, content/context, operational/strategic for cataloging.	OMB SRM 1/29/03
3.6.2.6 Knowledge Discovery	Perform data and web mining.	OMB SRM 1/29/03
3.6.2.7 Knowledge Engineering	Processes that focus on data and information representation and encoding methodologies, data repositories, work flow management, groupware technologies, etc.	OMB SRM 1/29/03
3.6.3 Opportunity Management	Manage outward-facing/ CRM-related functions.	Unknown
3.6.4 Pricing/Costing	Track differences between historical bids and actual project costs.	Unknown
3.6.5 Process Automation Services	Provide enterprise automation development.	OMB SRM 1/29/03
3.6.5.1 Routing and Scheduling	Develop delivery and service call routing and scheduling.	OMB SRM 1/29/03
3.6.5.1.1 Business Rule Management	Analyze businesses processes to identify choke points and subsequent expediting.	OMB SRM 1/29/03
3.6.5.1.2 Correspondence Management	Manage electronic flow of documents.	OMB SRM 1/29/03
3.6.5.2.3 Case Management	Track special activities/projects status/progress.	OMB SRM 1/29/03
3.6.5.2.4 Performance Tracking	Track specific process attributes or points.	OMB SRM 1/29/03
3.6.5.2.5 Problem / Issue Tracking	Track specific issues status.	OMB SRM 1/29/03
3.6.5.2.6 Process Tracking	Track process performance.	OMB SRM 1/29/03
3.6.6 Resources and Project Management	Break down a project into smaller tasks and assign resources to manage the overall project.	Unknown
3.6.6.1 Program / Project Management	Provide a wide range of functions and tools to facilitate project management.	OMB SRM 1/29/03
3.6.6.1.1 Develop Projects Plan	Develop project requirements for and track expenditures of costs, including temporary duty funds, for verification efforts, witnessing validation, and attending IPRs	Unknown
3.6.6.1.2 Project Accounting	Functions which track status of project expenditures against budget with projections.	Unknown
3.6.6.1.3 Project Control	Support project requirements and track expenditures, including temporary duty funds, TM changes, IPRs, and validation/verification efforts	Unknown

Function	Definition	Definition Source
3.6.6.1.4 Project Definition, Scheduling, Coordination	Define project goals/deliverable products and lay-out an integrated execution plan which coordinates/sequences schedule, material, personnel, equipment, facilities, transportation and infrastructure to manage risk and insure successful completion.	Unknown
3.6.6.1.5 Project Estimating	Prepare bids that include material, manpower, facilities, schedule factors. May also provide portability into project management applications for execution.	Unknown
3.6.6.1.6 Project Purchasing	Track project purchasing activities. Integrate into the enterprise purchasing process/system.	Unknown
3.6.6.1.7 Project Scheduling	Coordinate resources in and between projects; internal and external to the enterprise. Resources such as skilled manpower equipment, facilities, equipment etc.	Knowledgestorm
3.6.6.1.8 Resource Planning	Material, manpower, facilities, resource planning. May also provide portability into project management applications for execution. Facilitates determination of resource availability and conflicts.	Knowledgestorm
3.6.6.2 Project and Process Management	Track status of project/process progress and identify problems. May provide percentage complete, completion dates for project phases, financial cost to complete projections.	Unknown
3.6.6.3 Process management and time tracking	Track incremental progress of items flowing in a process. Expedite and identify problem areas for process improvement.	Unknown
3.6.6.4 Support Safety	Plan, monitor, execute, and report safety policies, procedures, and practice.	Unknown
3.6.6.4.1 Hazardous Material Handling	Maintain records related to handling and movement of hazardous materials (HAZMAT).	Unknown
3.6.6.4.2 Safety Data Management	Store and analyze safety related data, metrics, audits, mishap investigation.	Unknown
3.6.6.5 Time/Scheduling	Schedule tasks, assignments and goals to individuals as well as set critical timetables and deadlines for projects.	Unknown
3.6.6.6 Travel	Perform travel planning and administration.	Unknown
3.6.6.6.1 Travel Management	Provide seamless, paperless, temporary duty (TDY) & travel that meets the needs of Individual military/government travelers, Commanders/Supervisors and Process owners.	Unknown
3.6.6.6.1.1 Change of Station: Temp / Perm	Plan and execute temporary and permanent changes in duty-station.	Unknown
3.6.6.6.1.2 Order Writing	Write orders in conjunction with travel.	Unknown
3.6.6.6.1.3 Travel Planning & Arrangements	Determination travel requirements, alternatives and bookings/reservations for transportation and lodging.	Unknown
3.6.6.6.1.4 Travel Records Management & Retention	Store completed travel records for audit, re-use.	Unknown
3.6.6.6.1.5 Travel Report Management & Retention	Store completed travel reports for audit, re-use.	Unknown
3.6.6.6.1.6 Manage Travel Allowances	Maintain reimbursable travel charge limits by geographic area; per diem, hotel rates, rental cars etc.	RDA CHENG
3.7 Maintain Analytical and Statistical Data	Collect and process data for research and analysis functions, in the scientific, business domains and media domains.	RDA CHENG
<b>4.0 Enterprise Application Support Services</b>	Provide User IT Support. Support enterprise users with general IT functions . Includes personal productivity tools and individual tailoring of automated capabilities for the end users. Support applications are common applications (e.g., word processing, spreadsheets) beyond BNIDS that can be standardized across individual or multiple mission areas to support enterprise wide user requirements. Support applications can provide a mission-specific service or they can provide general service.	Unknown
4.1 Perform Briefing and Presentation Services	Create, edit, format, manipulate and display slides and handouts for presentations.	Unknown
4.2 Perform Calculation Services	Perform routine and complex arithmetic calculations.	ITSG
4.2.1 Perform Currency Conversion	Conduct two way currency conversion based on current market exchange rate.	Unknown
4.2.2 Calendaring	Schedule and view resources. Reduce the time needed to schedule meetings and identify and reserve required resources, including people, conference rooms, and equipment such as overhead projectors.	ITSG
4.2.2.1 Manage Appointments	Manage events, seminars, meetings, and/or activities in a convenient calendar format.	Unknown
4.2.2.2 Shared Calendaring	Integrate and balance requirements, events, commitments and availabilities between many calendars.	OMB SRM 1/29/03
4.2.3 Perform Scheduling Tasks	Schedule meeting and facilities based on calendars and availabilities.	Unknown
4.2.3.1 Perform Course Scheduling	Provide course scheduling based on facilities, instructor, student, availabilities.	Unknown
4.2.3.2 Perform Flight Scheduling	Develop flight schedules based on aircrew/aircraft availability, mission requirement data.	Unknown

Function	Definition	Definition Source
4.2.3.3 Perform Resource Scheduling	Develop schedules based on instructor, classroom, equipment resource availabilities.	Unknown
4.2.3.4 Perform Student Scheduling	Develop student schedules based on prerequisites and availabilities.	Unknown
4.2.4 Perform Task Management	Provide project status/tracking online meetings (net meeting), discussion threads, scheduling.	Unknown
4.2.4.1 Maintain Address Book	Maintain address book.	Unknown
4.2.4.2 Maintain Journal	Provide a historical timeline record of project activities and events. Uses date stamping of, appointments, meetings, emails, completion dates. and other	Unknown
4.2.5 Provide Team Support	Provide for document-based collaboration, targeted at teams with self-administration. They do not include e-mail capability, which is assumed to be already in place.	Unknown
4.2.6 Conduct Threaded Discussions	Conduct asynchronous "conversations" on the Web.	OMB SRM 1/29/03
4.2.7 Conduct Audio Conferencing	Conduct single or multiple internet meetings through a provider.	OMB SRM 1/29/03
4.2.8 Manage Desktop Communication Applications	Maintain permissions, accounts and passwords for desktop communication applications.	OMB SRM 1/29/03
4.2.9 Manage Events/News	Take registrations and process payments online for news, meetings and events.	OMB SRM 1/29/03
4.2.10 Conduct Instant Messaging	Conduct instant messaging.	RDA CHENG
4.2.11 Perform Real-Time / Chat	Host and participate in live back-and-forth conversation on the Internet by means of typing on the computer keyboard.	OMB SRM 1/29/03
4.2.12 Perform Real-Time Collaboration	Interaction between participants in real time, in a meeting or presentation format. They include application sharing and shared whiteboard	Unknown
4.2.13 Conduct Video Conferencing	Conduct VTCs	Unknown
4.2.14 Encrypt Data	Encode and decode data so that an unauthorized party cannot decipher it, and includes the following subsegments.	Unknown
4.2.15 Manage and Manipulate File and File Systems	Browse, copy, delete, properties, synchronize, compare, etc.	DON CIO
4.2.15.1 Duplicate CDs	Duplicate single or multiple CDs.	Unknown
4.2.15.2 Perform Data Compression	Reduce the file size thereby reducing disk space	Unknown
4.2.16 Scan Labels and Identifiers	Scans IR/OCR barcodes and text characters for entering or retrieving detailed item data. POS transactions, inventory etc.	Unknown
4.2.16.1 Scan Bar Codes	Scan IR barcodes for entering or retrieving detailed item data. POS transactions, inventory etc.	Unknown
4.2.16.2 Scan Business Cards	Scan OCR text characters for entering or retrieving detailed item data.	Unknown
4.2.16.3 Perform Context Searches	Conduct context-sensitive searches which break the search results down into sensible categories, based on the content of the pages. the engine finds.	Unknown
4.2.16.4 Perform Free Text Searches	Search on a text string.	OMB SRM 1/29/03
4.2.16.5 Perform Keyword Searches	Search on a single word.	OMB SRM 1/29/03
4.2.16.6 Perform Parametric	Search based on attributes. Part numbers, performance criteria etc.	OMB SRM 1/29/03
4.3 Create, Manipulate, Produce, and Convert Documents	Manipulating styles, formats, file types.	Unknown
4.3.1 Convert Documents	Convert/export documents, graphics to different formats. Used for security and portability.	OMB SRM 1/29/03
4.3.2 Produce PDF Documents	Convert various types of documents to Portable Document Format. Adobe Acrobat.	Unknown
4.3.3 View Documents	View document formats, including popritary formats.	PEO IWS
4.3.4 Create Fonts	Design font attributes for use in word processing and graphics programs.	Unknown
4.3.5 Perform Word Processing	Create, edit, format and manipulate text documents including the insertion of multimedia objects	Unknown
4.3.5.1 Reference Documents	Format references using a number of styles.	OMB SRM 1/29/03
4.3.5.2 Revise Documents	Word processing functions which automatically number revisions when saved	OMB SRM 1/29/03
4.3.5.2.1 Create Document Versions	Word processing functions that save snapshot versions of a document.	OMB SRM 1/29/03
4.3.5.2.2 Archive Completed Documents	Store documents in a compressed format.	Unknown
4.3.5.2.3 Preserve Previous Versions	Document save functions that annotate document properties every time the document is saved	Unknown
4.3.5.3 Index Documents	Create document index from chapters, sections, paragraphs.	OMB SRM 1/29/03

Function	Definition	Definition Source
4.3.5.4 Provide and Support Templated/Form Documents	Document functions providing styles and formats.	Unknown
4.3.5.4.1 Produce and Manipulate Forms	Document functions that that facilitate form design and electronic completion.	Unknown
4.3.5.4.2 Produce Labels	Functions to produce styles, templates for producing labels	Unknown
4.3.5.4.3 Produce and Manipulate Resumes	Format styles and templates for producing resumes.	Unknown
4.3.5.5 Spell and Grammar Check Documents	Functions for automatically spell and grammar checking.	Unknown
4.4 Produce and Manage Audio and Graphic Media	Develop audio and graphical media. Support editing, formatting, distribution, filing, and archiving.	Unknown
4.4.1 Produce Audio and Music	Produce music and audio, either as digital or analog media	Unknown
4.4.2 Perform Desktop Publishing	Produce electronic and printed documents. Provide tools for formatting, layout of text and graphics.	Unknown
4.4.3 Support Development of Graphics	Create and edit graphics, photographs and mixed media.	Unknown
4.4.4 Provide and Manage Clipart	Maintain graphics media.	Unknown
4.4.5 Support Development of Presentations	Assemble presentations from a collection of different media types and sources. Provides features for enhancing presentation flow and consistent style.	Unknown
4.4.6 Support Media Management	Facilitate graphic, video and audio production workflows.	Unknown
4.4.7 Store and Retrieve Imagery	Store, preview and retrieve different multimedia types.	Unknown
4.4.8 Produce and Manipulate Video (Pro)	Assemble/edit clips, graphics and segments into a final media production including adding transitions, special effects and text.	Unknown
4.5 Business Intelligence and Data Warehousing	Store, access and analyze data in a data warehouse. This includes online analytical processing (OLAP) tools, executive information systems, query-and-reporting tools, multidimensional tools and decision support systems.	Unknown
4.6 Data Mining	Discover meaningful new correlation, patterns and trends sifting through large amounts of data stored in repositories, using pattern recognition technologies and statistics.	Unknown
4.7 Data Management Services	Provide for the independent management of data shared by multiple applications. These services support the definition, storage, and retrieval of data elements from Database Management Systems.	Unknown
4.7.1 Archive Data	Periodically archive data based on usage access or other system requirements.	SPAWAR
4.7.2 Conduct Data Storage/Retrieval/Updating	Store data in a single, discrete source to facilitate retrieval, update, and storage of new data.	SPAWAR
4.7.3 Conduct Database Queries	Perform data base queries to support the retrieval of needed data.	SPAWAR
4.7.4 Data Administration	Provide tools which improve data quality, security, ease of access, and reduces the redundancy of the data. Formulation of data standards and access policies.	Unknown
4.7.4.1 Meta Data Management	Facilitate data modeling, data attribute development.	OMB SRM 1/29/03
4.7.5 Data Cleansing and Quality	Improving the integrity of data in a database	OMB SRM 1/29/03
4.7.6 Data Integration	Provide transformation and intelligent routing, and business process management or a message warehouse including development tools for defining transformation rules and routing flows, security facilities, and administration and monitoring facilities to manage broker configuration.	Unknown
4.7.7 Data Loading	Load data to applications in the proper structure while insuring data integrity.	OMB SRM 1/29/03
4.7.8 Data Migration	Move/convert data when for example consolidating duplicate systems that spring from mergers/acquisitions, moving applications to distributed platforms, and modernizing existing applications. Ensures that data is properly transferred and transformed and that the relationships that make the information useful are preserved.	Unknown
4.7.9 Data Transformation and Translation	Pull data out of one database and placing it into another of a different type (gartner), name change DON CIO	DON CIO
4.7.10 Delete data	Remove/discard stored data as required.	SPAWAR
4.7.11 Maintain data integrity	Ensure data storage process does not alter stored data in a manner that compromises the integrity of the data	SPAWAR
4.7.12 Perform Data Correlation	Use defined rule sets/criteria to identify and correlate data.	SPAWAR
4.7.13 Protect data	Store data in a manner that protects it from loss due to fire, water damage, information operation threats, and Electromagnetic Pulse (EMP).	SPAWAR
4.7.14 Provide Data Fusion Services	Use defined rule sets/criteria to fuse data from different sources as a single entity while maintaining individual data tags.	SPAWAR

Function	Definition	Definition Source
4.7.15 Provide visibility of data storage infrastructure	Display status of data storage infrastructure in order to efficiently manage storage capacity.	SPAWAR
4.7.16 Route Information	Maintain a database of route history for all mission planning and platform activities.	SPAWAR
4.8 Document Management Services	Document management services are analogous to information management services, providing other environments with the means to access and manipulate documents—either text only or some combination of data, text, voice, graphics, and image (a compound document).	Unknown
4.8.1 Control Document Distribution	Electronically delivering documents. List management.	Unknown
4.8.2 Document / Correspondence / Content Management	Build, deploy, and maintain mission-critical, content-rich Web sites.	Unknown
4.8.3 Document Management	This segment covers products for management of documents and document production processes in a collaborative environment. It does not include content management systems intended purely to support Web content created for publication. These systems include basic document library functionality with version control and check-in/check-out abilities.	Unknown
<b>5.0 Enterprise System Services</b>	Provide enterprise wide IT infrastructure (RF Communications, Satellite, intranet, internet).	Unknown
5.1 Data Interchange Services	Provide data interchange, storage, retrieval and update for databases.	Unknown
5.2 Control Operation of Computer	Control scheduling, allocation, and sequencing of computer system resources and operations.	Unknown
5.3 Provide Network Applications Services	System functions that provide the capability to access and use applications on the network.	SPAWAR
5.3.1 - Determine Equipment Availability	Maintain status of system/equipment "on time" and maintenance time to determine availability.	SPAWAR
5.3.2 Determine Equipment Capability	Maintain a data base of equipment characteristics and performance to predict equipment capability.	SPAWAR
5.3.3 Determine Equipment Performance	Maintain status of circuits, communication paths, communication plans and networks to determine equipment performance.	SPAWAR
5.3.4 Determine Equipment Position	Maintain a database of the location of all equipment.	SPAWAR
5.3.5 Disseminate operational/tactical information	Exchange/share operational/tactical information throughout the network with geographically dispersed users.	SPAWAR
5.3.5.1 Build information dissemination delivery plan	Build an end-to-end information delivery plan based on user information requirements, mission priorities, dissemination policy, and available transport resources.	SPAWAR
5.3.5.2 Monitor information flow	Monitor and track information flow to identify trends; for forecasting volume, content, Quality of Service (QoS) and Class of Service (CoS) consistent with information and mission requirements; and for predicting the results of information control measure	SPAWAR
5.3.5.3 Filter information from multiple sources	Provide means to filter unnecessary information based on predetermined level of fidelity.	SPAWAR
5.3.5.4 Manage information delivery	Provide functionality to assign attributes (priority, QoS, etc.) to information that will govern its dissemination and provide means to convey attributes to the transport system.	SPAWAR
5.3.5.5 Manage user profile	Build profiles based on collaboration of information requests from users.	SPAWAR
5.3.5.6 Provide directory services	Provide network directory services (e.g. file, directory, security, messaging, Web, white pages, object services, etc.) with minimal personal intervention.	SPAWAR
5.3.5.7 Store semantic information on data	Permit retrieval of data and standardized semantic tagging information pertaining to data including source reference, classification, releasability, transport priority, and other quality of service functions.	SPAWAR
5.3.5.8 Submit information requirements	Provide capability for user to submit information requirements to other network users/information producers.	SPAWAR
5.3.5.9 Translation/Forwarding (T/F)	Processing and hardware interfaces shall be provided that permit exchange of data between data links. T/F shall support both link to link and multi-link operations as described in the below subparagraphs. Operator control on the T/F function shall be provided.	SIAP WG
5.3.5.9.1 T/F Control	Processing shall be provided for operator control of the T/F functions. Control functions shall consist of control of the router and data link filters.	SIAP WG
5.3.5.9.1.1 Router Control	Processing shall be provided to allow the operator to control the routing for transferring data between data links. Default control parameters shall be used at system initialization. The operator shall have the ability to set the router at system initializations and concurrently during operations	SIAP WG

Function	Definition	Definition Source
5.3.5.9.1.2 T/F Filters	Processing shall be provided for filtering transmit and receive data on each active link interface Filters shall be applied as specified in the applicable data link standard. Default filters shall turn all filters off at system initialization. The operator shall have the ability to set the filters at system initialization and concurrently during operations.	SIAP WG
5.3.5.9.2 Forwarding Participating/Reporting Unit (FPU/FRU) Operation	Processing shall provide the capability for own-unit to function as an FJU forwarding data between TADIL-J and both TADIL-A and TADIL-B in accordance with the requirements of MIL-STD-6016. Processing shall provide the capability for own-unit to function as a FPU/FRU forwarding data between TADIL-A and TADIL-B links in accordance with the requirements of MIL-STD-6011. Processing shall provide the capability to function as a data forwarder to OTH shipboard and land-based TADIL-J participants utilizing the Joint Range Extension Protocol (JREP).	SIAP WG
5.3.5.9.2.1 Forwarding NATO Link-1	Processing shall provide the capability to automatically exchange data between NATO Link-1 and TADIL-A, NATO Link-1 and one or more TADIL-B links in accordance with the requirements of Standard NATO Agreement (STANAG) 5601; NATO Link-1 and TADIL J; and NATO Link-1 and ATDL-1.	SIAP WG
5.3.5.9.2.2 Forwarding ATDL-1	Processing shall provide the capability to automatically exchange data between TADIL A and one or more ATDL-1 links; TADIL B and one or more ATDL-1 links, ATDL-1 and TADIL J and ATDL-1 and NATO Link-1	SIAP WG
5.3.5.9.2.3 Forwarding GBDL	Processing shall provide the capability to automatically exchange data between TADIL A and one or more GBDL links; TADIL B and one or more GBDL links; TADIL J and one or more GBDL links; ATDL-1 and one or more GBDL links; and PPDL and one or more GBDL links.	SIAP WG
5.3.5.9.2.4 Forwarding PPDL	Processing shall provide the capability to automatically exchange TBM message data from PPDL to a TADIL J link, and one or more GBDL links.	SIAP WG
5.3.5.9.2.5 Forwarding Link-22	Processing shall provide the capability to automatically exchange data between Link-22 and TADIL J in accordance with NATO STANAG 5616, Volume II and Link-22 with TADIL A and one or more TADIL B links in accordance with the requirements of NATO STANAG 5616, Volume III	SIAP WG
5.3.6 Exchange electronic mail	Allow users at workstations and terminals to compose and exchange messages.	SPAWAR
5.3.6.1 Create and edit messages	Use word processing facilities for drafting message text.	SPAWAR
5.3.6.2 Receive messages	Receive message from sender.	SPAWAR
5.3.6.2.1 Notify user of message arrival	Indicate to user the arrival of a new message and indicate to a user during log on that there are messages in the mailbox.	SPAWAR
5.3.6.2.2 Reroute messages	Allow user who has moved, either temporarily or permanently, the ability to route incoming messages.	SPAWAR
5.3.6.2.3 Scan mailbox	Allow user to scan current contents of mailbox indicated by subject, author, date, priority, etc.	SPAWAR
5.3.6.2.4 Select message	Permit user to select individual message from mailbox for display, printing, storing in a separate file, or deletion.	SPAWAR
5.3.6.2.5 Send message reply	Reply immediately to a selected message, avoiding the necessity of keying in the recipient's name and address.	SPAWAR
5.3.6.3 Send messages	Transmit electronic mail to selected addresses.	SPAWAR
5.3.6.3.1 Access network directory	Provide listing of network addresses.	SPAWAR
5.3.6.3.2 Assign message priority	Label a message at a given priority level and notify recipient of message arrival.	SPAWAR
5.3.6.3.3 Interface with other facilities	Provide connectivity with other electronic mail systems and services.	SPAWAR
5.3.6.3.4 Provide message status	Provide notification of delivery and actual retrieval by recipient.	SPAWAR
5.3.6.3.5 Send messages on timed delivery basis	Allows sender to specify that a message is to be delivered before, at, or after a specified date/time.	SPAWAR
5.3.6.3.6 Send messages to multiple addresses	Transmit copies of message(s) to recipients identified in the message header.	SPAWAR
5.3.7 Generate Displays	Access information/data to generate associated displays.	SPAWAR
5.3.8 Provide network applications scalability	Add and/or remove network applications without manual intervention by network administrator.	SPAWAR
5.3.9 Support web browsing	Provide access to compatible products that support HTML, XML, UML, JAVA, and other components that are in compliance with the "Policy Guidance for use of Mobile Code Technologies in Department of Defense (DoD) Information Systems."	SPAWAR
5.4 Provide Network Services	Systems functions that support the switching/routing of data through a communications network.	SPAWAR
5.4.1 Assign prioritization to information transfers	Prioritize information transfers based on specific information types, mission types, and/or units and recognize the prioritization to permit appropriate routing.	SPAWAR

Function	Definition	Definition Source
5.4.2 Compress data	Eliminate gaps, empty fields, redundancies, and unnecessary data to shorten length of data blocks prior to transfer.	SPAWAR
5.4.3 Compress voice	Convert analog voice to digital data samples, then compress by eliminating gaps, redundancies, and unnecessary data to shorten the length of data blocks prior to transfer.	SPAWAR
5.4.4 Dynamically switch/route unicast (point-to-point), multicast and broadcast traffic across multiple networks	Identify source(s) and destination(s) addresses (intra-ship, off-ship within same OPAREA, off-ship destined outside OPAREA, etc.) and send data via the optimum path/link (satellite, tactical data link, point-to-point, or network radio).	SPAWAR
5.4.4.1 Identify potential data transmission paths	Determine the best paths and/or redundant paths to a destination for sending data. This also entails the use of metrics within routers.	SPAWAR
5.4.4.1.1 Analyze available bandwidth	Determine the amount of bandwidth available to send data.	SPAWAR
5.4.4.1.1.1 Dynamically allocate bandwidth	Provide bandwidth for an application based on the current load of the network.	SPAWAR
5.4.4.1.1.2 Request bandwidth allocation	Request minimum bandwidth necessary for sending data.	SPAWAR
5.4.4.1.1.3 Share available bandwidth	Sub-divide the available bandwidth between multiple applications almost instantaneously.	SPAWAR
5.4.4.1.2 Dynamically transfer data based on precedence	Transmit data sequentially over established pathway with precedence governing the order of dissemination based on a standardized prioritization schema.	SPAWAR
5.4.4.1.2.1 Perform data link control procedures	Coordinate the presence of more than two devices on a line and regulate the flow of data and compensation for transmission errors or losses. Maintain geometry for connectivity with directional antennas	SPAWAR
5.4.4.1.2.1.1 Conduct data flow control	Control the flow of data throughout the network, ensuring that network segments are not congested.	SPAWAR
5.4.4.1.2.1.2 Conduct error detection and correction	Determine whether transmission errors have occurred and, if so, correct those errors. Errors can be corrected by requesting a retransmission of the affected block of data if an error is detected, or an attempt is made to both detect and determine at the receiving end what the control transmission should have been.	SPAWAR
5.4.4.1.2.2 Transfer data	Establish a switched dedicated-connection to accommodate the simultaneous transmission of data, video, and voice traffic.	RDA CHENG
5.4.4.1.2.2.1 Establish a virtual channel connection (VCC)	Establish a logical connection between two end users through the network, providing control signaling and network management and routing information.	SPAWAR
5.4.4.1.2.2.2 Establish a call control signaling channel	Establish a control signaling channel as necessary for use in passing control signal information between the user and the network on the same channel.	SPAWAR
5.4.4.1.2.2.3 Establish a virtual path channel (VPC)	Establish all virtual channel connections (VCCs) within a VPC, connecting to the same two end stations.	SPAWAR
5.4.4.1.2.2.3.1 Establish virtual path on a semi-permanent basis	Establish a virtual path on a semi permanent basis by prior agreement, in which case, no control signaling is necessary.	SPAWAR
5.4.4.1.2.2.3.2 Establish/release a virtual path by customer control	Use a signaling virtual channel to request/release a virtual path from the network.	SPAWAR
5.4.4.1.2.2.3.3 Establish/release a virtual path via network control	Network establishes a virtual path (network to network, user to network, or user to user) for its own convenience.	SPAWAR
5.4.4.1.2.2.4 Establish Switched Virtual Circuits (SVCs) and Permanent Virtual Circuits (PVCs)	Provide both switched connections, which require call-control signaling, and dedicated channels, which are always maintained even when no data is being transmitted.	SPAWAR
5.4.4.1.2.2.5 Maintain cell sequence	Ensure sequence of transmitted cells within a virtual channel is preserved.	SPAWAR
5.4.4.1.2.2.6 Maintain quality of service with ATM	Provide quality of service specified by parameters such as cell loss ratio and cell delay variation.	SPAWAR
5.4.4.1.2.2.7 Manage existing and requested virtual channels	Oversee network functions and deny new requests for virtual channels to prevent congestion, discard cells if negotiated parameters have been violated or if congestion becomes severe or terminate existing connections.	SPAWAR
5.4.4.1.2.2.8 Monitor network usage	Monitor the input of cells to the virtual channel to ensure that the negotiated parameters are not violated.	SPAWAR
5.4.4.1.2.2.9 Negotiate traffic parameters	Provide capability to negotiate parameters (average rate, peak rate, burstiness, bandwidth requirements, and peak duration) between a user and the network for each virtual channel.	SPAWAR
5.4.4.1.2.3 Transfer data via circuit switching	Establish a dedicated communications path between two devices through one or more intermediate switching nodes, sending data as a continuous stream with a guaranteed data rate.	SPAWAR
5.4.4.1.2.3.1 Disconnect circuit	Terminate a circuit by signaling among nodes to deallocate dedicated resources.	SPAWAR
5.4.4.1.2.3.2 Establish circuit	Establish end-to-end connectivity for sending information/data	SPAWAR
5.4.4.1.2.3.3 Transfer information/data	Transmit analog voice, digitized voice, or binary data depending on the nature of the network.	SPAWAR

Function	Definition	Definition Source
5.4.4.1.2.4 Transfer data via packet switching	Simultaneously route and transmit data packets from many customers over a communications channel or telephone line, thus optimizing use of the line. By routing addressed packets from node to node until it reaches its destination, related packets may not follow the same route to that destination. Packet sequence numbers are used to reassemble the original message at the destination node.	SPAWAR
5.4.4.1.2.4.1 Transfer data via a virtual circuit	Transfer data via a temporary logical connection that is established between two stations at the start of transmission.	SPAWAR
5.4.4.1.2.4.2 Transfer data with datagram approach	Transfer data that contains source and destination address information, as well as data itself, which is routed through a packet-switching network. Packets are not required to arrive in consecutive order since the destination address is contained in all diagrams.	SPAWAR
5.4.4.1.3 Establish connection-oriented network services	Send data using a specific path that is established for the duration of a connection.	SPAWAR
5.4.4.1.4 Establish optimum connection-oriented network services	Determine the best path for routing information contained in any IP packet between the source and destination system and reserve network services to ensure consistent grade of service.	SPAWAR
5.4.4.1.5 Establish connectionless network services	Pass data using a protocol in which the source and destination addresses are included inside each packet so that a direct connection between nodes is not required for communications. In a connectionless service, data packets may not reach their destination in the same order in which they were sent.	SPAWAR
5.4.4.1.6 Establish encrypted, protected wireless network services	Extend wireless network and point-to-point services for secure traffic throughout the Battle Force (ships, aircraft, subs and USMC assault and landing forces) and connectivity to expeditionary forces.	SPAWAR
5.4.4.1.6.1 Establish initial association between nodes	Exchange identities and addresses of participating nodes for determining access points and facilitating the routing and delivery of data.	SPAWAR
5.4.4.1.6.1.1 Authenticate wireless network association	Positively identify a node as a valid wireless network participant.	SPAWAR
5.4.4.1.6.1.2 Disassociate nodes on a wireless network	Notify an access point on a network of a pending termination of an existing association.	SPAWAR
5.4.4.1.6.1.3 Reassociate nodes on a wireless network	Provide capability for an established association to transfer from one access point to another on the network.	SPAWAR
5.4.4.1.7 Limit scope and impact of multicast traffic on network	Use protocols that allow a multicasting application to negotiate with routers, switches and clients to determine the devices that belong to a multicast group.	SPAWAR
5.4.4.1.8 Maintain network-related information	Cache addresses of remote hosts and other information on advertised network services.	SPAWAR
5.4.4.1.9 Manage network operations	Utilize control signals as means to establish and terminate connections and maintain network operations.	SPAWAR
5.4.4.1.9.1 Automatically generate and display network status	Present an integrated/correlated presentation of networks and associated network assets.	SPAWAR
5.4.4.1.9.2 Conduct performance management	Monitor, test, activate, deactivate, log, and report on circuit connections of all controllable network resources in order to determine operating level and make adjustments as necessary to improve performance. Manually enter, store, and display the status of non-controlled network assets.	SPAWAR
5.4.4.1.9.2.1 Manage network functions from distributed locations	Provide functionality for managing common user networks from more than just one central location.	SPAWAR
5.4.4.1.9.2.2 Map network topology and parameters	Provide automated mapping of network topology and display record of traffic flow data, trend analysis, spectrum planning and management, propagation analysis, electromagnetic resolution, and electronic key management.	SPAWAR
5.4.4.1.9.3 Perform account management	Track the use of network resources in order to optimize performance and maximize efficiency of network operations.	SPAWAR
5.4.4.1.9.4 Perform automated fault management	Facilitate the detection, isolation, diagnosis, fault tracking, correction, and historical archiving of abnormal operations.	SPAWAR
5.4.4.1.9.5 Perform dynamic configuration management	Provide appropriate software and set of attributes and values for network devices to facilitate network initialization, graceful degradation, and shut down.	SPAWAR
5.4.4.1.9.5.1 Automatically configure the network	Provide software and set of attributes and values to facilitate automatic configuration of networks based on designed communications plan.	SPAWAR
5.4.4.1.9.5.2 Automatically reconfigure the network	Reconfigure network to alternate equipment in the event of failure(s) or changing requirements based on designed communications plan.	SPAWAR
5.4.4.1.9.5.3 Electronically store/distribute communications plans	Provide designed communications plans electronically to all network participants in order to download and implement a specific plan rapidly with minimum manual intervention.	SPAWAR
5.4.4.1.9.5.4 Manually configure/reconfigure the network	Provide hardware and software required for network operators and managers to manually control radios, switches, and communications configurations.	SPAWAR
5.4.4.1.9.6 Perform dynamic predictive planning	Conduct dynamic, predictive planning by gathering, storing and using knowledge of network assets/resources so as to optimize their utilization.	SPAWAR

Function	Definition	Definition Source
5.4.4.1.9.7 Perform network information assurance/security management	Provide defense in depth network systems security (NSS firewalls, Intrusion Detection Systems, anti-virus, etc.), Cryptographic System, Public Key Infrastructure (PKI), Security Engineering Services, Biometrics, IA Metrics, Certification and Accreditation, Allied/Coalition Operations, Intrusion Detection System, virus checking and other Authorization/control information for insuring proper access to the network and security of data/information.	SPAWAR
5.4.4.1.9.7.1 Authenticate user access	Assure identity of the person at the other end of the network.	SPAWAR
5.4.4.1.9.7.2 Ensure data/information confidentiality	Assure that only owners of a shared cryptological key can decrypt a computer file that has been encrypted with the shared cryptological key	SPAWAR
5.4.4.1.9.7.2.1 Decrypt information/data	Reverse the encryption algorithm and produce the original information/data.	SPAWAR
5.4.4.1.9.7.2.2 Encrypt information/data	Convert plain text, voice, or data into unintelligible form/ciphertext by means of a reversible mathematical computation.	SPAWAR
5.4.4.1.9.7.2.2.1 Perform bulk encryption	Encrypt the entire network to secure the information.	SPAWAR
5.4.4.1.9.7.2.2.2 Perform content-based encryption	Encrypt information objects at the host to secure the information.	SPAWAR
5.4.4.1.9.7.3 Ensure nonrepudiation	Provide mechanism to ensure that the data reached the intended recipient and was opened and protect against user denying they participated in a data exchange when in fact they did.	SPAWAR
5.4.4.1.9.7.4 Maintain data file integrity	Assure that a file was not changed or modified during processing and/or transit to the end user.	SPAWAR
5.4.4.1.9.7.5 Prevent opportunity to attack	Prevent/minimize opportunity to attack network. Immediately define, detect, and respond appropriately to anomalies/attacks/disruptions from external, internal, and natural threats.	SPAWAR
5.4.4.1.9.7.6 Provide defensive IW services	Ensure security of the network through the use of vulnerability assessments, intrusion detection, and virus checking at hosts, within local networks, and at network connection points.	SPAWAR
5.4.4.1.9.7.7 Provide multi-level communications security	Support access to information with varying security classifications based on clearance, authorization, and need-to-know/use.	SPAWAR
5.4.4.1.9.7.8 Translate languages	Provide language translation services to facilitate allied and coalition interpretation of information among participating units.	SPAWAR
5.4.4.1.9.8 Perform technical control of network	Locate, diagnose, and correct faults through remote testing and monitoring in order to minimize downtime and facilitate timely network restoration.	SPAWAR
5.4.4.1.9.9 Provide Network Manager Human Systems Integration	Initiate automatic assistance for network operator/manager in performing all network configuration/management functions.	SPAWAR
5.4.4.1.9.9.1 Provide feedback on user input and actions	Display confirmation of user input or actions to include visual aural and/or tactile feedback.	SPAWAR
5.4.4.1.9.9.2 Provide output/input information in user friendly format	Present network information to and accept information from humans using a combination of visual, tactile, and /or other unique sensory methods.	SPAWAR
5.4.4.1.10 Perform dynamic data transmission path selection	Choose the path with the best metric, based on cost, hop count or composite for sending data.	SPAWAR
5.4.4.1.10.1 Establish redundancy in the network to avoid single-point failures	Set up multiple connectivity paths for transferring data to mitigate the effects of equipment failure, imbalanced network loading, or susceptibility to threats to the network.	SPAWAR
5.4.4.1.10.2 Select transmission path for ensuring required quality of service (QoS).	Choose a transmission path that meets the required quality parameters (data rate, timeliness, priority, etc.) of a specific stream of data for purpose of load leveling of traffic over various communications paths.	SPAWAR
5.4.4.1.10.3 Negotiate services across networks	Negotiate and coordinate the setup of end-to-end QOS across multiple dissimilar networks.	SPAWAR
5.4.4.1.11 Provide network access scalability	Ensure network is accessible by a wide range and varying number of users without manual intervention.	SPAWAR
5.4.4.1.12 Provide network services scalability	Add and/or remove network services without manual intervention by network administrator.	SPAWAR
5.4.4.1.13 Synchronize network timing	Support synchronization of clock time among the system devices that have to interact across the network using the Network Time Protocol (NTP) and/or Coordinated Universal Time (UTC).	SPAWAR
5.4.4.1.14 Terminate network connection	Terminate an established connection that is no longer needed for passing data.	SPAWAR
5.4.5 Provide Networking Desktop Services	Ensure reliable end-to-end delivery of data including software addressing, routing and switching, and data flow control (Layers 3 and 4 of the OSI Reference Model).	Unknown
5.4.5.1 Provide Directory Services	Provide repositories for information about network-based entities, such as applications, files, printers, and people.	Unknown
5.4.5.2 Share Files and Printers	Provide access and security to share printer and file resources in a secure environment.	Unknown
5.4.5.3 Provide File Transfer	Provide facilities for FTP and other file transfer services	Unknown

Function	Definition	Definition Source
5.4.5.4 Provide Message Services	Provide message boards, chat, general purpose store-and-forward message switching system, instant mail, message broadcast.	Unknown
5.4.5.5 Monitor and Analyze Network Performance	Monitor and analyze real time network activity, condition and performance.	Unknown
5.4.5.6 Provide Remote Access	Provides for remote dial-in, wireless network account access.	Unknown
5.4.5.7 Design & Maintain Web Pages	Design and administer enterprise websites. Includes performance/activity monitoring and analysis. Website security administration.	Unknown
5.5 Provide Transport Services	Provide machine aid to all form of communications; includes the transfer, control, dissemination and exchange data and data products (information) between systems. Includes service, planning, management & support of communications.	Unknown
5.5.1 Comm Plan Execution	Establish communications systems/ networks in accordance with the Communications plan. Identify transport system availability, set priorities, and control the configuration and use of these systems.	SPAWAR
5.5.1.1 Control Use of Information Transfer System	Establish controls for transfer system including system access, configuration management, and priorities.	SPAWAR
5.5.1.2 Reconfigure Information Transfer Systems	System functions that configure transport systems for transmission of data/information. Configuration may be based on user defined defaults, availability, or suitability of transport systems for the specific data or information element.	SPAWAR
5.5.1.3 Identify Communication Assets	Insure all communications assets identified in the communications plan are located properly and available.	SPAWAR
5.5.2 Communications Control	This function shall: control communications equipment and systems and control the use of communication protocols to interface user services with physical communication systems	Unknown
5.5.2.1 Calculate Transmitter Performance	Determine system/ transmitter performance based on connectivity via wire, network, or direct connection, frequency, bandwidth, range, power, environment and usage requirements.	SPAWAR
5.5.2.2 Multiplex data for transmission	Permit two or more data sources to share a common transmission medium such that each data source has its own channel.	SPAWAR
5.5.2.2.1 Demultiplex data transmission	Decompose multiplexed data stream for processing on receiving terminal.	SPAWAR
5.5.2.3 External Communications Manager	External Comms Manager enables operators to configure, monitor, and control the communications networks. External Communications Manager accesses to the communications network is via functions that support interface control. The External Comms Manager also monitors the traffic on the communications network via functions that support network monitoring. The External Comms Manager builds and sends the track reporting rules to be used for track report filtering.	Unknown
5.5.2.4 Terminal Control	Terminal Control provides the direct interface to the External Comms network hardware and radio equipment and is responsible for all aspects of configuration, control and status. Terminal Control provides for power on, radio silence, and operation. Terminal Control functions handle the low-level communications required to connect the communication gear (cryptos, DTS, JTIDS, etc.) and status of the various communication gear is provided to functions that support interface control.	Unknown
5.5.2.5 Interface Control	Interface Control assimilates individual communication network statuses into a complete network status for forwarding to the CS External Communications Manager. Interface Control also breaks down the network configuration sent from the CS External Communications Manager into individual communication link configurations geared to each specific communication link.	Unknown
5.5.3 Conduct automated load balancing	Automatically control transmission of information across the RF communications systems based on utilization.	SPAWAR
5.5.4 Control operational mode	Maintain control of the operational mode of the information transport services for Normal, Battle short, and EMCON conditions.	SPAWAR
5.5.4.1 Control Battle Short operations	Functions that permit the "override" of a systems' built-in-test (BIT) functions that would normally result in system shut-down. For example, "Battle short" functions would be used to keep a system operating in an overheating situation if the tactical situation required the systems' products.	SPAWAR
5.5.4.2 Control EMCON operations	Monitor and control radiating systems' emissions. These functions may reside in a radiating system to respond to a cease emissions command, or reside in a system that monitors emissions to be radiated.	SPAWAR
5.5.4.3 Control normal operations	System functions that enable normal design operations of a system. Examples would include on-off, BIT commanded shut-down, tuning, output, etc.	SPAWAR
5.5.4.4 Perform diagnostic testing	Conduct diagnostic testing of hardware, software, presets, and settings upon restoration of power after an unexpected loss.	SPAWAR
5.5.4.5 Remotely control operations	Perform automatic control of transport components regardless of location within a platform/facility.	SPAWAR

Function	Definition	Definition Source
5.5.5 Interface with Local/Wide Area Networks	Enable messages in the form of voice, video, and data to be distributed to and received from terminals/workstations in various shipboard/shore facility sites.	SPAWAR
5.5.6 Maintain appropriate level of security during data transmission	Ensure information security measures are implemented, using encryption/decryption devices, keys, etc. to ensure protection of all traffic at the appropriate level.	SPAWAR
5.5.7 Maintain required Quality of Service (QoS)	Provide the ability to guarantee the delivery of time-sensitive data, control the bandwidth, set priorities for specific network traffic, and provide an appropriate level of security.	SPAWAR
5.5.8 Modulate digital data	Convert a series of binary voltage pulses into an analog signal by a modulating carrier frequency so that it can be transmitted on a telecommunications network.	SPAWAR
5.5.9 Demodulate an analog signal	Recover a received analog signal impressed on a carrier frequency and convert into digital data for dissemination in a telecommunications network.	SPAWAR
5.5.10 Prepare Information for Transmission	Format information properly for the network/ communications system requirements.	SPAWAR
5.5.11 Protect against effects of Electromagnetic Pulse (EMP) and directed	Employ protective measures to ensure survivability of hardware and software in the event of EMP or directed energy attack.	SPAWAR
5.5.12 Retransmit/cross-band information	Resend or transfer information from one frequency band/waveform to another.	SPAWAR
5.5.13 Scan radio frequencies	Search the radio frequency spectrum based on operator input or presets.	SPAWAR
5.5.14 Transfer information over multiple channels simultaneously	Transmit data in either full-duplex (FDX) or half-duplex (HDX) mode. FDX is the capability for simultaneous transmission in two directions so that devices can send and receive data at the same time. HDX is the ability to transmit on the same channel in two directions, but only one direction at a time.	SPAWAR
5.5.15 Transmit in variety of waveforms	Provide functionality to select waveform (HR, HJG, SATCOM, Wideband Networking Waveform (WNW), etc.) for enhanced force security and power projection across variety of networks.	SPAWAR
5.5.16 Transmit/receive Information	Transmit data/information through wireless, networked, or directly connected means.	SPAWAR
5.5.16.1 Transmit/receive information (voice/data)	Conduct communications via satellite between mobile units and shore sites worldwide. Provide survivable, jam resistant, low probability of intercept communications for secure voice, teleprinter, and data circuits.	RDA CHENG
5.5.16.1.1 Ensure low probability of intercept	Reduce the intercept range with VHF communications.	Unknown
5.5.16.1.2 Extend transmission range beyond the line of sight	Employ airborne transmission relay functions to extend the range of VHF transmissions.	SPAWAR
5.5.16.1.3 Prevent jamming of VHF transmissions	Use anti-jamming techniques such as independent simultaneous continuous wave, pulse outputs, frequency hopping, etc.	SPAWAR
5.5.17 Access Control	Limit access to information by authorized users only	SIAP
5.5.18 Role / Privilege Management	Manage information access according to user profiles (e.g. Multi-Level Security)	SIAP
5.5.19 User Management	Track users, their profiles, system usage, and data usage history to manage access	SIAP
5.5.20 Data Verification	Validate information/data integrity	SIAP
5.6 Storage Management	Coordinate the retention of data for subsequent use	SIAP
5.6.1 Backup	Store duplicative data	SIAP
5.6.2 Data Archiving	Store data for future use	SIAP
5.6.3 Enterprise storage resource management	Maintain data storage processes	SIAP
5.7 Manage Databases	Provide the hardware and software functions required to maintain databases.	SPAWAR
5.7.1 Archive Data	Periodically archive data based on usage access or other system requirements.	SPAWAR
5.7.2 Conduct Data Storage/Retrieval/Updating	Store data in a single, discrete source to facilitate retrieval, update, and storage of new data.	SPAWAR
5.7.3 Conduct Database Queries	Perform data base queries to support the retrieval of needed data.	SPAWAR
5.7.4 Delete data	Provide capability to remove/discard stored data as required.	SPAWAR
5.7.5 Encyclopedic Database Management	Maintain an encyclopedic database.	SPAWAR
5.7.6 Maintain data integrity	Ensure data storage process does not alter stored data in a manner that compromises the integrity of the data.	SPAWAR
5.7.7 Perform Data Correlation	Use defined rule sets/criteria to identify and correlate data.	SPAWAR
5.7.8 Protect data	Store data in a manner that protects it from loss due to fire, water damage, information operation threats, and Electromagnetic Pulse (EMP).	SPAWAR

<b>Function</b>	<b>Definition</b>	<b>Definition Source</b>
5.7.9 Provide Data Fusion Services	Use defined rule sets/criteria to fuse data from different sources as a single entity while maintaining individual data tags.	SPAWAR
5.7.10 Provide visibility of data storage infrastructure	Display status of data storage infrastructure in order to efficiently manage storage capacity.	SPAWAR
5.7.11 Route Information	Maintain a database of route history for all mission planning and platform activities.	SPAWAR