



JOINT REQUIREMENTS  
OVERSIGHT COUNCIL

THE JOINT STAFF  
WASHINGTON, D.C. 20318-8000

JROCM 173-07  
16 July 2007

MEMORANDUM FOR DISTRIBUTION

Subject: Net-Enabled Command Capability Increment One Capability  
Development Document

1. The Joint Requirements Oversight Council (JROC) approves the Net-Enabled Command Capability (NECC) Increment **One Capability** Development Document and Extensions, and validates the **enclosed** key performance parameters and key system attributes. The JROC will **maintain** approval authority for all key performance parameter changes, **delegates** capability development document approval authority oversight for **changes to key system attributes** to the Joint Capabilities Board, and **delegates** capability development document approval authority for all other non-key performance parameter/non-key system attribute changes to USJFCOM via the **Joint Combat Capability Developer** organization as outlined in the capability development document. Capability developers will use the NECC Capability Development Document and Extensions as the initial statement of validated capability needs for all phases of development. This program is assigned the **Joint Potential Designator** of "JROC Interest."
2. USJFCOM, working in concert with the Services and appropriate agencies, will determine program funding requirements for POM 2010 and beyond.
3. Should the Defense Information Systems Agency encounter costs exceeding ten percent of the approved acquisition program baseline or 25 percent of the original program baseline (Program Acquisition Unit Cost/Acquisition Procurement Unit Cost), they shall **return** to the JROC prior to reprogramming or budgeting additional funding into the program.
4. The JROC recognizes the importance of the NECC program and requests USJFCOM return to the JROC to provide annual program updates.

  
E. P. GIAMBASTIANI  
Admiral, US Navy  
Vice Chairman  
of the Joint Chiefs of Staff

Enclosure

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**Net-Enabled Command Capability (NECC)  
Capability Development Document (CDD)  
Linked Extension D – Mission Capability Package  
(MCP) List and Description**

**Increment: I**

7 June 2007

This document has been approved by J8 for release to  
Australia, Canada, and Great Britain

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Further requests for this document should be submitted to:

**Joint Combat Capability Developer (J88)**  
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## Extension D - MCP List and Description

### Mission Capability Packages

NECC MCPs are DOTMLPF capabilities binned together to form readily identifiable capability sets to facilitate support of the warfighter via evolutionary acquisition and incremental fielding of capability improvement(s). Each MCP is supported by Service/Agency-provided software applications developed and organized to meet joint capability mission area and warfare domain-specific execution requirements. The currently identified and supported NECC MCPs include: Force Projection, Force Readiness, Intelligence, Situational Awareness, Force Employment - Air/Space Operations, Force Employment – Land Operations, Force Employment – Maritime/Littoral Operations, and Force Protection. Use of MCPs enable focused identification of cross cutting vertical/horizontal information exchange requirements between the NMCS, Combatant Commands, JTF, JTF components, IC components, HS/HD components, DOD Agencies, non-DOD Agencies, and multinational components, as required. The capability-based needs measures will serve as a basis for refinement in the Test and Evaluation Master Plan (TEMP) to derive measurable metrics and measures of effectiveness (MOEs). MCP descriptions are keyed to the comparable SV-4 hierarchical/(functional decomposition) diagrams (Page A-61-79). Note: Cross Functional Capabilities cut across all MCPs and are described throughout the document.

To ensure success of NECC Mission Capabilities Packages, the following THRESHOLD global metrics for all source data access must be met:

- Planning Phase: data age  $\leq$  5 days old
- Execution Phase: data age  $\leq$  1 day old
- Deployment/Employment: data age  $\leq$  2 hours old
- Availability: >1000 simultaneous, distributed users
- Integration/Synchronization: 100% throughout NECC
- User Configurable: Both view and content (query, grouping, parsing, etc.)

The global metrics were based on the Adaptive Planning Study recommendations approved in a JCS tank on 22 March 2004 and included in a subsequent CPG briefed to and approved by the Secretary of Defense (SECDEF).

Throughout this document “Deliberate Planning” has been replaced with “Contingency Planning” in order to align with Adaptive Planning terminology. In the past “deliberate planning” was a rigid drawn out process conducted over a 24 to 36 month period. The intent of “adaptive planning” is to rapidly develop plans, with multiple options, modify them quickly based on changing strategic and operational environment, and execute when needed. Adaptive planning also addresses key crisis action shortfalls, namely the inability to rapidly conduct force generation, force sustainment, logistics, and transportation planning in support of short notice/no notice operations.

Increment I capabilities are indicated by a yellow highlighted (Increment I) identifier. Those GCCS Family of Systems (FoS) applications supporting the envisioned NECC concepts will evolve from their current state of joint and Service variants into a single capabilities-based, NECC architecture. Transformation will be successful when the Joint and Service systems have moved to NECC with no loss of current required capabilities and performance. During the transition phase, GCCS FoS applications not conforming to NECC concepts or architectures, but are required near term to ensure no loss in operational capability shall be maintained.

Unless otherwise stated, all subsections will require integration of GES-based capabilities into the respective MCP to meet minimum THRESHOLD requirements.

## **1. Force Projection**

Unless otherwise stated, all subsections will require integration of GES-based capability into MCP to support development and maintenance cycle for OPORD, OPLAN, and associated products (e.g. TPFDD, movement schedules, sustainment/support needs, force readiness assessments, annexes, and related orders) to meet the minimum THRESHOLD capabilities. The mission capabilities must also support pre-positioning and repositioning units and stores, allocating and reallocating units to mission, managing OPSTEMPO and PERSTEMPO, and managing complex and routine overhaul maintenance periods. NECC shall provide a capability to perform employment scheduling of assets in near-real time via an entirely web-based interface. This capability includes visual scheduling, automated workflow, e-mail notification, and contingency planning. The capability supports optimizing unit operational cycle schedules, and integrating short-term, mid-term, and long-term planning, required global force presence, best-unit fit, services, deployment, exercise, training cycle, and modernization scheduling.

### **1.1 Conduct Planning.**

NECC shall provide capabilities to collaboratively access, graphically display, develop, analyze, model/simulate, modify, coordinate, validate, disseminate, archive, and manage Operation Orders (OPORD), Operation Plans (OPLAN), and associated products (e.g. TPFDD, movement schedules, sustainment/support needs, force readiness assessments, annexes, and related orders). Within the context of adaptive planning, distributive collaboration will be pushed down to the lowest possible level, strategic to tactical; cross service, cross component, cross Combatant Commander (CCDR), and also at the application level.

1.1.1 Checklist. (Increment I) NECC shall provide capabilities to access, display, develop, modify, and coordinate checklists of actions required from strategic national level down to joint force and Service/functional component levels.

1.1.2 Shared Data. (Increment I) NECC shall provide capabilities to: access, display, aggregate, synchronize, validate, analyze, and archive shared planning data (e.g., JOPES, GTN). NECC shall provide the capability to drill down to unit (mission), Service, transportation data, and other applicable planning data.

1.1.3 Workflow. (Increment I) NECC shall provide capabilities to access, display, develop, modify, and coordinate workflow processes (e.g. pre-formatted OPLAN and OPORD templates, user-defined) and interactive forms to guide the development of crisis

action/adaptive campaign plans from strategic and national level down to joint force and Service/functional component levels. It shall also support process integration by imbedding status, coordination, comment information, and input requirements specific to key functional offices related to the mission/operation.

1.1.4 Orders. (Increment I) NECC shall provide capabilities to access, display, generate, modify, and coordinate planning/execution orders. NECC shall provide capabilities to access, display, develop, modify, and coordinate a virtual situation book to organize, correlate, sort, store orders/alerts, and present information relative to a crisis action or adaptive campaign plan.

1.1.5 COA Development and Selection. (Increment I) NECC shall provide at a minimum, the capability to conduct rapid force generation and management, prioritize forces to support employment concept within strategic and theater transportation constraints, provide logistics and force sustainment estimates, provide strategic and theater transportation planning support, force closure estimates, and overall concept assessment (wargaming) capability.

1.1.6 Command Relationships. (Increment I) NECC shall provide the capability to link joint C2 command relationships (OPLAN/OPORD Annex J) to the transportation planning data.

1.1.7 Force/Logistics Selection. (Increment I) NECC shall provide capabilities to access, display, generate, analyze, coordinate, refine, validate, and archive force and logistic selections required to meet commanders' needs. NECC shall provide capabilities to perform contingency sourcing, i.e., identifying backfill/substitute forces for plans when forces previously identified are not operationally available on a specified date. NECC shall provide total force visibility to identify potential combat, combat support, and combat service support units (active, national guard, and reserve) to support COA alternatives based on readiness, availability, and time required to deploy and to perform contingency sourcing. NECC shall provide the capability to support dynamic and changing deployment packages in order to match validated concepts of operations (CONOPS). The logistics portion of the COP shall include supply, maintenance, transportation, personnel, medical, personnel recovery, noncombatant evacuation, reconstitution, politico-military support, finance, religious support, legal services, public affairs, and field services.

1.1.8 CONOPS. NECC shall provide capabilities to develop, access, extract, and insert CONOPS data into OPORD/OPLAN elements. NECC shall provide the capability to review/adjust plan elements.

1.1.9 Initial Mobilization. NECC shall provide capabilities to access, display, analyze, process, coordinate, and archive information to support: initial mobilization of reserve forces and the marshaling of logistic resources; identification of readiness status of deploying forces; management of critical logistic resources; incorporation of host-nation support; and identification of acquisition and cross-servicing agreements.

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1.1.10 CESP. NECC shall provide capabilities to access, display, develop, process, coordinate, and archive the Civil Engineering Support Plan (CESP) for an OPORD and OPLAN.

1.1.11 Logistics Needs. NECC shall provide capabilities to access, display, develop, process, coordinate, and archive logistic needs in selected functional areas (e.g., civil engineering, non-nuclear ammunition, petroleum, oil, and lubricants (POL), medical, and other classes).

1.1.12 Crisis Management. (Increment I) NECC shall provide capabilities to access, display, develop, process, coordinate, and archive crisis planning management information, including force, logistics, and movement data.

1.1.13 Force Conversion. NECC shall provide capabilities to access, display, analyze, process, coordinate, and archive data needs for force conversion, mobilization, deployment, and sustainment operations.

1.1.14 Force and Logistics Needs. (Increment I) NECC shall provide capabilities to: access; display; analyze; process; model/simulate; and archive OPORD/OPLAN force, logistic, and transportation needs; including strategic movement needs; COA alternatives for adequacy; feasibility acceptability; and consistency with joint doctrine.

1.1.15 Arrival of Forces. NECC shall provide capabilities to access, graphically display, monitor, and coordinate arrival of forces (e.g., whole or partial units, selected personnel) in theater or a Joint Operations Area (JOA) by Unit Type Code (UTC), Unit Identification Code (UIC), Unit Line Number (ULN), Transportation Control Numbers (TCN), and unit type (with associated unit sustainment) for each C-day of the plan to provide force closure assessment. NECC shall provide capabilities to access, graphically display, monitor, and coordinate combat power and combat power ratio of forces (includes RED forces) arriving in theater. NECC shall provide capabilities to access, display, develop, coordinate, modify, and disseminate current Force Closure Reporting (to include TPFDD) based on arrival of forces in theater.

1.1.16 Unit Deployment. (Increment I) NECC shall provide capabilities to access, graphically display, monitor, and coordinate planned, scheduled, and actual deployment of units into a theater of operations or a JOA based on a TPFDD.

1.1.17 Movement. NECC shall provide capabilities to access, display, monitor, assess, and coordinate the efforts to move planned forces and logistics needs to meet required delivery dates.

1.1.18 Notification. NECC shall provide capabilities to notify force movement planners of orders/alerts and senior leadership decisions and to display authorized changes to orders/alerts with status of required actions. NECC shall provide capabilities to cross-reference and cross-link orders to provide a complete picture of the guidance in a series of orders.

## 1.2 Conduct TPFDD Development/Maintenance.

NECC shall provide capabilities to collaboratively access, graphically display, develop, analyze, model/simulate, modify, coordinate, validate, disseminate, archive, and manage the TPFDD.

1.2.1 Deployment Data. (Increment I) NECC shall provide capabilities to provide information for the coordination of deployment routing, over-flight routes, landing rights, and refueling routes, needs, timing, and schedules. NECC shall provide capabilities to access, display, and analyze user-defined or predefined infrastructure information on facilities/terminals supporting multi-modal transportation (e.g., seaports, airfields, terminals, railway, barge, surface transportation).

1.2.2 Transportation Needs. (Increment I) NECC shall provide capabilities to access, display, generate, analyze, process, and coordinate transportation needs (e.g., schedules, flow paths, channel traffic) to meet force, non-unit, and logistic movement/sustainment needs from origin to destination. NECC shall provide capability to generate Personnel Increment Numbers (PIN). NECC shall provide the capability to incorporate PINs into TPFDD movement needs as the basis for lift analysis and allocations.

1.2.3 Force Modules. NECC shall provide capabilities to access, display, create, modify, and store queries defining force modules. NECC shall provide capabilities to create and maintain hierarchical relationships between force modules and to lock force modules preventing modifications or deletions of record level contents.

1.2.4 Cross Linkage. NECC shall provide capabilities to cross-reference and cross-link force movement needs (e.g. link UTCs and ULNs to forces identified in deployment orders). NECC shall provide the capability to correlate ULNs to Transportation Control Numbers (TCN) and transportation carriers.

1.2.5 Continuous Asset Visibility. (Increment I) NECC shall provide the capability to track location and operational status of all forces (to include personnel and equipment designated to support the plan) and to access, graphically display, coordinate, and monitor:

- Location/operational status of all assets (i.e., personnel/equipment down to the item/personnel identification levels) from origin to destination via single/multiple carriers;
- Planned, scheduled, and actual movement of assets;
- Location/operational status of air, land and sea movements.

1.2.6 In-Transit Visibility. (Increment I) NECC shall provide capability to seamlessly interface the GTN and JOPES databases in support of cargo and personnel movements to include organic and non-common (e.g., commercial, multinational) user transportation provided by USTRANSCOM and other sources. Visibility of transportation missions and assets and the location of key replacement personnel, supplies, and equipment in transit including the time-definite, ground, sea, rail, or air, delivery of material, equipment, units, personnel, and services from the sustaining base to installation to intermediate sustainment bases to the area of operations.

1.2.7 Sustainment Estimates. NECC shall provide capabilities to access, graphically display, generate, process, and coordinate sustainment estimates based on origin to destination movement.

1.2.8 Transportation Feasibility. NECC shall provide capabilities to access, graphically display, analyze and coordinate transportation feasibility to support force and logistics movement needs executing simultaneously from multiple OPORDs and OPLANs. NECC shall provide the capability to seamlessly interface the Joint Flow & Analysis System for Transportation (JFAST) and Analysis of Mobility Platform (AMP) in support of feasibility determination as provided by USTRANSCOM.

1.2.9 Transportation Visibility. (Increment I) NECC shall provide capabilities for operational users to access, display, analyze, coordinate, and disseminate TPFDD scheduling and movement needs. NECC shall provide the capability to seamlessly interface with transportation feasibility capabilities in exercise support and planning as well as conducting Crisis Action planning.

1.2.10 Automatic Notification. (Increment I) NECC shall provide capabilities to automatically notify planners and force providers of plan changes such as requirements, dual tasking and sourcing solutions when changes are approved.

### **1.3 Provide Total Force Visibility of Conventional Force Management Information.**

NECC shall provide capabilities necessary to achieve a current, unobstructed, worldwide view of force / capability inventory and force / capability commitment, availability and readiness; and the ability to readily discern changes in status. NECC shall provide capabilities to access and display comprehensive force structure inventory; identify forces with a specific requested capability; display force readiness in a common language; ensure compliance of sourcing solutions IAW Global Force Management (GFM) strategic guidance; determine force availability; display force location; identify force apportionment; display force location in a COP during deployment and re-deployment and save work in progress. The implicit concept of operations for this set of capabilities is to identify, from a comprehensive DOD force structure inventory, qualifying units, etc., based on identifier or capability; eliminate units based on current or projected readiness; eliminate units based on GFM strategic guidance; eliminate units based on availability; eliminate units based on location; and eliminate units based on commitment to plans. The units remaining from the initial set are candidates for a required force or capability. NECC shall provide capabilities to access and display information for all of the following categories, to the extent permitted by security considerations, in a cross-domain manner as follows: in a given classification security domain all the information in that domain and lower domains plus all information from higher classification domains at or below the level of the given domain shall be available. NECC shall provide capabilities to derive this information from authoritative sources in such a fashion as to allow for changes in or at the source.

1.3.1 Force Structure. (Increment I) NECC shall provide capabilities to access and display the DOD force/capability inventory required to establish a units/“deployable entities” baseline to draw from to meet a requested force/capability. NECC shall provide

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capabilities to access comprehensive Joint and Service Force Structure inventory data down to the smallest "deployable entity" commonly used to meet Regional Combatant Commander (RCC) requirements, e.g., teams, detachments, platoons, squads, troops, companies, elements, possibly down to the MOS/individual level, and shall provide capabilities to include ad hoc deployable entities which are task organized to meet emergent mission requirements. NECC shall provide capabilities to access and display force structure information for the following:

- US Army Active Component
- US Army Reserve Component
- US Army National Guard Component
- US Navy Active Component
- US Navy Reserve Component
- US Marine Corps Active Component
- US Marine Corps Reserve Component
- US Air Force Active Component
- US Air Force Reserve Component
- Air National Guard
- US Coast Guard Active Component
- US Coast Guard Reserve Component
- Agencies, to include at least the following combat support agencies: Defense Information Systems Agency (DISA), Defense Threat Reduction Agency (DTRA), Defense Contract Management Agency (DCMA), Defense Intelligence Agency (DIA), Defense Logistics Agency (DLA), National Geospatial-Intelligence Agency (NGA) and National Security Agency (NSA).

NECC shall provide capabilities to display and manipulate inventory data in graphical and textual formats and to export inventory data returned by queries or other means in word processing, spreadsheet and presentation format and in device and resolution independent format.

- Ability to identify and track all DOD force structure elements (down to the smallest "deployable entities" level) as defined above.
  - Required (THRESHOLD)                      Required (OBJECTIVE)
- Ability to identify and track all ad hoc "deployable entities" which are task organized to meet emergent mission requirements
  - Not required (THRESHOLD)                      Required (OBJECTIVE)
- Accuracy of force structure inventory query results as measured against Service or agency authoritative sources (TBD)

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Ninety (90)% (THRESHOLD)      One Hundred (100)% (OBJECTIVE)

- Delay between Service or Agency update to authoritative data sources (TBD) and inclusion in queriable force structure inventory

Not more than twenty-four (24) hours (THRESHOLD)

No delay (Near Real Time inclusion) (OBJECTIVE )

1.3.2 Force Capabilities Identifier. (Increment I) NECC shall provide capabilities to generate a preliminary list of candidate units/“deployable entities” to meet the requested force/capability. This list shall represent the entire joint sourcing solution set for meeting each RCC requirement. NECC shall provide capabilities to identify units/“deployable entities of units” (by name, UIC or other designator) that equate to a requested force or capability (Request for Forces [RFF]/Request for Capability [RFC] for contingency operations) and rotational requirements (for ongoing operations) and requirements to source contingency plan (OPLAN/CONPLAN/FUNCPLAN) TPFDDs. NECC shall provide the capabilities to include and identify ad hoc "deployable entities" which are task organized to meet emergent mission requirements in addition to other units/"deployable entities of units". NECC shall provide capabilities to display and manipulate qualifying units/"deployable entities of units" in graphical and textual formats and to export qualifying units/"deployable entities of units" returned by queries or other means in word processing, spreadsheet and presentation format and in device and resolution independent format.

- Ability to identify all DOD force structure elements (down to the smallest “deployable entities” level) as defined above.

Required (THRESHOLD)      Required (OBJECTIVE)

- Ability to identify all ad hoc “deployable entities” which are task organized to meet emergent mission requirements

Not required (THRESHOLD)      Required (OBJECTIVE)

- Accuracy of force structure inventory query by unit identification or capability as measured against Service or Agency authoritative sources (TBD)

- 

Ninety (90)% (THRESHOLD)      One Hundred (100)% (OBJECTIVE)

- Retrieve/input query results and export/import data into application in compliance with joint system of record (GCCS-J, others) application standards

Required (THRESHOLD)      Required (OBJECTIVE)

1.3.3 Force Readiness. (Increment I) NECC shall provide capabilities to access and display measured readiness for candidate units/“deployable entities” to meet a requested force/capability. Readiness shall include traditional Overall, Personnel, Training, Equipment and Supplies (OPTES) readiness data as well as mission unique data requirements for units/“deployable entities” to meet each RCC requirement. NECC shall provide the capabilities to access and display measured current and projected OPTES

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readiness at the appropriate level of reporting for the required capability/force across the joint sourcing solution set (down to the smallest "deployable entity" commonly used to meet RCC requirements, e.g., teams, detachments, platoons, squads, troops, companies, elements, possibly down to the individual) in common language/standards of measurement. NECC shall provide the capabilities to access and display current and projected OPTES readiness data and mission unique data bearing on readiness. NECC shall provide capabilities to reflect changes in readiness within one (1) day of submission to the appropriate readiness application/system. NECC shall provide capabilities to access and display the above readiness information for ad hoc "deployable entities" which are task organized to meet emergent mission requirements. NECC shall provide capabilities to display and manipulate readiness data in graphical and textual formats and to export readiness data returned by queries or other means in word processing, spreadsheet and presentation format and in device and resolution independent format..

- Inclusion of current readiness levels as reported by the "unit" commander within one (1) day of status change against all DOD force structure elements (down to the smallest "deployable entities" level)

Required (THRESHOLD)

Required (OBJECTIVE)

- Inclusion of current readiness levels as reported by the "unit" commander within one (1) day of status change against all ad hoc "deployable entities" which are task organized to meet emergent mission requirements

Not required (THRESHOLD)

Required (OBJECTIVE)

- Accuracy of readiness information query results as measured against Service or Agency authoritative sources (TBD)

Ninety (90)% (THRESHOLD)

One Hundred (100)% (OBJECTIVE)

1.3.4 GFM Strategic Guidance. (Increment I) NECC shall provide capabilities to access, display and/or apply the strategic guidance required to prioritize/eliminate candidate units/"deployable entities" in order to source a requested force/capability. NECC shall provide capabilities to access strategic guidance which is dynamic and updated by OSD, Joint Staff (JS), and Services (as required) to ensure visibility of recognized red-lines when recommending sourcing solutions to meet an RCC requirement. NECC shall provide the capabilities to identify red-line violations/considerations for candidate units/"deployable entities" IAW accepted GFM Strategic Guidance. NECC shall provide capabilities to include the following red-line considerations (at a minimum):

- Mobilization history (Mobilizations, Demobilizations, Extensions, Re-mob, Mob Authority),
- Dwell,
- Transformation,
- Ops/Pers Tempo,
- Readiness (minimum standards for deployment),

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- Active Component/Reserve Component/National Guard specific guidance and
- Any others identified by OSD, Joint Staff or Services in the future.

NECC shall provide capabilities to apply red-line considerations to ad hoc "deployable entities" which are task organized to meet emergent mission requirements in addition to other units/"deployable entities of units". NECC shall provide capabilities to display and manipulate violations in graphical and textual formats and to export violations returned by queries or other means in word processing, spreadsheet and presentation format and in device and resolution independent format.

- Inclusion of all strategic guidance by OSD, Joint Staff and Services required to prioritize all DOD force structure elements (down to the smallest "deployable entities" as defined above)

Required (THRESHOLD)

Required (OBJECTIVE)

- Inclusion of strategic guidance by OSD, Joint Staff and Services required to prioritize all ad hoc "deployable entities" which are task organized to meet emergent mission requirements

Not required (THRESHOLD)

Required (OBJECTIVE)

1.3.5 Force Availability. (Increment I) NECC shall provide capabilities to generate and display an overview of units/"deployable entities" employment over time in order to prioritize candidate units/"deployable entities" ability to satisfy the requested force/capability. NECC shall provide capabilities to access dynamic Force Availability data and to support updates (as required) by OSD, JS, CCDRs and Services to ensure Joint Force Provider (JFP) visibility of recognized red-lines/considerations when recommending sourcing solutions to meet an RCC requirement. NECC shall provide capabilities to generate and display a comprehensive and tailorable (by filter) overview (current, historic and future) of force availability for each of the candidate units/"deployable entities" identified. NECC shall provide capabilities to access and display at least the following:

- Deployments (operational, exercise, and experiments)/redeployments,
- Prepare to deploy orders (PTDO)s,
- Mobilization/Demobilization,
- Reconstitution/ Reset,
- Maintenance (including C-5 designations),
- Transformation,
- JSCP apportionment,
- COCOM assignment,
- Operational/Administrative Control relationships,

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- Planned rotations (Air and Space Expeditionary Force Presence Policy, Joint Presence Policy, Global Naval Force Presence Policy, Nuclear Attack Submarine global allocation, ISR allocation, and others),
- Service identified considerations (“wildcard” entry for Service comments),
- Schools/training
- Permanent Change of Stationing
- Joint Duty (Staff) assignments
- Service HQ assignments

NECC shall provide capabilities to filter Force Structure using any data element in Force Structure Database. NECC shall provide capabilities to display and manipulate availability information in graphical and textual formats and to export availability information returned by queries or other means in word processing, spreadsheet and presentation format and in device and resolution independent format.

- Historical (backward) time span of availability information for all DOD force structure elements (down to the smallest “deployable entities” level)
  - Six (6) years (THRESHOLD)          Six (6) years (OBJECTIVE)
- Future (forward) time span of availability information for all DOD force structure elements (down to the smallest “deployable entities” level)
  - Three (3) years (THRESHOLD)          Six (6) years (OBJECTIVE)
- Accuracy of availability information query results as measured against Service or Agency authoritative sources (TBD)
  - Ninety (90)% (THRESHOLD)          One Hundred (100)% (OBJECTIVE)

NECC shall provide capabilities to generate, display, modify, and approve employment schedules in a web based environment. NECC shall support the automatic routing and notification of changes to the employment schedule via the units hierarchical chain of command. NECC shall provide capabilities to generate, display, modify, query and report on employment scheduling planning factors such as Operational Tempo, turn-around ratio, and fuel/resource constraints.”

1.3.6 Force Location. (Increment I) NECC shall provide capabilities to access and display information required to prioritize/eliminate candidate units/“deployable entities” to meet the requested force/capability and to track units/ “deployable entities throughout the pre-deployment (mobilization if required), deployment, redeployment and reconstitution cycle. Location information may be determining factor in transportation analysis in selecting one candidate over another or be used to confirm previous deployments/force availability considerations (e.g. Beach Operations Groups for individual candidates (i.e. “who can get there first?”). NECC shall provide capabilities to access and display integrated location information for each of the candidate units/“deployable entities” identified. NECC shall provide capabilities to display

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location data (historic, current, and future) which includes CONUS (major city/state) and Intra- /Inter-Theater (major city/nation) movements for each of the candidate units/“deployable entities” to include ad hoc "deployable entities" which are task organized to meet emergent mission requirements.

NECC shall provide capabilities to consult authoritative location data sources in priority order until location information is found. NECC shall provide capabilities to access and display location information for sub-components of "deployable entities". NECC shall provide capabilities to access and display ad hoc "deployable entities" which are task organized to meet emergent mission requirements. NECC shall provide capabilities to display and manipulate location information in graphical and textual formats and to export location information returned by queries or other means in word processing, spreadsheet and presentation format and in device and resolution independent format.

- Historical (backward) time span of location information for all DOD force structure elements (down to the smallest “deployable entities” level)  
Six (6) years (THRESHOLD)                  Six (6) years (OBJECTIVE)
- Future (forward) time span of location information for all DOD force structure elements (down to the smallest “deployable entities” level)  
Three (3) years (THRESHOLD)                  Three (3) years (OBJECTIVE)
- Historic, current and future force locations for ad hoc force structure elements as they are identified  
Not required (THRESHOLD)                  Required (OBJECTIVE)
- Accuracy of location information query results as measured against Service or Agency authoritative sources (TBD)  
Ninety (90)% (THRESHOLD)                  One Hundred (100)% (OBJECTIVE)

1.3.7 Force Apportionment. (Increment I) NECC shall provide capabilities to identify units/“deployable entities” aligned to a given CCDR plan and their readiness/status/availability to meet requirements. In addition, NECC shall provide capabilities to require JFP to identify a substitute force/capability candidate if the apportioned unit/“deployable entity” is selected by JFP to meet other requirements or is otherwise engaged. NECC shall provide capabilities to identify units to fill TPFDD plan requirements, flag dual/multiple tasking (identify conflicts) and find substitutes when conflicts exist. NECC shall provide capabilities to identify units/“deployable entities of units” (by name, UIC or other designator) apportionment to CCDR plan requirements (OPLAN, CONPLAN, FUNCPLAN). NECC shall provide capabilities to display and manipulate inventory data in graphical and textual formats and to export inventory data returned by queries or other means in word processing, spreadsheet and presentation format and in device and resolution independent format .

- Be able to accurately track and report on the current apportionment process  
Required (THRESHOLD)                  Required (OBJECTIVE)

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- Accuracy of force apportionment information as measured against Joint authoritative sources (TBD)

Ninety (90)% (THRESHOLD)      One Hundred (100)% (OBJECTIVE)

1.3.8 Common Operational Picture (COP). (Increment I) NECC shall provide capabilities to generate a COP, or provide information to an existing COP, that includes on demand and routine reporting capability to support the JFP requirement to supervise deployment of forces. NECC shall provide capabilities to produce an integrated common operating picture that has tailorable, exportable graphics and reports. NECC shall provide capabilities to incorporate the track position and ID information of RED/BLUE/GRAY objects reported via the Common Tactical Picture and fuse this information with multiple intelligence data sources. NECC shall provide capabilities to produce a COP with display features (map, etc.) which shall be tailorable to display ad hoc and routine queries for requested force information but at a minimum allow the JFP to display/obtain information on the status and location of deploying, deployed and redeploying forces. NECC shall provide capabilities to support a COP reporting module that shall provide user defined and standard reports in both textual and graphical presentations. NECC shall provide capabilities to export routine (saved) reports with text and graphic contents. NECC shall provide capabilities to support routine (saved) queries. NECC shall provide capabilities to export COP information returned by queries or other means in word processing, spreadsheet and presentation format and in device and resolution independent format. NECC shall provide the capability to develop and assess the performance of theater architectures' ability to meet the CDR's information exchange requirements (IERs) for a common tactical picture.

- Accuracy of information accessed and displayed in the COP as measured against Service and Agency authoritative data sources (TBD)

Ninety (90)% (THRESHOLD)      One Hundred (100)% (OBJECTIVE)

1.3.9 Works-in-Progress. (Increment I) NECC shall provide capabilities to: save work-in-progress (working set of forces being considered for a complete or partial RFF/RFC); load saved work-in-progress and update qualifications of forces (readiness, etc.); identify saved works-in-progress associated with a complete or partial RFF/RFC; and transfer a saved work-in-progress to another analyst at the JFP location. NECC shall provide capabilities to save work-in-progress at end of day or in order to work another RFF/RFC or open previously saved work-in-progress and continue working. NECC shall provide capabilities to, periodically, automatically save a working set of forces being considered for a complete or partial RFF/RFC. NECC shall provide capabilities to archive all RFFs/RFCs and sourcing solutions. NECC shall provide capabilities to restrict access (read only/update) to saved works-in-progress by analyst or group.

- Time to save work-in-progress

Fifteen (15) sec. (THRESHOLD)      Five (5) sec. (OBJECTIVE)

## 2. Force Readiness.

Unless otherwise stated, all subsections will require integration of GES-based capabilities into MCP to support development and maintenance cycles for OPORD, OPLAN, and associated products to include the TPFDD, movement schedules, sustainment/support needs, force readiness assessments, annexes, and related orders to meet minimum THRESHOLD capabilities.

### 2.1 Readiness Oversight.

NECC shall provide capabilities to access, display, analyze, model/simulate, track, and coordinate readiness oversight of registered and measured US military units and selected DOD Agencies' current and historical ability to undertake assigned wartime and current missions (to include the ability to survive and fight in a chemical-biological contaminated environment) at selected points in time based on levels of resources/training and commanders' objective/subjective assessments.

#### Crisis Action Planning and Execution (after release of warning order)

- Support development and maintenance cycles for OPORD and associated products:
  - < 96 hours (THRESHOLD)                      < 24 hours (OBJECTIVE)
- Time required to perform a readiness assessment:
  - < 6 hours (THRESHOLD)                      < 2 hours (OBJECTIVE)

#### Contingency Planning (upon receipt of a planning directive)

- Support development and maintenance cycle for OPLAN and associated products:
  - < 12 months (THRESHOLD)                      < 2 months (OBJECTIVE)
- Time required to perform a readiness assessment:
  - < 48 hours (THRESHOLD)                      < 24 hours (OBJECTIVE)

2.1.1 Total Force Analysis. (Increment I) NECC shall provide capabilities to access, display, analyze, model/simulate, and coordinate total force ability to undertake assigned wartime and current missions at selected points in time based on current unit levels of resources/training. Total force analysis includes units that have deployed as partial organizations.

2.1.2 Single/Multiple TPFDD. (Increment I) NECC shall provide capabilities to access, display, analyze, model/simulate, and coordinate force readiness assessments based on single/multiple TPFDD scenarios.

2.1.3 Historical/Trend Analysis. (Increment I) NECC shall provide capabilities to access, display, analyze, model/simulate, and coordinate force readiness assessments based on historical and trend unit levels of resources/training.

2.1.4 Readiness Reporting Updates. (Increment I) NECC shall provide capabilities to access, display, analyze, coordinate, and disseminate the most current and complete, registered and measured unit information to evaluate the total forces' ability to undertake assigned wartime and current missions at selected points in time.

➤ Frequency of readiness database updates:

Current < 3 hours                      Historical < 24 hours (THRESHOLD)

Current < 1 hours                      Historical < 12 hours (OBJECTIVE)

2.1.5 Readiness Information. (Increment I) NECC shall provide capabilities to access, display, analyze, and coordinate personnel, maintenance, logistical, infrastructure, and transportation information from multiple planning and readiness data sources.

2.1.6 Registering Units. (Increment I) NECC shall provide capabilities to register joint units organized under an approved joint manning document, US military forces with Service affiliation, DOD and non-DOD Agencies, multinational units, and other entities contributing to the total force readiness picture.

### 3. **Intelligence.**

Unless otherwise stated, all subsections will require integration of GES-based capabilities into MCP to support JIPB to meet minimum THRESHOLD requirements. Additionally, NECC shall plot objects from reported locations to displayed X Y Z coordinates at the level of accuracy received.

#### 3.1 **Joint IPB (JIPB).**

NECC will provide Joint Intelligence Preparation of the Battlefield (JIPB), targeting, and Intelligence, Surveillance and Reconnaissance (ISR) management through shared battlespace awareness.

3.1.1 Plotting Data. NECC shall provide capabilities to create, save, maintain, display, and coordinate essential overlays, matrices, templates, charts, and other products to include but not limited to: terrain analysis; observation and fields of fire; lines of communication; METOC analysis; joint doctrine; avenues of approach; situation/event; high value target; Chemical, Biological, Radiological, Nuclear, and High Explosive (CBRNE); decision support; named/target areas of interest; prioritized probable enemy COAs; Global Positioning Satellite (GPS) accuracy predictions; intelligence estimation; and aviation route planning. (Templates may be derived from ultra-wideband, millimeter-wave and synthetic aperture radar, multi-spectral IR, laser radar, or other sensor inputs.)

3.1.2 Geospatial Intelligence. NECC shall provide capabilities to integrate information with the following mapping tool functional areas or domains: analysis (e.g., terrain, trafficability, line of sight); visual (e.g., 2D/3D maps, areas of interest); spatial database management (e.g. National Geospatial-Intelligence Agency (NGA) data, Commercial/Joint Mapping Tool Kit (C/JMTK)); local image manipulation (e.g., motion imagery, satellite, photo); utilities (e.g., housekeeping, error messages).

➤ NECC provides the capability for Commanders, their battle staffs, and supporting intelligence analysts to perform manual and automated imagery correlation and full motion imagery with multiple dissimilar sources. It imports, displays, manipulates, compresses, and overlays national, theater, tactical and commercial sourced imagery.

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Extending this platform capability includes the import, play, and frame captures of national imagery, theater, tactical, and commercial sourced full motion imagery types.

3.1.3 Characteristics and Performance Data Analysis. NECC shall provide capabilities to access, display, process, and filter characteristics and performance data and integrate it with other IPB products for use in analysis of RED capabilities.

3.1.4 Force Protection Analysis. NECC shall provide capabilities to facilitate vulnerability assessment and analysis of significant battlespace characteristics of interest while ensuring force protection during conduct of military activities involving RED/GRAY force assets.

3.1.5 Fused Intelligence. NECC shall provide capabilities to merge, sort, analyze, and associate relevant information from multiple General Military Intelligence data sources into an intelligence product.

3.1.6 SCI Level Information. NECC shall provide capabilities to access and display information at the SCI level to understand the temporal and spatial relationships of BLUE/RED/GRAY forces through a mission-relevant set of battlespace visualizations that enable intelligence analysts to provide best quality support to current operations. Secret and below data (processed in an SCI enclave) will be disseminated at its original classification; whereas, SCI data will be sanitized prior to display on the Secret-level COP.

3.1.7 Battlespace. NECC shall provide capabilities to access, display, and analyze significant battlespace characteristics exerting increased influence on friendly and adversary operations during the conduct of specialized military activities (e.g., geography, METOC conditions, infrastructures, medical, local economic conditions, demographic factors, and effectiveness of host nation governments).

3.1.8 Nodal Analysis. NECC shall provide capability to conduct threat nodal analysis of networks (e.g., telecommunications, transportation, and electrical power, water and fuel distribution, etc.) and modeling/simulation to determine potential effects of attacks.

3.1.9 Virtual Knowledge Base (VKB). NECC shall provide capabilities to search and retrieve VKB data sets (e.g., finished and raw products, demographic, biographic, environmental and cultural data, tacit analytical knowledge, indications and warning data) through automation-assisted queries.

3.1.10 BLUE Critical Infrastructure. NECC shall provide capability to visualize BLUE critical infrastructure data (i.e. communications, transportation) data to assess vulnerabilities and provide threat warnings.

➤ Survival information dissemination (IAW GIG MA ICD):

95% < 8 seconds (THRESHOLD)

95% < 0.5 seconds (OBJECTIVE)

3.1.11 Information Integration. NECC shall provide capabilities to use Integrated Air and Missile Defense (IAMD) Missile Force Coverage templates, time event matrix, target value matrix, and specialized Military Operation Other Than War (MOOTW) IPB products.

3.1.12 Product Generation. NECC shall provide capabilities to generate and display IPB products from incoming message traffic and fusion of data from existing sources.

3.1.13 Threat Assessments. NECC shall provide capability to correlate dynamic threat assessments with known friendly vulnerabilities to support the production or modification of OPLANs and OPORDs that implement the friendly COA and improve the Commanders' ability to adapt the Joint Force's COA to changes in the situation. NECC must be capable of populating threat data from existing theater and national databases as well as the flexibility to provide an Improved Many-on-Many (IMOM) capability facilitating development of ingress/egress routes, Selected Area for Evasion (SAFE) areas, and spider routes for friendly air operations that avoid detection by enemy ISR assets.

## 3.2 Targeting.

NECC will provide Joint Intelligence Preparation of the Battlefield (JIPB), targeting, and Intelligence, Surveillance and Reconnaissance (ISR) management through shared battlespace awareness. NECC will support collaborative IO/Kinetic targeting including deconfliction with Intel exploitation of Targets of Interest, especially across DOD/DHS/DNI operational boundaries.

3.2.1 Frequency Analysis. NECC shall provide capability to perform BLUE/RED/GRAY frequency analysis in support of information warfare exploitation.

3.2.2 Target Numbering. NECC shall provide capability to use standard target numbering for consistent specification of targets. Primary numbering systems: Basic Encyclopedia (BE) and Unit Identification (UID) as defined by DIA. Capability to generate designated mean point of impact/desired point of impact (DMPI/DPI) identifiers and correlate to BE and UID numbers. NECC shall utilize standard joint track numbering system to enable joint execution of time-sensitive targets.

➤ Enable user to correlate DMPI/DPI identifier to:

BE and UID (THRESHOLD)

BE, UID, user-defined numbering system (OBJECTIVE)

3.2.3 Political-Military Objectives. NECC shall provide capabilities to access, retrieve, track, and process political-military objectives and strategy-to-task data from external sources (e.g., free text messages, planning applications, data entry).

3.2.4 Target Lists. NECC shall provide capabilities to access, display, build, merge, deconflict, edit, print, and coordinate target lists [e.g. candidate target list (CTL), target nomination list (TNL), joint integrated prioritized target list (JIPTL), No-Strike List (NSL), Restricted Target List (RTL), and Joint Target List (JTL)].

3.2.5 Imagery. NECC shall provide capability to automatically inject mensurated coordinates from an accredited mensuration tool into targeting analysis.

➤ NECC ensures Commanders, their battle staffs, and supporting intelligence analysts can access local, distributed, still, and full motion imagery archives. NECC ensures

bandwidth-efficient dissemination of still and full motion imagery in a bandwidth-constrained environment.

3.2.6 Weapons Analysis. NECC shall provide the capability to perform lethal/non-lethal weaponeering analysis and calculations. NECC shall provide capabilities to associate and rank order computed results and analysis to targets in recommended feasible weapon/platform combinations.

3.2.7 METOC Impacts. NECC shall provide capabilities to factor weather, oceanographic and GPS impacts/effects on weaponeering recommendations (e.g. weather forecast, climatology studies, spatial database management, and local image manipulation).

3.2.8 BDA. NECC shall provide capabilities for analysts to receive and process battle damage assessment (BDA) data on selected targets.

3.2.9 TSA. NECC shall provide capability to conduct TSA. NECC shall provide capabilities to: generate; graphically display, evaluate, access, retrieve, store, print, and edit TSA products; allow on-line hypertext access to primary targeting references to include DIA's Critical Element Handbook, BDA Quick Guide, and BDA Reference Handbook; and correlate combat assessment results to TSA.

3.2.10 Mobile Targeting. NECC shall provide the capability to comprehensively support planned and ad hoc prosecution of mobile and time-sensitive targets, to include the ability to interface with Geospatial Information System application programs which support prediction of enemy movement over well-characterized terrain and terrain suitable for selected activities, identifying terrain masking, unmasking terrain via terrain suitability, calculating LOS and viewshed, and conducting "what if" maneuver analysis.

3.2.11 Weapon-Derived Data. NECC shall provide capabilities to receive, translate, display, and link weapon system data (video, etc.) to assist in first-phase BDA focused on impact location and high-order detonation success. NECC shall provide capability to correlate other sensor data, as applicable, and update virtual target folders.

3.2.12 Theater-Level Targets. NECC shall provide capabilities to access, display, collect, process, and store status of theater-level targets including those that have been tasked and/or attacked but not yet confirmed by the JFC's combat assessment authority.

3.2.13 Target Archives. NECC shall provide capability to store user-defined targeting data utilized in exercises, experiments, crisis operations, and limited conflicts.

3.2.14 Mapping. NECC shall provide capability to exchange geospatial intelligence (e.g. imagery, imagery intelligence, and geospatial information) and use geospatial intelligence data in support of targeting (e.g., Geographic Information System, C/JMTK). NECC will ensure bandwidth efficient utilization of NCES and GES services for effective dissemination of geospatial information in bandwidth constrained environments

3.2.15 JMEM. NECC shall provide capability to use Joint Munitions Effectiveness Manual (JMEM) techniques in developing targeting solutions.

3.2.16 Law of Armed Conflict (LOAC), Rules of Engagement (ROE), No-Strike Target Lists. NECC shall provide capability to calculate, analyze, and graphically display collateral damage/effects and verify weapons solutions based on LOAC, ROE, or No-Strike target lists.

3.2.17 Database Management. NECC shall provide capabilities to initialize, access, display, update, maintain, replicate, back-up, recover, and archive target data.

3.2.18 Digital Target Materials. NECC shall provide capabilities to retrieve, display, manipulate, replicate, annotate, store, and use digital target materials.

3.2.19 Non-Lethal Targeting Solutions. NECC shall provide capabilities to develop, weaponize, and assess non-lethal targeting solutions (e.g. computer viruses to disable enemy C2, electronic warfare, and counter-space). NECC shall provide a capability to support Emission Control Planning to support the management and exploitation of the electromagnetic and acoustic spectra. NECC provides a capability to support developing electromagnetic exploitation plans using unit systems involved in operations against electromagnetic targets.

3.2.20 Areas of Interest. NECC shall provide capabilities to define and edit targeting-related polygonal geospatial information (e.g. named area of interest, targeting area of interests, No-Strike zones, and restricted areas).

3.2.21 Target Folder Definition and Management. NECC shall provide capabilities to define, edit and organize structured automated target folders that can be used to store and maintain information related to targets such as imagery, write-ups, messages, user comments, weapon system videos, mission reports (MISREP), and planning materials.

3.2.22 Target List Validation. NECC shall provide capability to validate target lists based on LOAC, ROE, or No-Strike target lists.

➤ Time required to validate list of 1,000 targets:

< 30 minutes (THRESHOLD)

< 15 min (OBJECTIVE)

3.2.23 Weapon Target Pairing. NECC shall provide the capability to automatically recommend solutions for Joint weapons against targets. The solutions shall consider parameters significant to delivery of the weapons in the pairing process.

### **3.3 ISR Management.**

Intelligence, Surveillance and Reconnaissance (ISR) requirements necessitate an enhanced organic intelligence capability able to access and leverage National, Theater, Tactical, and coalition intelligence assets and support. Emerging threats and strategic environments demand broadened intelligence capabilities to support forces engaged in combat against asymmetric threats, international terrorism, military operations other than war, operations in urban environments and littoral interdiction. NECC provides capabilities supporting these requirements with a standard set of integrated, linked tools, and services.

3.3.1 Modeling and Simulation. NECC shall provide capabilities to: model and simulate asset/sensor paths and collection parameters (optimized in 4D); analyze

technical feasibility with respect to METOC conditions, terrain, battlefield conditions, threat order of battle and threat characteristics; and define criteria including satisfaction of Master Air Attack Plan and commander's priorities. NECC shall provide the capability to deconflict national, theater and joint force and Service/functional component ISR collection plans. NECC shall provide the capability to model collection plan re-flow or sensor re-tasking. NECC shall provide capability to access and display related platform/sensor capabilities, characteristics and performance, and selected Collection Management (CM) data.

3.3.2 Collection Requirements. NECC shall provide capabilities to receive, display, process, maintain, and validate collection requirements based on plain language inputs. NECC shall provide capability to access/display status of validated needs submitted to collection centers/exploitation and assess impact on collection plans.

➤ Collection requirements accurately plotted within 2 minutes:

500 (THRESHOLD)

2,000 (OBJECTIVE)

3.3.3 Collection Management (CM). NECC shall provide capability to input user-defined parameters including considerations affecting collection opportunities, priority intelligence requirements (PIR), operational windows, decision points, latest time for intelligence of value, anticipated collection assets required, and measures of effectiveness (MOE) for satisfying EEI. NECC shall provide capabilities to access and incorporate priority intelligence requirements (PIR) and Commander's guidance. NECC shall provide capabilities to generate requests for information (RFIs) on the basis of information contained in or missing from intelligence reports. NECC shall provide capabilities to access, display, edit, correlate, and validate RFIs; as well as create, display, edit, correlate, and validate, and submit a multi-discipline collection plan using organic and external target information for all target types, including mobile target prosecution and counter denial and deception targets.

3.3.4 Collection Message Types. NECC shall provide capabilities to create, access, display, edit, parse, correlate, validate, and cross-reference standard collection message types with related data for national, theater, and joint force and Service/functional component assets. NECC shall provide the capability to disseminate data to those elements requesting the information.

3.3.5 Intelligence Requirements. NECC shall provide capabilities to create, display, edit, correlate, validate, prioritize, and submit standard intelligence requirements [e.g. PIR, RFI, essential elements of information (EEI), GEOINT, SIGINT, HUMINT, MASINT, counterintelligence, all-source collection]. NECC shall provide the capability to accept submissions from all echelons of command.

3.3.6 Feedback Products. NECC shall provide capability to generate basic collection evaluation feedback products using web-based, interactive forms, automatic database population and standard templates for email attachments.

3.3.7 Collection Publications and Directives. (Increment I) NECC shall provide capabilities to access and display standard collection management publications and directives, including platform/sensor capability and usage documents.

3.3.8 ISR Assets. NECC shall provide capabilities to manage, schedule, and task ISR assets. NECC shall provide capability to develop multi-discipline collection strategies for mobile target prosecution and counter denial and deception efforts.

3.3.9 Link Collection Requirements and ISR Assets. (Increment I) NECC shall provide capability to dynamically link intelligence collection management information with ISR asset capability to determine status, current/planned employment and provide a deconflicted collection plan.

3.3.10 Collection Needs, Tasking, and Coverage. NECC shall provide capabilities to integrate ISR collection data (such as: ISR assets tasked, status of ISR assets, targets expected to be tasked for collection) into IPB products. NECC shall provide capabilities to: access and display IPB and Meteorology and Oceanography (METOC) products in 4D; and incorporate results into ISR asset battle management planning. NECC shall provide the capability to incorporate and display specialized collection reporting vetted through appropriate components (e.g. JF Special Operations Component Commander) in addition to time-sensitive or special collection requests/amplifications from alternative sources (e.g. SOF).

3.3.11 ISR Asset Battle Management. NECC shall provide capabilities to interface, synchronize, and cross-cue collection management, component ISR asset battle management, operations planning, and targeting data/systems.

3.3.12 ISR Asset Status. NECC shall provide capabilities to access and display friendly collection asset status (including covered/concealed locations of SOF acting as collection assets and vetted through appropriate components); availability; utility; requirement satisfaction; and increased visibility into tasking for national, theater, and joint force and Service/functional component sensors.

3.3.13 Terrain Masking of Sensors. NECC shall provide capabilities to access, display, and analyze terrain data to determine terrain masking of sensors based on orbital/track parameters and other related factors.

3.3.14 Target Match. NECC shall provide capability to identify best ISR asset-to-target match and identification of other options and associated tradeoffs.

3.3.15 ISR Management, Targeting: Surveillance Targets. NECC shall provide capability to receive notification of visual changes in surveillance target and detected changes from a ground sensor. NECC shall provide capabilities to filter, catalog, store, and retrieve surveillance data.

### **3.4 Joint IPB, ISR Management, and Targeting.**

NECC will enable Joint Intelligence Preparation of the Battlefield (JIPB), targeting, and Intelligence, Surveillance and Reconnaissance (ISR) management through shared battlespace awareness. NECC will also provide a capability to develop, manage, and disseminate the Enemy

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Order of Battle (OoB), provide enemy weapons systems characteristics, and performance parameters. The capability is also able to integrate tactical and near real-time revisions to the OoB. NECC provides the capability for Commanders, their battle staffs, and supporting intelligence analysts to perform manual and automated correlation of the OoB with multiple dissimilar sources.

3.4.1 General Military Intelligence (GMI). NECC shall provide capability to replicate data from one local GMI database to/from another local and/or national GMI database.

3.4.2 GMI and Overlays. NECC shall provide capability to coordinate local GMI database records and associated graphics (e.g. map overlays) with intelligence elements.

3.4.3 Dynamic Links. NECC shall provide capability to dynamically link intelligence journals to local GMI database records and intelligence workbooks.

## **4. Situational Awareness.**

NECC shall provide the capability to execute command and control of forces enabled by decision superiority achieved through shared situational awareness via a Common Operational Picture (COP). For the purposes of this CDD the term COP shall be considered consistent with the term User Defined Operational Picture (UDOP) as defined by NCES guidance (DODD 8320.2).

### **4.1 Shared Situational Awareness.**

NECC provides shared situational awareness by integrating information from unique sensors (e.g., Combat ID and Unmanned Vehicles), emitters and real-time/near real time event reporting networks into the COP. NECC provides ensured situational awareness by accessing information systems spanning Top Secret and below, and SCI security enclaves. NECC provides scaleable situational awareness by incorporating tactical information feeds, such as those provided by the Common Tactical Picture (CTP), with other external sources, to display a fused, accurate, timely, complete and integrated picture of the battlespace. NECC provides shared situational awareness via the COP to unit systems (e.g., combat, weapons control, METOC, navigation, cryptologic, etc.). Dissemination shall be tailorable, based on the clearance level of the recipients.

By applying judgment and analysis to the COP, warfighters may achieve situational understanding and make appropriate and timely battle management decisions. Staffs contribute to the commander's situational understanding by continually updating the running estimate, which is accessed through the COP. Staffs also use the COP to assist the commander in exercising control, which facilitates retention of the commander's focus on command. NECC shall enable decision superiority anywhere in the battlespace through shared situational understanding enabled by the COP.

NECC shall plot objects from reported locations to displayed X, Y, Z coordinates at level of accuracy received. All subsections of 4.1 with plotting needs will be annotated with \*\*.

Integration of land, air/space, and maritime/littoral operations, and intelligence information into a COP. (THRESHOLD)

Upon user request of information in the operations center, display reported location:

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< 15 seconds for standard message formats (THRESHOLD)

< 1.0 seconds for standard and non-standard message formats (OBJECTIVE)

4.1.1 BLUE Force Location, Automated Track Feeds. (Increment I) NECC shall provide the capabilities to access and display BLUE force locations for surface, subsurface, air, space, and ground units or entities originating from Multi-TDL Networks (to include Sensor Networks, Ground Networks, and Intelligence Networks), Line-Of-Sight/Non-Line-Of-Sight (LOS/NLOS) BLUE Force Tracking devices, unattended ground stations (e.g. Federal Aviation Administration radar) and broadcast messages. \*\*

Unless otherwise stated, sections 4.1.2 – 4.1.27, will require integration of GES-based capability into COP display. (THRESHOLD)

Upon user request of information in the operations center, display reported location:

< 15 seconds for standard message formats (THRESHOLD)

< 1.0 seconds for standard and non-standard message formats (OBJECTIVE)

4.1.2 BLUE Force Location, Other Data Sources. (Increment I) NECC shall provide the capabilities to access and display unit position data derived from external/non-track producing data sources such as relational databases, planning data, and combat support data. \*\*

4.1.3 BLUE Force Location, ISR Sensors. (Increment I) NECC shall provide the capabilities to access and display current ISR and CBRNE sensor locations. \*\*

4.1.4 Unit Aggregation/De-Aggregation. (Increment I) NECC shall provide the capability to aggregate/de-aggregate selected BLUE force units into succeeding higher and lower echelons. NECC shall provide user selectable ability to maintain individual unit/platform locations for entities such as plotting center mass while maintaining visibility of forward units. NECC shall provide have the capability to develop, access, display, process, assign authorizations and store user preferences, filters and/or profiles (e.g. the capability of automatic and/or user defined unit aggregation/de-aggregation for entities on the COP, the capability to dynamically overlay specific portions of the running estimate, etc.)

4.1.5 RED/GRAY/Unknown Force Tracking. (Increment I) NECC shall provide the capabilities to access and display RED/GRAY/unknown (land, maritime, air, and space) entities derived from raw and/or processed MASINT, GEOINT, SIGINT, HUMINT, and unattended ground station data. \*\*

4.1.6 Display Moving Targets. (Increment I) NECC shall provide the capabilities to access and display unexploited and exploited moving target indicator data. \*\*

4.1.7 Display RED/GRAY/Unknown ISR Assets. (Increment I) NECC shall provide the capabilities to access and display RED/GRAY/Unknown force ISR sensor locations. \*\*

4.1.8 Multiple Target Database. (Increment I) NECC shall provide the capabilities to access and display targeting information from local and external databases for targets

using a variety of search criteria definable within the COP. NECC provides a capability to archive, maintain, and interact with Red Threat Assessment history data and tracks to support NECC Course of Action (COA) development, developing a capability and concept for storing significant activity/events to enable Predictive and Intelligence Battlespace Awareness for the COP and the supporting common intelligence picture (CIP). \*\*

4.1.9 Overlay Generation and Display. (Increment I) NECC shall provide the capabilities to access, generate, and display combat support, land component, maritime component (i.e., Screen KILO, FOUR WHISKEY), airspace command and control, air defense, fire support, airspace coordination, current/projected enemy situation overlay information in the COP, ground trace field of views from related space assets and related views. NECC shall provide capability to create overlays with embedded pedigree information such as created by and last updated.

4.1.10 Map Displays. (Increment I) NECC shall provide capabilities to access and display three-dimensional geospatial intelligence data (e.g. JIPB products and targets) to support airspace de-confliction, fire support coordination, and mission planning/execution functions. NECC shall provide the capability to roam, zoom, and fly/drive-through (i.e. BLUE/RED views) without degrading plotted data accuracy or topological structure. NECC provides the capability to geo-register and render standard NGA GEOINT products, unit position and planned track data, Blue Force planned track data, and navigation-quality map products. The display shall include the capability to depict the effects of related space-assets that support the ground and air battle environment.

➤ Integration of GES-based 3D mapping capability into COP display:

User-driven roam, zoom, fly/drive-through (THRESHOLD)

Automated scenario-driven fly/drive-through (OBJECTIVE)

4.1.11 Coordinate Conversion. (Increment I) NECC shall provide the capability to translate local datum coordinates to/from World Geodetic System (WGS)-84, Universal Polar Stereographic, Universal Transverse Mercator (UTM), or future standard.

4.1.12 METOC Data. (Increment I) NECC shall provide the Joint METOC Data Base, the capabilities to access, disseminate, and display current and forecast data (to include atmospheric, oceanographic, exo-atmospheric and space environmental conditions and their effects) on the COP and in other related views of information such as temporal depictions of effects on systems and operations as weather moves across an operational area. NECC shall provide access to METOC support data bases.

4.1.13 Joint Force Synchronization. (Increment I) NECC shall provide the capabilities to access, integrate, and display BLUE/RED/GRAY force locations, disposition, tasks, timelines, and capabilities [e.g. Mobility/Counter-Mobility information (engineering overlay information), Communications Support Information/Nodal Overlay (communications support information (e.g. overlays, unit locations, assets)], communications status, force readiness, order of battle, etc.) on an integrated information

display tailored to ensure mission/situational relevance to enable vertical and horizontal self-synchronization of the Joint Force. NECC shall provide the capability to: permit operators to tailor presentations readily to a task or decision at hand; and activate/deactivate alerts to receive and send.

4.1.14 Display Urgent Information. (Increment I) NECC shall provide the capability to rapidly disseminate urgent information through messaging alerts to COP users and other appropriate recipients (e.g. TBM event, NBC event, overlay updates, high interest track messages). NECC shall provide the capability to alert operators and forward alerts to the other MCPs when relevant information or conflicts are detected (e.g. air-strike operations scheduled in a place and time where BLUE ground operations are occurring, warning information when RED forces enter certain areas or mass a certain number or type of forces in an area). NECC shall provide the capability to add/modify unique audible alarms for missile alerts predicted to impact user defined areas.

➤ Survival information dissemination (IAW GIG MA ICD):

95% < 8 seconds (THRESHOLD)

95% < 0.5 seconds (OBJECTIVE)

4.1.15 COP on the Move. (Increment I) NECC shall provide the capabilities to access and display COP information while users are moving from one location to another using any transportation means including but not limited to: vehicular, maritime craft, air mobile, and ubiquitous clients supporting joint and other echelons. \*\*

4.1.16 Identify and Access Amplifying Data. (Increment I) NECC shall provide the capability to visually distinguish tracks/plotted objects containing amplifying data and distinguish relevant or time-sensitive information on other related views. NECC shall provide both manual and automated capabilities to access and display tracks/plotted objects with associated amplifying data (e.g. status, force readiness, order of battle, weapon systems characteristics and performance parameters, imagery) from multiple dissimilar sources. NECC shall provide the capabilities to access and display related information that can be arranged in multiple views to facilitate the decision-making process.

4.1.17 Record/Playback. (Increment I) NECC shall provide the capability to record/playback track data by phase, unit, organization, echelon, location or time (includes TBM events IAW TAMD CRD) in selectable timeframe increments.

4.1.18 Projected Location/Coverage. (Increment I) NECC shall provide the capabilities to access and display projected BLUE/RED/GRAY force locations and sensor coverage derived from available data sources.

4.1.19 Historical Location. (Increment I) NECC shall provide the capability to access and display historical BLUE/RED/GRAY force locations derived from available data sources. NECC provides a capability, complying with legislated requirements, to access historical unit movement and status data.

4.1.20 Global COP. (Increment I) NECC shall provide the capability to access sufficient track data to support joint force and Service/functional component and global views (e.g. rotatable, 3-D global representations for global ballistic missile defense engagements)

and missions. NECC shall facilitate development of a federated COP for shared awareness across the Area of Responsibility (AOR) and be capable of displaying data from the Single Integrated Air Picture/Single Integrated Space Picture/Joint Data Network. NECC will provide displays and human machine interfaces (HMI) to support JTF operations. In addition to providing the capability to receive and process near-real time track data, NECC will provide the capability for the transmission and reception of JTF and Component command orders via tactical data links, with both automatic and operator actions, as required. The operator shall also have the capability to selectively display and manage tactical data link information by data type, geographic location, source, time, and other options. Displays shall be able to correlate and project the cumulative effects of the multiple staff estimates. Displays shall also allow users to represent and analyze the battlespace in four dimensions (width, depth, height, and time).

➤ Total Track Database Capacity:

20,000 (THRESHOLD)

User defined, no system limitation (OBJECTIVE)

4.1.21 Track Refresh. (Increment I) NECC shall provide the capability to refresh the display with user-defined parameters (e.g. track type, time increments, call sign).

4.1.22 Filter Display and Dissemination Based on Track Attributes. (Increment I) NECC shall provide the capabilities to access, display, process, and store track display filters and track transmission filters using multiple track attributes (e.g. source, latency, speed, geospatial location, altitude, parent unit/type, real, simulated, exercise, track type, unit name/type, call sign, IFF/SIF/PIF, time, mission, readiness and classification).

4.1.23 Customize Symbology. (Increment I) NECC shall provide the capabilities to access, customize, display, store, and track symbology (e.g. MIL-STD-2525, Naval Tactical Data System) for local users and to global or designated enclave users as the situation warrants.

4.1.24 Color Mapping. (Increment I) NECC shall provide the capability to display maps, imagery, and other graphical products in multiple colors.

➤ 16,777,216 colors (THRESHOLD)

➤ Maximum available > 16,777,216 colors (OBJECTIVE)

4.1.25 Mission Management. (Increment I) NECC shall provide the capability, tailorable by command, to aggregate/disaggregate data from multiple sources into a decisional information display. NECC shall provide capabilities to identify, access, organize, and display Service/Agency/joint/multinational-provided data sources to meet commanders' mission needs.

4.1.26 Friendly Force Description. (Increment I) Fused, timely description of friendly forces to include identity, current and forecast future capabilities, status, organization, network awareness and platform. (Threshold and Objective apply to Current and not Forecast.)

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- 95% complete, 95% accurate (THRESHOLD)
- 99% complete, 99% accurate (OBJECTIVE)

4.1.27 Non-NECC Equipped Forces. (Increment I) Interoperability with non-NECC equipped subordinate forces to include the capability to receive and manage platform and above level information, force tracking, shared operational graphics.

- 95% non-NECC forces (THRESHOLD)
- 99% non-NECC forces (OBJECTIVE)

4.1.28 Customized COP. (Increment I) NECC shall provide customized application of the COP providing continuous analysis or a “running estimate” of the operational situation tailorable by the identification of predetermined critical information requirements and display preferences. NECC shall provide the capability to enhance, reject or tailor analysis criteria.

- The capability to display and modify operational plans.
- The capability to issue commands, directives, orders and tasks to subordinate units, personnel, and/or automated equipment orders.
- The capability to direct force tailoring and task organization, coordinate and direct air, space, naval, and ground maneuver and effects, and identify and direct support functions.
- The capability, as determined by profiles and filters, to automatically generate and analyze the second and third order effects in the physical domain of directed orders, offer recommended follow-up actions, implement associated orders, and translate requirements to sub-systems.
- The capability to set automatic user alerts IAW profiles when confirmation of predetermined criteria is met (e.g. movement across a battlefield control measure, High Payoff Target (HPT), high probability of CCIR solution, sustainment replenishment, etc.). Alerts may be set to automatically direct action or to prompt the “human-in-the-loop”.
- The capability to override control mechanisms that allows the commander the flexibility to rapidly modify automated execution criteria IAW the developing situation.
- The capability to assess an operation by comparing the projected outcome against the current estimate to identify variances from expectation and their significance, i.e., within expectations or not IAW expectations of plan.

4.1.29 Common Tactical Picture (CTP). (Increment I) NECC shall provide customized applications of the Common Tactical Picture providing continuous tactical information that will serve as the most current positional and identification data for ground, maritime and air objects; permit an analysis of network performance; provide a timely, accurate and complete depiction of the tactical situation, tailorable through the implementation of predetermined critical information exchange requirements, automated doctrine statements

and display preferences established by the operator; provide a means to monitor the quality of the information with respect to the critical information exchange requirements, and monitor the health and status of the network that delivers the CTP.

- The capability to correlate and fuse individual platform/unit location, track and ID reports derived from the Multi-tactical data link network, sensor network, ground network, and intelligence network.
- The capability to display an accurate, timely and complete Common Tactical Picture for improved situational awareness and decision making by the JTF commander and functional component commanders.
- The capability to assess the accuracy, timeliness and completeness of the Common Tactical Picture with respect to predetermined operator-defined critical information exchange requirements.
- The capability to issue dynamic commands to subordinates regarding the employment of forces, sensors and data management procedures spanning the spectrum from the sensor to the shooter.
- The capability to direct, in near-real and real-time, the employment of air, space, naval and ground forces.
- The capability to specify, rapidly change and verify implementation of the configuration of the networks contributing to the CTP through the use of filters and automation features that control the theater architectures and associated transport mechanisms.
- The capability to assess network performance parameters (bandwidth, latency, loading, error rates); identify net loading conditions; anticipate network failures by monitoring status of communication links, processors, buffers and data storage devices; react to network failures and analyze reconfiguration options for optimum data transfer; and implement automatic user alerts that notify the operator when conditions exceed prescribed parameters.
- The capability to implement centrally controlled override mechanism to reconfigure all or portions of the networks in response to developing situations.
- The capability to build and test scaleable doctrine statements that permit the operator to rapidly implement sets of automated parameters that facilitate changes in network controls based on courses of action identified through the campaign planning process.
- Fusion: Correct utilization of each input source in fused picture 95% of the time (THRESHOLD); and 98% of the time (OBJECTIVE).
- Completeness: Assessed positional, track and ID information matches data required 80% of the time (THRESHOLD); and 90% of the time (OBJECTIVE).
- Accuracy: The fused information produces correct assessments (conforms to truth) 95% of the time (THRESHOLD); and 98% of the time (OBJECTIVE).

- Timeliness: Age of the information in the CTP is near-real time and supports the tactical task/mission at hand 95% of the instances (THRESHOLD); and is real-time in 99% of the instances (OBJECTIVE).

## 5. Force Employment – Air/Space Operations.

NECC shall provide a comprehensive set of capabilities enabling adaptive planning and execution. NECC shall provide a comprehensive set of capabilities that allows distributed commanders and staffs to collaboratively plan, prepare, monitor, execute, and assess operations regardless of mission context or time pressure (immediate action through long term planning) in the Joint (Threshold) / NECC Community (Objective) operational environments.

### 5.1 Air/Space Operations.

The new Triad concept provides a more diverse set of offensive and defensive warfighting capabilities by providing precisely tailored global strike operations with a full spectrum of nuclear, conventional, and non-kinetic options. NECC shall provide the capabilities to access, develop, circulate and store the synchronization matrix; priority information requests; task organization; maneuver unit OPLANS; OPORDs; Fragmentary Orders (FRAGO); specified, implied and essential task lists; and decision support templates in support of the overall operational picture of all components, centers, and Service task forces and provides a common operating picture for all mission areas and responsibilities.

Unless otherwise annotated, integration of GES-based capability into MCP to support ATO/STO cycle will be the THRESHOLD.

5.1.1 Air and Space Planning. NECC shall provide the capabilities, within the Joint/Combined Air Operations Center (AOC) or space functional AOC, to support development, production, and dissemination of: the Joint Air and Space Operations Plan (JAOP) and supporting plans/orders (e.g. ATO, STO, Airspace Control Plan (ACP); Airspace Control Order (ACO); Air Defense Plan (ADP); OPTASKLINK, and Tactical Operations Data Message (TACOPDAT). To support these actions, NECC shall provide an automated capability to represent, support, review, and maintain SA of worldwide and theater level satellite constellations (friendly, enemy, commercial, and other) and provide capability that supports product development (e. g. constellation health, Global Positioning System (GPS) Telemetry data, etc.), and dissemination, and maintains SA on space operations, including space force enhancement functions, force application activities, space control and space support.

5.1.2 Pre-Planned Air Support Request. NECC shall provide the capabilities to access, display, and process preplanned air support requests originating from other Functional Components/Services.

- Process preplanned air requests per component within the ATO Cycle maintaining 100% accountability:
  - 200 air requests with 95% successful parse rate and 100% accountability (THRESHOLD)

200 air requests with 99% successful parse rate and 100% accountability (OBJECTIVE).

5.1.3 Allocation Options. NECC shall provide the capabilities to access, display, develop, and analyze JFACC allocation options (e.g. aircraft, space systems, weapons effects/accuracy, GPS dilution of precision, terrain masking effects, jamming, targets, threats, IO, asset availability, combat support, JFLCC scheme of maneuver, other fire support assets availability and weather) based on JFC's apportionment decision.

5.1.4 Support Resource Matching. NECC shall provide the capability to match aerospace support resources (tankers, fighter escort, medical, applicable information warfare (IW) measures and assets, space systems, GPS status) to the needs of direct combat, Military Operations Other Than War (MOOTW), or Humanitarian Relief Operations sorties.

5.1.5 Aerospace Deconfliction. NECC shall provide the capability to identify conflicts among aerospace vehicles and ground forces, including resources used in: cross-AOR missile defense; assets allocated to theater AORs (manned, un-manned and low-observable aircraft, weapons and space-based systems mission plan, BLUE ground forces operating in deep battle space); and assets providing resolution options requiring human actions through acceptance of conflicts before continuing.

5.1.6 Emitting Weapons Systems Deconfliction. NECC shall provide the capabilities to identify conflicts among emitting weapons systems [e.g. laser, microwave, Electro Magnetic Pulse (EMP)] and provide resolution options requiring human actions through acknowledgement of conflicts before continuing. NECC shall provide capability to identify both atmospheric and exo-atmospheric deconfliction.

5.1.7 Monitor ATO/STO Execution. NECC shall provide capabilities to monitor ATO/STO execution (including assessment of ability to re-task mobility assets), and support dynamic planning for re-tasking assets to achieve JFC's desired effects.

5.1.8 Automated Alerting. NECC shall provide automated alerts when targets (e.g. Time-Sensitive Targets (TST)), are chosen for engagement within a user-specified radius of a joint special operations area, no-fire area, restricted fire area, or restricted operations area.

➤ Survival information dissemination (IAW GIG MA ICD):

95% < 8 seconds (THRESHOLD)

95% < 0.5 seconds (OBJECTIVE)

5.1.9 BLUE Force Deconfliction. NECC shall provide the capabilities to receive, calculate, translate, and populate weapon-derived bomb impact assessments for collateral damage evaluation for BLUE force deconfliction.

5.1.10 ISR Collection Alerts. NECC shall provide audio and/or visual alerts when collection assets are nearing a user-definable condition and the capability to associate alerts within pre-defined areas.

5.1.11 Automated Plan Evaluation. NECC shall provide the capability, using analytical models, to evaluate plans and system-generated options, including a "flyout" capability,

for compliance with JFC/JFACC strategy/direction and to measure the efficiency/effectiveness of the ATO, STO, and ACO in achieving stated goals and objectives.

5.1.12 Immediate Air Support Requests (ASR). NECC shall provide the capabilities to access, process, and display immediate air support requests to facilitate coordination between Joint/Combined AOC, Army Corps Tactical Operations Center (Army TOC), Navy Tactical Air Control Center (Navy TACC), and Marine Corps Tactical Air Command Center (Marine TACC).

- Support Five-hour surge over 24-hr. period:
  - 10 immediate ASR/hour (THRESHOLD)
  - 20 immediate ASR/hour (OBJECTIVE)

5.1.13 Mission Reports. NECC shall provide the capabilities to access, process, display, and link data in electronic mission reports (MISREP) to applicable functions (e.g. link to automated target folders, BDA reports, targeting databases, operational assessment statistics).

5.1.14 Space Infrared (IR) Correlation. NECC shall provide the capability to correlate ATO events with reported IR special events to determine if IR events are ATO related BDA or TST events.

5.1.15 Automated Production of COA Options. NECC shall provide the capability to produce COA options for time-sensitive operations, including rescue of downed aviators and other BLUE forces.

- Integration of GES-based capability into MCP to support TST operations (THRESHOLD)

5.1.16 Automated Immediate Targeting Capability. NECC shall provide the capability to support execution of the operational kill chain, Locate-to-Identify-to-Decide-to-Strike process for immediate targets, including those designated as time-sensitive.

- Integration of GES-based capability into MCP to support the fix-to-track-to-target-to-engage process (THRESHOLD)

5.1.17 Automated Operational and Combat Assessment. NECC shall provide capability to assess operational effectiveness in support of JFC's objectives.

- Integration of GES-based capability into MCP to support dynamic re-tasking (THRESHOLD)

5.1.18 New Triad Planning. NECC will provide the capabilities to support development, production, and dissemination of integrated global strike planning and C2 support to deliver rapid, extended-range, precision effects herein defined as kinetic including conventional and nuclear as well as non-kinetic, and mission support across the range of military operations (ROMO). These capabilities enhance national-level crisis management, planning and strategy development, and provide a C2 center for execution of sensitive and strategic force operations. NECC will aid in monitoring force status to

ensure the combat readiness of assigned forces and the preparedness of apportioned and non-apportioned forces to ensure appropriate reaction time in carrying out assigned missions.

5.1.19 Integrated Missile Defense Planning. NECC will provide capabilities to plan, integrate, and coordinate global missile defense operations and support. This includes missile warning, missile attack assessment, battle management, and intelligence systems integration for all CCDRs.

5.1.20 Information Operations Planning. NECC will provide planning, integration, and coordination of DOD Information Operations (IO) to include the core IO capabilities of computer network attack (CNA), computer network defense (CND), executing GIG network operations and defense, and electronic warfare (EW).

## **6. Force Employment – Land Operations.**

NECC shall provide a comprehensive set of capabilities enabling adaptive planning and execution. NECC shall provide a comprehensive set of capabilities that allows distributed commanders and staffs to collaboratively plan, prepare, monitor, execute, and assess operations regardless of mission context or time pressure (immediate action through long term planning) in the Joint (Threshold) / NECC Community (Objective) operational environments. NECC shall provide the capabilities to access, develop, circulate and store the synchronization matrix; priority information requests; task organization; maneuver unit OPLANS; OPORDs; Fragmentary Orders (FRAGO); specified, implied and essential task lists; and decision support templates.

Unless otherwise annotated, integration of GES-based capability into MCP to support land operations will be the THRESHOLD.

### **6.1 Display Battlefield Geometry.**

NECC shall provide the capabilities to access, process and display the current operational battlefield geometry.

6.1.1 Plans/Orders Development. NECC shall provide the capabilities to access, develop, circulate and store the synchronization matrix; priority information requests; task organization; maneuver unit OPLANS; OPORDs; Fragmentary Orders (FRAGO); specified, implied and essential task lists; and decision support templates.

### **6.2 Plan Joint Fires and Land Operations.**

The following paragraphs describe NECC capabilities allowing the commander to receive or generate a mission, specify information needs, acquire and distribute relevant information, apply judgment and analysis to understand the situation, visualize end states and describe intent and guidance.

6.2.1 Estimates and Orders. NECC shall provide a capability to interactively and collaboratively access, graphically display, develop, synchronize, modify, import/export, coordinate, assess, validate, disseminate, archive, and manage estimates, matrices,

Operation Orders (OPORD), Operation Plans (OPLAN), Fragmentary Orders (FRAGOS), branches and sequels to support the full spectrum of military operations.

- During training, alert, deployment, employment and redeployment mission phases. (THRESHOLD)
- During garrison operations and institutional training events. (OBJECTIVE)

6.2.2 Planning Capability. NECC planning capability shall be scalable and tailorable to extend across the functional area and apply to all types and scopes of operations. NECC shall identify planning synchronization conflicts with higher and adjacent Joint forces.

6.2.3 Text and Voice Dialogue. NECC shall have interactive text and voice dialogue to assist in preparing queries, Situation Reports (SITREP), and the development of plans, orders and directives.

### **6.3 Prepare for Land Operations.**

The following paragraphs describe NECC capabilities allowing the commander and staff to motivate, direct and enable subordinates, and supervise preparatory actions:

6.3.1 Mission Rehearsals. NECC shall provide the capability to collaboratively conduct mission rehearsals by forces separated in space during all mission phases, across the full spectrum of conflict, at home station and in training environments and at multiple echelons in Joint (Threshold) / NECC Community (Objective) operations.

6.3.1.1 En Route Planning. NECC shall provide the capability to conduct en route mission planning and rehearsal through simulation during movement by air, land, and sea, integrate into gaining theater command, and collaborate with other deploying service component commanders and staffs.

6.3.1.2 Rehearse Operations. Once in the Joint Operations Area (JOA), NECC shall allow commanders and staff to rehearse operations.

6.3.1.3 Functional Area Rehearsals. NECC shall allow FUNCTIONAL AREA elements to conduct FUNCTIONAL AREA specific rehearsals.

6.3.1.4 Fire Plan Rehearsal. NECC shall provide the capability to display time sequencing of target attack and/or reconnaissance as recommended by Joint Fires Element, targeteers, or as planned in an ATO. NECC shall provide alerts when changes in fire support coordination measures necessitate additional coordination among fire support agencies. NECC shall provide capabilities to display the effects of the fire rehearsal based on user defined criteria and parameters.

6.3.2 Task Organization. NECC shall provide the capability to dynamically change the task organization and or command/support relationships of subordinate units and/or controlling HQ without loss of momentum, capabilities, or resources. Subordinate units and/or controlling HQ may be a mix of Joint, or Multinational forces based on evolving operational requirements.

6.3.3 Combat Power. NECC shall enable combat power throughout the operations process. NECC shall provide capabilities to access, graphically display, monitor, and

coordinate combat power ratio of forces (includes BLUE/RED/GREY forces) arriving in theatre.

6.3.4 Biometric Data. NECC shall have the ability to access, store, classify, share and exploit biometric information on NECC Community personnel, neutral personnel, detainees, Enemy Prisoners of War (EPW) and varying populations.

6.3.5 Functionalities. NECC shall allow users to download and install additional authorized functionalities as required without system administration involvement.

## **6.4 Execute Joint Fires and Land Operations.**

The capabilities of NECC allow the commander to provide purpose, focus, vitality and adjustments during execution of the operation. NECC shall enable the commander and staff to execute plans via voice direction as well as physical interaction with the COP.

6.4.1 Networked Fires. NECC shall support execution of Networked Fires (NWF) and effects to determine effects solutions from sensor acquisition, determination of the selection of type and number of assets with which to attack the target, method of delivery of the effect, and combat assessment of the effects. NECC shall provide target information to the selected effects platform IAW the following times after determining targetable data.

- 6 seconds for Air Defense fires. (THRESHOLD = OBJECTIVE)
- 20 seconds for Non-Line of Sight (NLOS) / Beyond Line of Sight (BLOS) fires. (THRESHOLD)
- 15 seconds for NLOS / BLOS fires. (OBJECTIVE)

6.4.2 Clearance of Fires. NECC shall automate and facilitate the rapid clearance of fires and effects, to include deconflicting ground, air, and space for directed and kinetic energy weapons fired to, from, and through ground, air and space domains, but retain a capability for manual intervention as required by commanders or mission circumstances.

6.4.3 Analysis and Calculations. NECC shall perform analysis and calculations required for individual platforms in order to achieve desired effects on threat forces, to include non-lethal effects. NECC shall account for combining the cumulative effects of Line of Sight (LOS), BLOS and NLOS effects onto the same target. NECC shall provide in-flight updates to munitions as appropriate.

6.4.4 Handover. NECC shall provide the capability to conduct handover of a mission or task during an operation. This includes conducting battle handover, reconnaissance handover, passage of lines, and other operations or tasks requiring close coordination between different units and HQ. This capability extends to the handover of operations between Joint forces (THRESHOLD), and between the Joint forces and Inter-Agency and Multinational forces (OBJECTIVE).

6.4.5 Operate. NECC shall be capable of operating while stationary, on the move, mounted, dismounted, in garrison/installation, in training environments, during alert, deployment, employment and redeployment operations.

6.4.6 Monitor. NECC shall provide the capability to monitor current Joint and service air operations and dynamically re-task air assets allocated to the JFLCC in NRT.

6.4.7 Task / Re-task. NECC shall provide the capability to task, re-task and control service and Joint ISR assets in NRT. NECC shall provide automatic notification of detected changes in the surveillance area and prompt appropriate user response based on pre-established criteria. NECC shall provide the capability to visually portray sensor availability/footprint and provide on-demand mission effectiveness updates.

6.4.8 ISR Synchronization. NECC shall be capable of developing and executing an ISR synchronization plan that evaluates available ISR assets, system capabilities and fused current intelligence. NECC shall identify sensor coverage gaps and provide recommendations on a predictive collection strategy. This capability shall dynamically adjust the ISR plan in accordance with mission requirement timelines.

6.4.9 Terrain and Airspace Management. NECC shall provide four-dimensional terrain and airspace management capability to identify, coordinate, integrate, and regulate all air-ground, ground-air, and surface-surface operational requirements with fires in time, space, and altitude throughout the joint battlespace.

6.4.9.1 Integrated Air Picture. NECC shall employ positive and procedural control measures and receive and display a real-time integrated air picture through multi-path communications with air-ground forces and fire support.

6.4.9.2 Integrated Air and Ground Functions. NECC shall enable commanders and staffs to effectively orchestrate integrated air and ground maneuver, fires, and AMD systems in a Joint Integrated Air Defense System (JIADS)-compliant manner and control of operations within assigned AO's or functions assigned by the joint force commander.

6.4.9.3 Sensors. The capability to receive and display data from selected sensors to include motion imagery (video), signals intelligence (SIGINT), and moving target indicators (MTI)-like feeds

- Near Real Time (THRESHOLD)
- Real Time (OBJECTIVE)

6.4.9.4 Responsive Data Set. A responsive data set focused on specific geographic regions, which requires high-resolution elevation data, high-resolution imagery and/or dense feature information (based on operation/mission, type unit, required speed of delivery, et. al.). This mission specific data set is considered to be responsive to the needs of the commander specifically for mission execution.

## 6.5 Assess Joint Fires and Land Operations.

These capabilities for NECC allow the commander to continuously assess and revise current and future operations:

6.5.1 Assessment. NECC shall enable the commander and staff to decisively complete current operations and transition to new operations by providing: Combat assessment and/or target damage assessment and updated projections of enemy capabilities,

vulnerabilities, and courses of action; status of friendly forces and potential vulnerabilities of operations; assessment of operations on environment (e.g. on host nation infrastructure, weather, etc) and projected effects on courses of action; and decision aids that automatically combine multiple assessments, recommendations on critical shortfalls, and projection of those shortfalls into planning mechanisms in order to transition to future missions.

6.5.2 Combat Support Estimates. NECC shall provide the capabilities to access, develop, screen, circulate, and store combat support estimates including current/projected combat power and sustainment capabilities.

6.5.3 Fire Support Information. NECC shall provide the capabilities to access, display, circulate and store fire support unit locations, identities and asset information including visual depiction of the weapons coverage areas (e.g. range of various munitions types), sensor coverage, chemical munitions storage, nuclear targets and naval gunfire targets.

6.5.4 Fire Support Estimates. NECC shall provide the capabilities to access, develop, screen, circulate and store fire support staff estimates including: targets serviced in the ATO; recommended priority of fires; attack guidance matrix; high pay-off target list; and fire support execution matrix.

6.5.5 Target Cross Reference. NECC shall provide the automated capability to cross reference ATO missions against nominated targets. Nominated targets not serviced in the ATO shall be visually distinguishable on the COP.

➤ Integration of GES-based capability into MCP to support fire support planning (THRESHOLD).

6.5.6 Close Air Support (CAS) Planning. NECC shall provide the capability to support integrated fire planning through the integration of CAS allocations (both fixed and rotary wing) with naval and land-based fire support assets.

➤ Integration of GES-based capability into MCP to support fire support planning (THRESHOLD)

## 7. Force Employment – Maritime/Littoral Operations.

NECC shall provide a comprehensive set of capabilities enabling adaptive planning and execution. NECC shall provide a comprehensive set of capabilities that allows distributed commanders and staffs to collaboratively plan, prepare, monitor, execute, and assess operations regardless of mission context or time pressure (immediate action through long term planning) in the Joint (Threshold) / NECC Community (Objective) operational environments. NECC shall provide the capabilities to access, develop, circulate and store the synchronization matrix; priority information requests; task organization; maneuver unit OPLANS; OPORDs; Fragmentary Orders (FRAGO); specified, implied and essential task lists; and decision support templates.

Unless otherwise annotated, integration of GES-based capability into MCP to support maritime/littoral operations will be the THRESHOLD.

## 7.1 Undersea Warfare (USW).

Undersea Warfare is addressed in the following paragraphs and is incorporated as a Joint MCP for NECC Increment 1. Capabilities cover Water-space Management (WSM), Prevention of Mutual Interference (PMI), Anti-submarine Warfare (ASW) and ASW Decision Support are addressed here. The Navy Annex to the NECC CDD addresses additional capabilities not covered here. In future NECC Increments, additional capabilities will be incorporated into the NECC CDD.

7.1.1 Water-space Management (WSM). NECC shall provide a capability for the planning and management of undersea assets and for the allocation of water space in terms of ASW weapons control to permit the rapid and effective engagement of enemy submarines, while preventing inadvertent attacks on friendly submarines. NECC shall integrate water-space assignments into the COP. The user shall be provided with displays and tools to support incorporation of water space management criteria into planning factors.

7.1.2 Prevention of Mutual Interference (PMI). NECC shall provide a capability for the planning and management of undersea assets, friendly surface ships' towed bodies, and any underwater events (e.g. explosive detonations, research submersible operations, oil drilling operations, etc.) to prevent submerged collisions. NECC shall integrate PMI into the COP. The user shall be provided with displays and tools to support incorporation of PMI criteria into planning factors.

7.1.3 Anti-Submarine Warfare (ASW). NECC shall provide and display a consistent, accurate and timely situational understanding of the underwater battlespace and the various entities influencing it, including force disposition, sensor and weapon coverage, area delineations and the environment (atmospheric, bathymetric, oceanographic and geographic), to all participating nodes in the process of conducting either ASW or MIW.

7.1.4 ASW Decision Support. NECC shall provide rapid, automated decision support in order to optimize the intelligence, surveillance, reconnaissance, and prosecution efforts against the enemy.

7.1.5 ASW Courses of Action. NECC shall provide a weighted selection of courses of action and sensor positioning recommendations to the ASW Commander based on the latest and most relevant collective sensor performance predictions.

## 7.2 Mine Warfare (MIW).

Mine Warfare needs necessitate a complete, integrated mine warfare tool set accessible to environment, mine threat, Q-Route survey, and asset databases from remote (i.e., national and organic) data sources to determine overall risk to forces and risk mitigation strategies from the asymmetric mine threat. NECC shall provide capabilities supporting these needs with a standard set of integrated metrics and services.

7.2.1 MIW Situational Awareness (SA). NECC shall integrate with the shipboard Mine Warfare systems (including both mining and mine countermeasures) to provide the warfare commander, and other supporting commanders, with coordinated MIW SA.

NECC shall provide a scalable, consistent, fused, complete view of the tactical and operational mine warfare situation, to include mine threat areas, mine danger areas, operating routes, and ship self protection information. It shall allow the display of planned and actual search and clearance levels, risk assessments, and the mine/non-mine contacts tactical picture.

**7.2.2 MIW Mission Planning & Evaluation, Asset Management and Deconfliction.** NECC shall integrate with the shipboard Mine Warfare systems (including both mining and mine countermeasures) to provide the warfare commander with coordinated MIW SA. NECC shall provide a bi-directional interface between the MIW picture and the COP. The capability shall enable the planning, evaluation, situation assessment, display, and asset management tools to determine the optimum strategies, course of actions, plans, and employment of forces and systems assigned to the MIW commander in support of MIW operations. Additionally, NECC capability shall include the ability to determine risk, susceptibility, and vulnerability of forces.

**7.2.3 Collaborative Mine Warfare and Undersea Warfare Operations.** NECC shall integrate with ASW and MIW tools by using both MIW and ASW specific and related common strategies to optimize the employment of assets and minimize overall threat, risk, and exposure to the Battle Force.

### **7.3 Maritime Patrol Aircraft (MPA) Support.**

Maritime Patrol Aircraft require an integrated set of services to ensure a shared situational awareness picture is maintained and mission planning can be conducted collaboratively.

**7.3.1 MPA Shared Situational Awareness.** NECC provides shared situational awareness by integrating information from maritime patrol aircraft sensors, emitters, and real time event reporting networks into the COP. NECC provides a bi-directional interface between the Maritime Patrol Aircraft and the COP.

- Integration of GES based capability to support bi-directional Maritime Patrol Aircraft Shared Situational Awareness.

**7.3.2 MPA Mission Support.** NECC provides a capability to prepare aircrew briefings, show aircraft status and provide mission reconstruction.

- Integration of GES based capability to support Maritime Patrol Aircraft missions.

### **8. Force Protection.**

NECC will provide warning, critical information exchanges and planning required to minimize vulnerability of joint, multinational and US organizations, government and civil populations, resources, facilities, and critical infrastructure from enemy/terrorist threats in CONUS and OCONUS. NECC will integrate air and missile defense, HS/HD, consequence management (to include Civil Support), and related operations to provide BA. In addition, NECC will provide NRT BA, by leveraging GES' network of dynamic sources of information.

#### **8.1 Improved Early Warning (IEW).**

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NECC shall provide the IEW capability for Theater/Global Ballistic Missiles (TBM/GBM) and related events [e.g. predicted impact area (country, region, state), WMD dispersion] to theater forces. NECC shall provide the capability to fuse data/information from space, air, land, and maritime warning assets. NECC shall provide capability to support missiles in: flight windows; correlation of different Theater Event System (TES) sources; ability to add TES sources; ability to add/delete missile types; modify audible missile warnings; and addition/modification/deletion of overlays.

- Integration of GES-based capability into MCP to support IAMD (THRESHOLD)
  - IAW TAMD CRD IV-E-2 (Classified)

8.1.1 Suspend Simulated and/or Exercise Scenarios. NECC shall provide the capability to suspend simulated or exercise scenarios, and drop any simulated or exercise TBM/GBM event tracks and associated display information automatically, in the event of a credible real world threat event.

- Integration of GES-based capability into MCP to support IAMD (THRESHOLD)

Survival information dissemination (IAW GIG MA ICD):

95% < 8 seconds (THRESHOLD)                      95% < 0.5 seconds (OBJECTIVE)

8.1.2 Weapons of Mass Destruction (WMD) Effects Area Prediction. NECC shall provide the capability to access, develop and coordinate WMD effects prediction estimates and provide timely alerts and reports.

- Integration of GES-based capability into MCP to support IAMD (THRESHOLD)

Survival information dissemination (IAW GIG MA ICD):

95% < 8 seconds (THRESHOLD)                      95% < 0.5 seconds (OBJECTIVE)

8.1.3 Terrorism Alerts/Advisories. NECC shall provide the capability to alert units/installations at risk of changes to threat levels, force protection conditions, and information conditions based on terrorist/threat advisories. NECC shall provide for suspicious activity collection, reporting and sharing within appropriate information systems and ensure essential protection.

- Integration of GES-based capability into MCP to support force protection.  
(THRESHOLD)

Survival information dissemination (IAW GIG MA ICD):

95% < 8 seconds (THRESHOLD)                      95% < 0.5 seconds (OBJECTIVE)

8.1.4 Alert for Intrusion of Base or Critical Facility. NECC shall provide the capability for users to receive alerts about physical intrusion of base perimeter or designated critical facilities.

- Integration of GES-based capability into MCP to support force protection  
(THRESHOLD)

Survival information dissemination (IAW GIG MA ICD):

95% < 8 seconds (THRESHOLD)

95% < 0.5 seconds (OBJECTIVE)

8.1.5 Critical Infrastructure Protection SA. NECC shall provide the capability to access and display Critical Infrastructure Protection (CIP) information and civil force protector and specialty response personnel (e.g. WMD responders, hazardous material responders) location/status.

- Integration of GES-based capability into MCP to support force protection (THRESHOLD)

8.1.6 Rear Area and HS/HD: Crisis Response/Consequence Management. NECC shall utilize approved disaster response software tools to provide the capability to coordinate, assess, and monitor execution of crisis response and consequence management operations with lead federal/state/local agencies.

- Integration of GES-based capability into MCP to support rear area security and HS/HD (THRESHOLD)

8.1.7 Civil-Military Operations. NECC shall provide the capability to visually depict civil-military operations information including serious incidents, civilian population transportation, host nation facilities, government facilities/assets, and civil affairs.

- Integration of GES-based capability into MCP to support civil-military operations (THRESHOLD)

8.1.8 Information Exchange. NECC shall provide the capability to send and receive information to/from local/state/federal government and non-government agencies for homeland security support to include Humanitarian Assistance and Disaster Response (HA/DR).

- Integration of GES-based capability into MCP to support local/state/federal government and non-government agencies (THRESHOLD)

Survival information dissemination (IAW GIG MA ICD):

95% < 8 seconds (THRESHOLD)

95% < 0.5 seconds (OBJECTIVE)

8.2 Conduct Crisis Action/Contingency Planning: Integrated Air and Missile Defense (IAMD). (Increment I) NECC shall provide the capabilities to access, display, develop, process, analyze, and coordinate IAMD plans (including annexes/appendices, TPFDD) through a concurrent IAMD horizontal and vertical planning and execution process from the strategic national down to the joint force and Service/functional component levels. NECC shall provide capability to interface with applicable planning databases resident on service networks.

- Integration of GES-based capability into MCP to support IAMD (THRESHOLD)

## 9. Cross-Functions.

Needs serving more than one functional or mission area are categorized as cross-functions. NECC uses cross-functional and transformational capabilities to enable and enhance the ability to satisfy the functionally related activities inherent in the mission capabilities.

## 9.1 Cross-Function – Collaboration. (Increment I)

NECC shall provide the capabilities to collaboratively plan, execute, monitor, and assess joint and multinational operations by enabling vertical/horizontal information exchange between NMCS, Combatant Commands, JTF, JTF components, IC components, HS/HD components, DOD and non-DOD Agencies, and multinational components, as required. NECC will facilitate the sharing of information and services between and among apropos mission areas, domains, and COIs, as they conduct operations. Secure collaborative tool environment includes the following capabilities: audio, chat, web page, electronic mail, electronic document management, electronic meeting support (e.g. brainstorming, decision support), conference management (single, multiple, private), whiteboard, bulletin board/newsgroup, application sharing/casting, scheduling/calendaring, VTC, virtual team space, and persistent session. NECC shall allow user-definable sets of users, with shared attributes/needs, to be grouped together to form communities of interest (COI) to facilitate collaboration and coordination in order to accomplish a mission task.

- Integration of GES-based capability into NECC MCPs (THRESHOLD)

9.1.1 Relevant Data Exchange. (Increment I) NECC shall provide a dynamic, fully interoperable capability to electronically partition, and hand off relevant data to the appropriate inter- or intra-service user (Threshold), and for sharing with Multinational forces and Interagency (Objective).

- Inter- and intra- Service capability (THRESHOLD)
- Multinational Forces (OBJECTIVE)

9.1.2 Reachback. NECC shall provide the capability to design, recommend, synchronize, and execute a reachback strategy through automatic development of push, pull, broadcast and collaboration profiles and requirements.

- Integration of GES-based capability into NECC MCPs (THRESHOLD)

## 9.2 Cross-Function – Security Cross-Domain Services. (Increment I)

NECC shall provide the capability to exchange information across multiple security domains. NECC will comply with the following approval processes:

- Secret and Below Interoperability (SABI): DIACAP certification and accreditation, DOD Component Designated Approving Authority (DAA)
- Top Secret and Below Interoperability (TABI): DIACAP, DOD Component DAA.
- Top Secret/SCI and Below Interoperability (TSABI): DODIIS Security Certification and Accreditation Guide, IC Component DAA.

Integration of GES-based capability into NECC MCPs (THRESHOLD).

- SABI, TABI, and TSABI low-to-high and high-to-low information exchange (point-to-point) between selected joint, IC, HS/HD, DOD and non-DOD Agencies, and multinational components. Data formats: email with attachments, text, graphics, imagery (THRESHOLD).

- Collaboration: text chat, web-browsing, whiteboard, shared applications (OBJECTIVE)

### 9.3 Cross-Function – Training. (Increment I)

NECC shall provide a training capability that will be networked and interlinked with Service and joint training domains. NECC will allow the systems of systems architecture to be stimulated by joint force simulations and simulators for operational mission planning, rehearsals, and training. Training systems will:

- Generate operationally realistic data to simulate system functions and operations;
- Feed these data into and through the operational equipment to the system operator(s) or maintainer(s) by means of normal displays and indicators;
- Require the operator(s) or maintainer(s) to perform normal tasks and duties in response to the simulated inputs;
- Present the input data so as to realistically depict operational system response and functionality to include the capability to simulate degraded modes of operation;
- Simultaneously assess and record operator performance and response to simulated training operations, thereby providing realistic feedback on the accuracy and appropriateness of the performance;
- Provide an appropriate level of performance measurement and recording to allow both post training session individual feedback and semi-permanent performance records to provide for cumulative or aggregate records (individual, teams or battle groups) over time.
- Provide training according to both a macro and micro training device strategy

9.3.1 Collaborative Training. (Increment I) NECC shall provide the capability for collaborative, distributed, scenario based embedded training, and complementary tutorial training with technical documentation to meet initial/recurring, advanced user and system/database administration and maintenance training needs in garrison and deployed (e.g. mobile training team) environments. NECC shall provide tailorable instructor-assisted and self-paced training environments combining embedded and web based tools, on-line access to training support sites (e.g. distance learning), modeling and simulation capabilities to establish/reinforce NECC skill sets, and training management tools for: distributed simulation based training exercises, training metrics, training skill certification/accreditation, and scheduling.

- Integration of GES-based capability into NECC MCPs (THRESHOLD)

9.3.2 Embedded Training. (Increment I) NECC shall provide an embedded individual and collective training capability employing live, virtual, and constructive training and

exercises, which is not unique to simulations/training systems, and includes associated training management tools. NECC will include alerts to notify training managers of training updates and new capability, to include updates and new capabilities pertaining to training support software or systems. This capability must facilitate training in geographically separated force packages and across the operational spectrum. It must accommodate dynamic changes to task organization. Training applications will be interoperable with live, virtual, and constructive training environments.

- Joint Services access (THRESHOLD)
- NECC Community access (OBJECTIVE)

9.3.3 SCORM Compliant Courseware. (Increment I) NECC shall provide the capability to develop standardized and easily understood course materials to deliver training to the warfighter on a variety of platforms operating in diverse environments (classroom to work center) which meet Advanced Distributive Learning/Sharable Content Object Reference Model Standards (SCORM), with the same look and feel across classroom, web based, or computer based training.

- Integration of GES-based capability into NECC MCPs (THRESHOLD)

9.3.4 Test/Simulation Environment. (Increment I) NECC shall provide the capability to allow exercises to take place without corrupting real world databases with text/exercise data. The ability to use real-world data feeds during an exercise is necessary but the ability to write back to these sources must be able to be blocked. Exercises may also take place within a laboratory environment or through a simulation mode.

- Units must be capable of simultaneously conducting exercises in Live, Virtual, and Constructive environment. (THRESHOLD)

## 9.4 Cross-Function – Office Automation. (Increment I)

NECC shall provide the capability to collaboratively perform word processing, graphic/multi-media presentation (in user defined formats), and spreadsheet functions. Includes capabilities to access, display, build, edit, coordinate, and store slide-show target briefs and user-configurable target reports; prepare aircrew briefings and provide mission reconstruction.

- Integration of GES-based capability into NECC MCPs (THRESHOLD)

## 9.5 Cross-Function – Messaging. (Increment I)

NECC shall provide the capability to collaboratively perform electronic mail and message handling functions. Electronic mail shall contain directory look-up by name or position and be able to build collaboration teams.

- Integration of GES-based capability into NECC MCPs (THRESHOLD)

## 9.6 Cross-Function – Information Assurance. (Increment I)

NECC IA shall protect and defend NECC's shared data sources by ensuring availability, integrity, authentication, confidentiality, and non-repudiation. NECC shall provide for restoration by incorporating protection, detection, and reaction capabilities.

9.6.1 Protect and Defend. (Increment I) NECC shall provide the capability to protect and defend NECC MCPs, infrastructure, and shared data sources by ensuring availability, integrity, authentication, confidentiality, and non-repudiation. NECC shall meet and maintain minimum IA Defense in Depth standards, including certification and accreditation in accordance with the Defense Information Assurance Certification and Accreditation Process (DIACAP) and DODIIS Security Certification and Accreditation Guide processes. NECC shall utilize and interoperate with security management as well as the DOD trust authority infrastructure, as available. NECC shall provide proof of information origin and receipt as required.

➤ Integration of GES-based capability into NECC MCPs (THRESHOLD)

9.6.2 Multinational Information Sharing. (Increment I) NECC shall provide efficient, effective, and creditable solutions for the connection of Multinational Information Sharing Networks (MNIS) Combined Enterprise Regional Information Exchange System (CENTRIXS) networks to US networks, and between/within various MNIS CENTRIXS network security and information domains.

➤ Integration of GES-based capability into NECC MCPs (THRESHOLD)

## 9.7 Cross-Function – Discovery/Mediation/Storage. (Increment I)

NECC will utilize NCES to provide core services: discovery, collaboration, messaging, information mediation, and information storage; along with core applications/functions.

9.7.1 Information Use. (Increment I) NECC shall provide the web-based capabilities to access, search, display, generate, update, post, or advertise information content, services, and needs that exploit metadata descriptions of information resources stored in enterprise directories, registries, and catalogs. NECC shall provide the capability to retrieve, broker, translate, aggregate, fuse, or integrate mission-relevant information to plan, execute, monitor, and assess joint and multinational operations. NECC shall provide organizations the capability to conduct major combat and autonomous operations with limited or interrupted connectivity. All NECC workstations shall function as smart client, providing disconnected operators full application functionality of locals data stores. Operators shall receive an alert when GIG connectivity is lost and when it is restored. Workstations disconnected from the GIG shall maintain full functionality upon the LAN. Upon recovery from disconnected/limited connectivity operations, databases shall be synchronized. Designated workstations shall be informed of the amount of data and time to transfer data required to synchronize individual databases. Once prioritized by the designated workstation, synchronization processes shall be transparent to the operator. NECC will enable users to choose from multiple 'authoritative' data sources as defined by the UCP responsible agent (authoritative data sources are those having the highest probability of integrity/latency/dependability).

➤ Integration of GES-based capability into NECC MCPs. (THRESHOLD)

Text-based content, Content management, Global directory system, Enterprise catalog, Enterprise index (THRESHOLD).

Knowledge management (OBJECTIVE)

100% of NECC applications permit full application of local data stores when workstation is disconnected from the GIG (THRESHOLD)

100% of operable NECC workstations retain LAN connectivity when GIG connectivity is interrupted (THRESHOLD)

9.7.2 Profiles. NECC shall allow users to build profiles by key attributes (e.g., timeliness, quantity, confidence level, geographic area, etc.) and acquire needed information by search queries/intelligent searches.

- Searches shall yield 85% of available, needed information, with no more than 20% of the received information being irrelevant/unusable (waste) or failed searches (THRESHOLD)
- 95% of available, needed information with no more than 10% of the received information being irrelevant/unusable (waste) or failed searches (OBJECTIVE)

## 9.8 Language Translation.

NECC shall provide capability to access and use language translation (LT) tools. Capability will allow text-to-text, text-to-voice, voice-to-text, and voice-to-voice translations into specific language and dialects. The LT capabilities shall provide for the direct translation of regional people, agencies, and forces in a Multinational or other foreign national setting.

- 10 languages with 70% accuracy (THRESHOLD)
- 50 languages with 80% accuracy (OBJECTIVE)

## 9.9 Mission Rehearsal / After Action Review.

NECC shall provide Course of Action (COA) development, Mission Rehearsal, and After Action Review (AAR) capabilities. NECC will provide the ability to discriminate and partition training, Course of Action Analysis, Mission Rehearsal and After Action Review from live event data. These capabilities will be provided by three primary functions:

- Integration of GES-based capability into NECC MCPs (THRESHOLD)

9.9.1 Data Collection. NECC shall provide the capability to gather data from future, on-going, and completed operations/events. The user will be able to enter data for future operations. The data mining capability will gather the on going and completed operations data. Data mining will utilize NECC's MCPs and warfare domain-specific applications to access data from across the NECC Community. NECC will provide the user both standard and tailorable data mining techniques. This will allow the user to access standard packages of AAR information while retaining the capability to search deeper into multiple data types (planned/actual, situation/event, etc.) from different sources. A variety of search methods will complement the tailorable data mining techniques. The

NECC data collection capability will not interfere with any other aspect of NECC while it is conducting its data mining.

- Integration of GES-based capability into NECC MCPs (THRESHOLD)

9.9.2 Data Analysis. NECC shall provide the capabilities to perform historical analysis/AAR, data manipulation, and the development of COAs and Mission Rehearsals. The historical analysis/AAR will be generated using standard and/or tailorable methods. These methods will allow the user to conduct in-depth investigations and generate recommendations from simulated, planned, and actual operations. NECC's data manipulation capability will allow the user to modify/re-engineer any data for use in other data analysis products. NECC will be able to provide the capability to develop and assess the performance of theater architectures' ability to meet the CDR's information exchange requirements (IERS), through the use of an automated capability to test the network's ability to meet specified performance criteria (speed capacity, bandwidth, data fusion, connectivity paths).

- Integration of GES-based capability into NECC MCPs (THRESHOLD)

9.9.3 Data Presentation. NECC shall provide the capability for the user to present the data and analyses in various methods. The collected data can be output in multiple different formats. The historical analyses/AARs will be available in standard and tailorable formats. NECC shall provide the capability to interactively wargame multiple COAs and modified/re-engineered data elements. An interactive Mission Rehearsal capability will also be provided by NECC.

- Integration of GES-based capability into NECC MCPs (THRESHOLD)

## 9.10 Effects Assessment Data Management.

NECC shall provide the capability to successfully implement an effects-based approach to joint operations. The capability must be able to support the assessment of the results of U.S. or coalition actions on adversary/third party system behaviors or capabilities. It must be used as a metrics-based source for recommending courses of action to develop decision support matrices for planners and the commander. It shall provide the capability to track the status of coalition actions against key nodes while independently maintaining an assessment status of the results of those effects on system behaviors or capabilities. An EA capability is designed to support, not determine, a Commander's assessment of the situation and decision making. The EA capability shall provide all the following required capabilities (U.S. Forces - THRESHOLD, Multinational Forces - OBJECTIVE):

- Effect/Measures of effectiveness (MOE)/Indicator Entry: Capability to build an assessment model by linking effects to subordinate MOE and each MOE's supporting indicators.
- Threshold definition: Capability to define indicator report types (data or discrete), define data ranges, and set assessment thresholds/criteria (i.e. RED, AMBER, GREEN) based on the anticipated data ranges.

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- Data aggregation: Capability to aggregate indicator data at the MOE level based on user-defined criteria for RED/AMBER/GREEN thresholds and relative indicator weightings, with normalized MOE values aggregated at the effect level based on relative MOE weightings.
- Task tracking: Capability to independently track and display the status of actions on nodes (based on measures of performance) associated with desired effects.
- Data entry: Capability for geographically dispersed users to simultaneously access and input indicator or task status data based on administrator-defined access privileges.
- Data Security: Capability to restrict access to individual data and narrative fields to specific users.
- Interoperability: Capability to receive automated data feeds from designated software applications.
- Sensitivity analysis: Capability to analyze the relative sensitivity of the Effects Assessment based on postulated changes in indicator values.
- Data archival: Capability to archive and retrieve assessed data.
- Tailorable displays: Capability to produce a user-tailorable display of assessed data in a format suitable for staff/senior-level briefings.