



Emerging Naval Concepts & Integration

An Introduction

12 February 2023



Overview

- Emerging Naval Concepts
 - Concepts & Nesting
 - DMO, LOCE, and EABO
 - Supporting Concepts / Initiatives
- Naval Integration
 - Definition
 - Considerations
 - Integration Across Functions
 - Command and Control
 - Intelligence
 - Maneuver
 - Fires
 - Sustainment
 - Force Protection & Information



Emerging Concepts



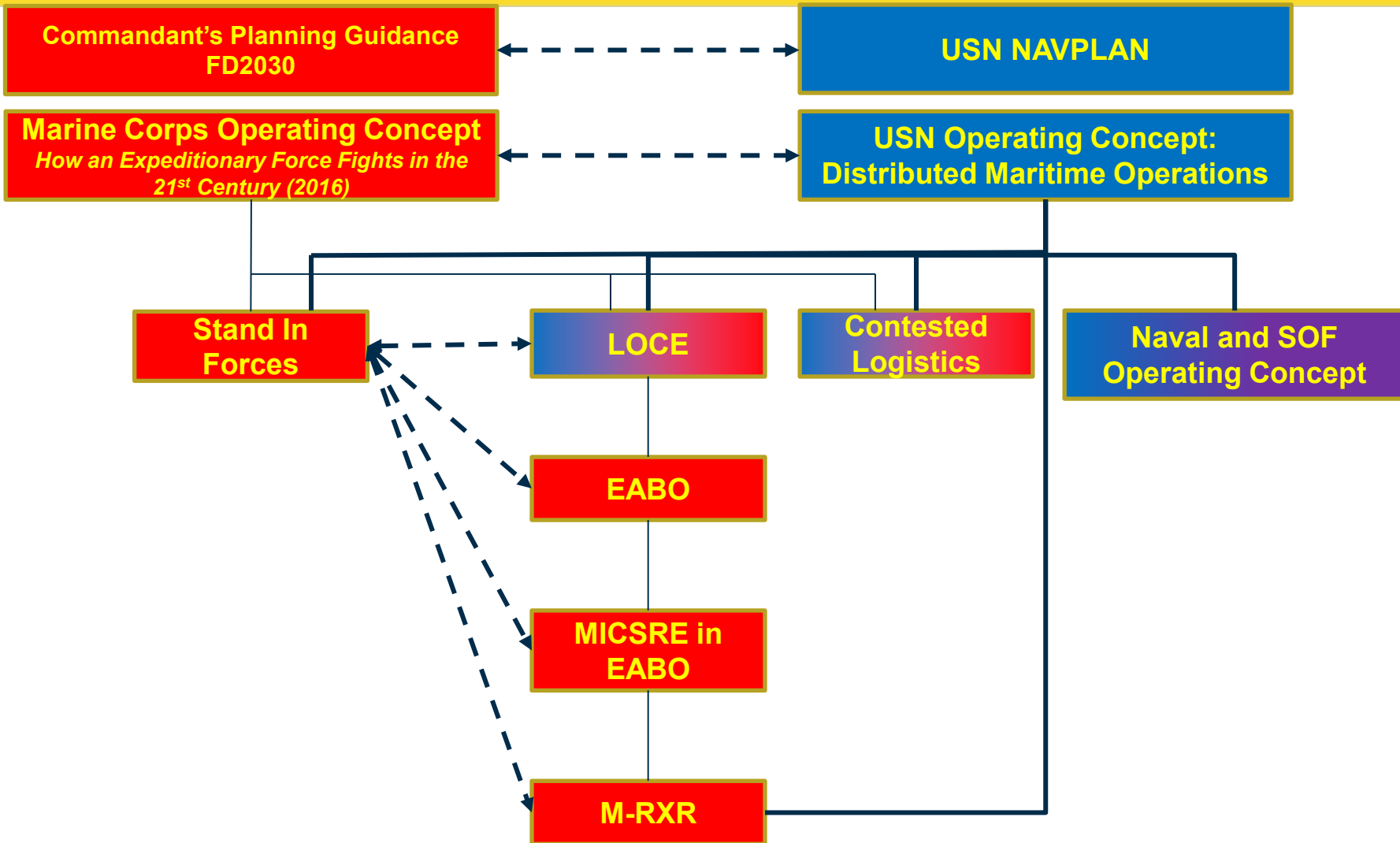
Guiding Doctrine and Concepts

- CNO NAVPLAN 2022
- Commandant's Planning Guidance (Warfighting) / FD2030
- Marine Operating Concept (2016)
- Distributed Maritime Operations (DMO)
- Littoral Operations in a Contested Environment (LOCE)
- Tentative Manual for Expeditionary Advanced Based Operations (EABO)
- A Functional Concept for Maritime Reconnaissance/ Counter-Reconnaissance
- Concept for Stand in Forces (SIF)
- Joint All Domain Command and Control (JADC2)
- Adapting Cross-Domain Kill-Webs

There are numerous concepts in development; many details are classified



Concept Nesting



Concepts of DMO, LOCE, EABO and SIF are designed to bring additional capability and capacity to expand ISRT & Fires (coverage and redundancy) for Fleet operations via FLOS and FLOT within a WEZ



Distributed Maritime Operations (DMO)

• Tenants (think friendly)

- Integration (of platforms)
- Distribution (of forces)
- Maneuver (within all domains)

• Objectives (think enemy)

- Isolate (from key capabilities)
- Dislocate (beyond range of land (WEZ))
- Destroy (key capabilities)
- Disintegrate (cohesion)

• Challenges & Considerations

- Concentration vs. Distribution vs. Massing
- Simultaneity vs. Sequential Operations
- Resource limitations and global commitments limit capacity
- Forward operating bases are subject to attack or restrictions

• Endstate

- Fleets to employ integration, distribution, and maneuver to neutralize enemy advantages; destroy enemy forces; exercise initiative and accept/exploit risk for mission accomplishment.



Littoral Operations in a Contested Environment (LOCE)

• Tenants

- Battlespace awareness
- Conduct distributed maneuver
- Control key maritime terrain and hydrography
- Conduct distributed and push logistics

• Objectives

- Gain and maintain battlespace awareness
- Establish persistent sea denial capabilities
- Establish sea control in a hostile environment
- Employ defensive and non-lethal capabilities in an uncertain environment
- Conduct power projection operations

• Challenges & Considerations

- Operating in a contested environment
- Will require select massing
- Threat capabilities
- Two regions:
 - Seaward: Area from open ocean that must be controlled to support ops ashore
 - Landward: Area inland that can be supported directly from the sea, and/or that can support operations in the ocean

• Endstate

- Unified framework for USN-USMC operations to gain sea control



Expeditionary Advanced Base Operations (EABO)



• Tenants

- LOCE and EABO are complementary
- Further distribution of forces
- Increase sensors
- Mobile, relatively low cost capabilities in austere locations
- Low signature

• Objectives

- Support Sea Denial and Sea Control Operations
- Contribute to MDA / RMP / COP
- Provide forward C5ISRT and X-C5ISRT to reduce the kill chain (F2D2EA)
- Provide forward sustainment

• Challenges & Considerations

- Distributed C2 integrated with larger naval forces
- Capabilities to maneuver
- Redundancy / capacity
- Sustainment
- Operate and persist in WEZ

• Endstate

- Further mitigate an adversary's sensor and shooter capability and capacity advantages and enable JMFCC to establish Maritime Supremacy



Other Concepts

• Stand In Forces

- Concept, not a unit
- Persists forward alongside allies and partners
- All domain recon / RxR
- Deterrent force, capable of (limited) EABO
- Forces already in theater; examples:
 - ARGMEUs
 - Forces conducting TSC operations
 - Select Crisis Response Forces

• Littoral Combat Forces

- Command(s) designated to coordinate efforts within the littorals
- Scalable and any service
- Aggregate capabilities and capacities that operate within the littorals under unified commands
- Examples
 - Theater Littoral Warfare Commander
 - Littoral Combat Forces / Groups
 - MLR

• Maritime RxR

- Maritime reconnaissance to help the fleet
 - Locate the enemy
 - Deliver decisive effects
- Maritime counter-reconnaissance
- Prevent enemy from locating fleet and joint force
- Provide situational awareness advantage at all points across competition continuum
- FMF manned, trained, equipped as a dedicated M-RXR force in contested littorals

• Contested Logistics

- Just in time logistics vs stockpiling
- Limited maritime capacity; “just enough”
- How to protect the sustainment force
- How to conduct sustainment within WEZs
- How to conduct sustainment while engaged
- How to conduct distributed sustainment



Naval (Joint) Integration



Naval Integration

(EWTGLANT)

Naval Integration: The arrangement and employment of naval forces and their actions, by operating and engaging as a whole, across warfighting functions to facilitate *Sea Power*.*

* *Sea Power has five essential functions: Operational Access, Sea Control Operations, Deterrence, Power Projection and Maritime Security per JP 3-32 Joint Maritime Operations dtd 8 Jun 2018 w/ Change 1, 20 Sep 2021.*

Competition – Conflict – Armed Conflict

Operational Access is the ability to project military force in contested areas with sufficient freedom of action to accomplish the mission.

Sea Control Operations is the essence of sea power and is a necessary ingredient in the successful accomplishment of all naval missions.

Deterrence influences potential adversaries not to take threatening actions.

Power Projection supports deterrence objectives and activities.

Maritime Security Operations are conducted to establish the conditions for security and protection of sovereignty in the maritime domain. *Addresses and includes Allied/Partnered Nations.*

Operational Access and Sea Control Operations are commonly measured by Maritime Supremacy, Maritime Superiority, Sea Control, and Sea Denial.

Note, only Maritime Supremacy and Superiority are defined by JP 1-02 or 3-32. Measure of Sea Control and Sea Denial are commonly understood within Joint Operations.

Naval Integration does not eliminate USMC traditional missions (JFEO, Crisis & Contingency Response, & MAGTF ops), but expands missions



Service Considerations (Culture)

(Why we see things differently)



	Marine Corps	Navy
Size / Scope	<ul style="list-style-type: none"> Small and integrated 	<ul style="list-style-type: none"> Massive and stove piped
Levels of War	<ul style="list-style-type: none"> Tactical units that perform Tactical actions integrated into Operational level Fights Tactical to “High” tactical Field or garrison 	<ul style="list-style-type: none"> Strategic assets that perform Tactical actions integrated at the Operational level Fights “High” Tactical / Operational Always on wartime footing
Capabilities & Capacities	<ul style="list-style-type: none"> Single Unit with Single Mission Capability and capacity varies Few / if any critical vulnerabilities 	<ul style="list-style-type: none"> Single Unit with Multiple Missions (MAGTFs?) Tremendous across most warfighting functions Has several critical vulnerabilities in select functions
Technology & Numbers	<ul style="list-style-type: none"> Technology and Numbers has not mattered 	<ul style="list-style-type: none"> Technology and Numbers matter
C2	<ul style="list-style-type: none"> Single command Tactically fights as a MAGTF 	<ul style="list-style-type: none"> Three C2 diagrams (COMREL, Organization, CWC) Tactically fights w/ CWC and Op Lvl as Fleet
Battlespace	<ul style="list-style-type: none"> Organized; fix & bounded, operationally small 	<ul style="list-style-type: none"> Unorganized; amorphous and massive (JWAS)
Intel	<ul style="list-style-type: none"> Tactical; nascent ISRT to support F2T2EA within a WEZ (FLOS) 	<ul style="list-style-type: none"> Tactical/Operational; lacks required capacity to operate within a WEZ
Maneuver	<ul style="list-style-type: none"> Maneuver Warfare 	<ul style="list-style-type: none"> DMO; Domains beget Domains
Fires	<ul style="list-style-type: none"> Fires support Maneuver 	<ul style="list-style-type: none"> Maneuver supports Fires
Sustainment	<ul style="list-style-type: none"> Operationally an Army problem; few tactical challenges 	<ul style="list-style-type: none"> Difficult; many critical vulnerabilities
Force Pro	<ul style="list-style-type: none"> Through Force (combined arms, firepower, etc.) 	<ul style="list-style-type: none"> Through other warfighting functions
Information	<ul style="list-style-type: none"> Less capability, but better reach back 	<ul style="list-style-type: none"> Better capability, but more authority issues “red tape”

Integration Across functions (Summary)



Command and Control

- CWC
- FMF / FLEET MOC
- B2C2WG

Intelligence

- Sensor EAB (GATOR, SIGINT)
- Reconnaissance and Counter Reconnaissance teams
- Support EABs to facilitate other capabilities (MH-60R FARPs)
- Use of naval platforms for insertion and maneuver
- “Pulse” assets into area of operations for temporal RMP to support larger naval operations
- RXR

Fires

- JVAS – kill boxes at sea; Marine Corps understands this, but lacks requisite capability and capacity to execute effectively
- USMC FSCC like capability within MOCs and at Strike Group Levels to bring USMC fires in to support Fleets and naval fires to support USMC units ashore

Force Protection:

- Active and Passive jamming and deception
- Deception
- USMC needs to support CWC functions with right capabilities

Maneuver

- Pulse Operations
 - Series of raids
- Maximize usage of insert platforms
- Non-standard insert methods
 - Subs
- Aerial operations
- RXR
- Extend the reach of capabilities
 - FARPs
 - Lily Pad Operations

Sustainment

- Marine Corps can over extend itself
- LOCE and EABO will exacerbate current naval sustainment capacity
- Requires maximum use and decentralization of”
 - FARPs
 - Expeditionary resupply
 - Use of amphibious assault ships as expeditionary logistics ships or intra theater lift

Information

- TENTH Fleet has great capability and capacity; however greater lead times and layers to work thru
- MIG Dets have reach back to MCIOC, MARFORCYBER, etc. that flattens response time



Command and Control



Command and Control

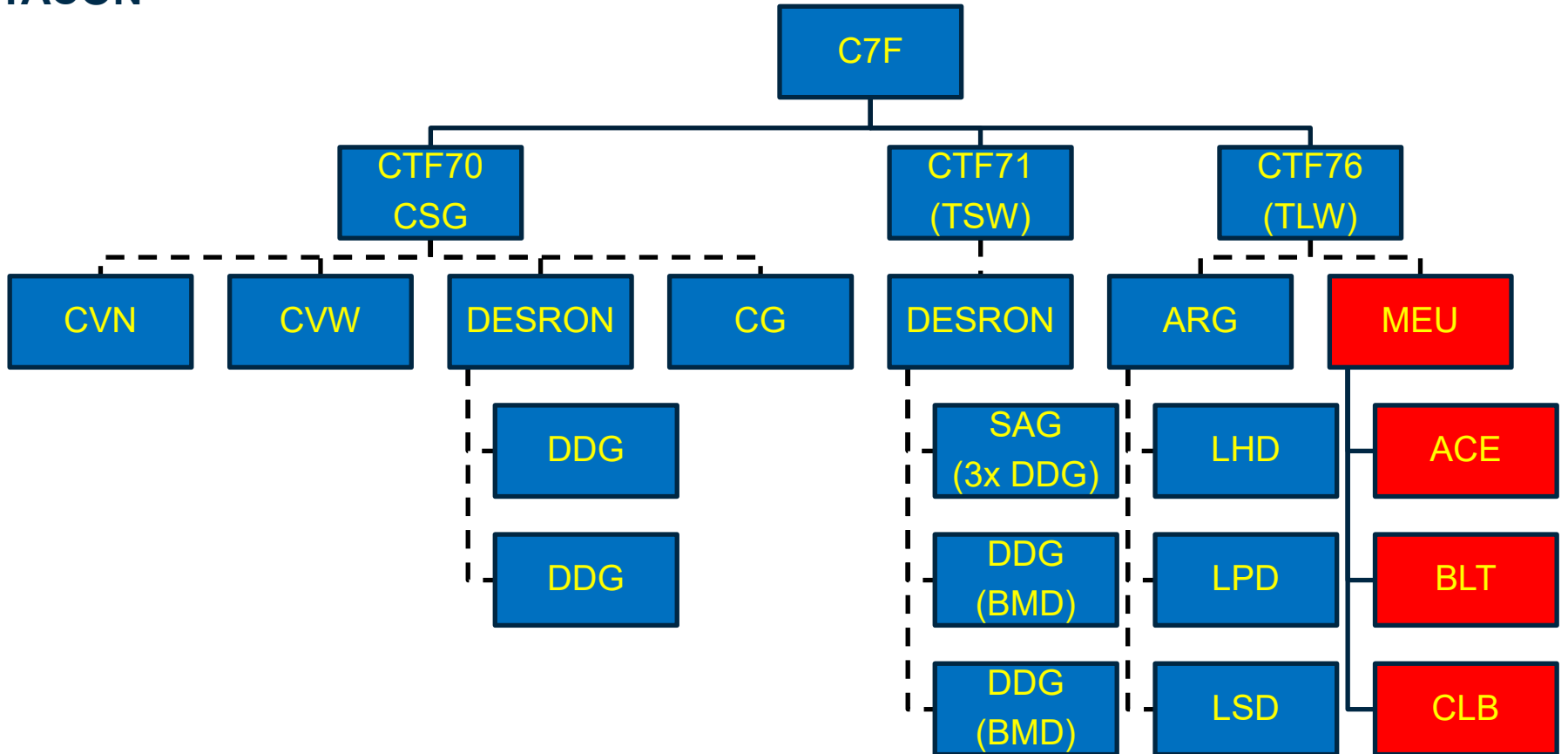
- USN Challenges
 - Distances
 - Denied operating environment
- USMC Challenges
 - Not historically tied into naval C2 structures
 - Appropriate systems to communicate
- Solutions (DMO)
 - Integrated command relationships
 - Interoperable C2 systems
 - Ability to rapidly collect, share and disseminate information
- How to integrate?
 - LNOs
 - Integrated commands – Fleet/MEF, CTFs, Littoral Combat Teams
 - Integrated B2C2WGs (Fleet Maritime Operations Center (MOC) and MEF Operations Centers (MOC))
 - CWC integration



Three C2 – #1 Command Relationships



OPCON ———
TACON - - - -



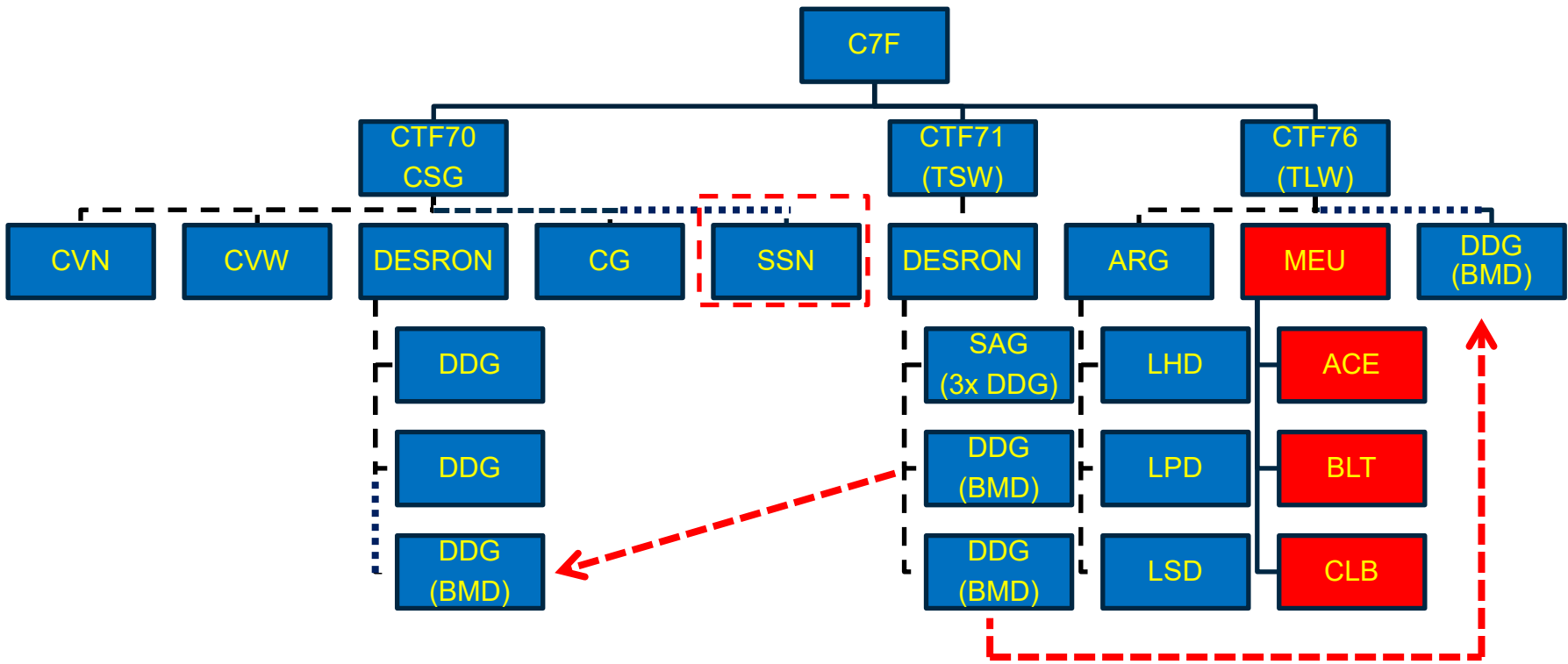


Three C2 – #2 Task Organization

OPCON ———

TACON - - - -

“Co-Locate”





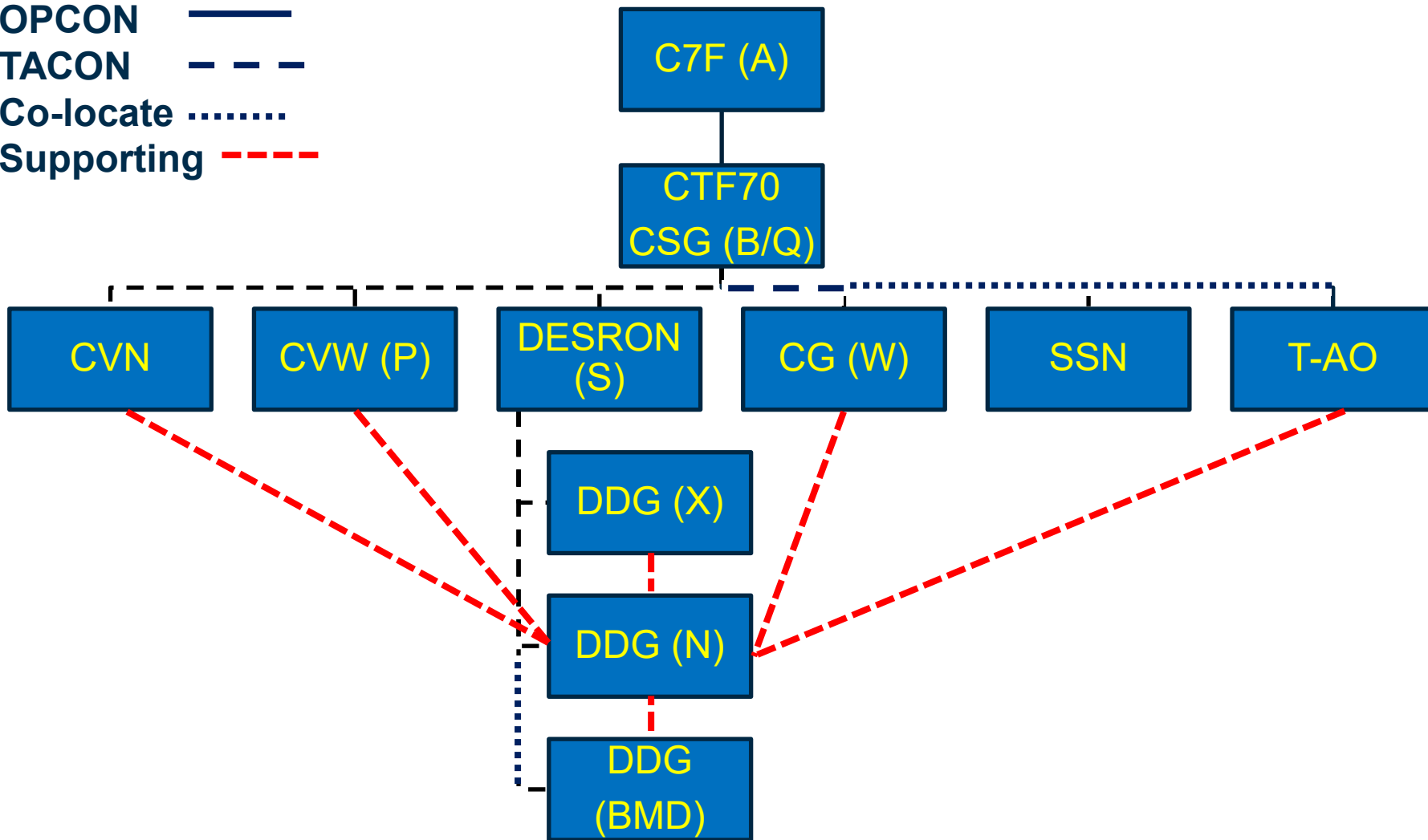
Three C2 – #3 CWC

OPCON ———

TACON - - - -

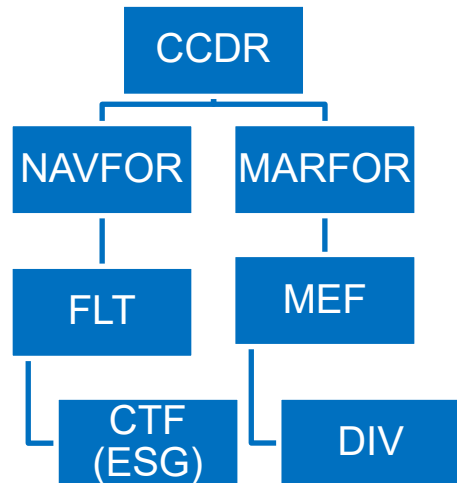
Co-locate

Supporting - - - -



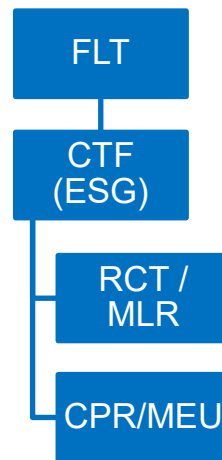


Integrated Command and Control



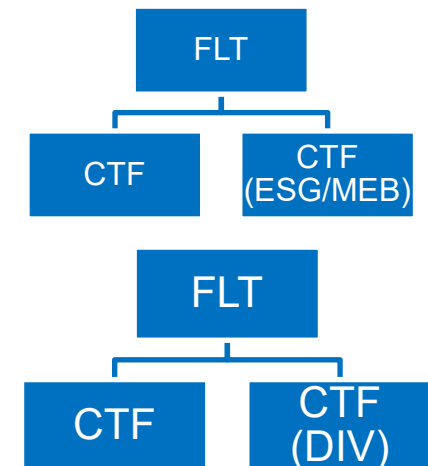
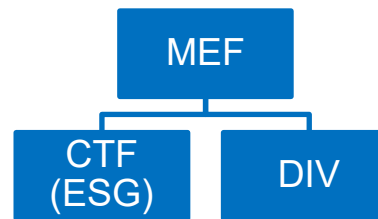
SUPPORTING – SUPPORTED

- Traditional
- MARFORPAC and COM have a FMF relationship with Fleets



OPCON/TACON

- MEUs already doing this
- Unit attached up under FLT, MEF, or CTF



INTEGRATED “Littoral Combat Force”

- Fifth FLEET CTF51/5
- Seventh FLEET CTF76/3
- Sixth FLEET CTF61/2
- EX STEEL KNIGHT

Challenges: Relationships and Communications Pathways

- MOC as TOP COP and pushing/pulling of information
- Global Command and Control System (GCCS) vs. Command and Control Personal Computer (C2PC)
- LINK16
- Commands need to figure out how to push information that matters



4 Composite Warfare Commander

The Basics (NWP 3-56)

- Composite Warfare (CW) is a tactical control system to coordinate assets and capabilities (specifically ISRT and fires) across a tactical formation to synchronize effects within specific domains (air, surface, subsurface, and information)
- Warfare commanders control assigned responsibilities for designated warfare areas and domains (next slide)
- Warfare commanders are assigned to C2 capabilities within their designated domain
- Warfare commanders are not assigned to C2 a ship or unit; however, often ships (and thus the ship's commander) are assigned as warfare commanders because of a ship's capabilities
- CW exercise control thru supporting relationship, NOT command relationships
- CW does not replace command authority or relationships of OPCON, TACON, ADCON, or attached



Domains

- **Primary Warfare Commander responsibilities and domains**

Warfare Area	CS	Domain
Air & Missile Defense Commander (AMDC)	W	Air
Sea Combatant Commander (SCC)	Z	Surface / Subsurface
Information Operations Warfare Commander (IWC)	Q	Information / Cyber / Space / EMS
Strike Warfare Commander (STWC)	P	Ground (fires)
Expeditionary Warfare Commander (EWC)*	M	Ground (operations)

- **There are several other ancillary warfare responsibilities such as screening, BMD, etc.**
- **EWC is not well defined in NWP 3-56. TACMEMO forthcoming.**



USMC Perceptions of CW

- For USMC, CW is synchronizing different fires capabilities for desired effects across multiple domains
- Confusion and concern by Marine Corps when there is mention of a unit being assigned as Strike (P) or Expeditionary (M) that could subordinate a unit to a equal or lessor rank (B) and/or lacks requisite experience / training
- Established organizations, relationships, and TTPS already exist that define how support is provided between naval units:
 - CATF-CLF, Air Planning Boards / Air Plans, ATO Cycle, SACC
- Because established organizations, relationships, and TTPS already exist, some feel there is no requirement for the Marine Corps to integrate into CW
- Commonality
 - Marine Corps has tenants of CW since the establishment of the MAGTF
 - Supporting and control relationships exist between MAGTF subordinate elements to coordinate effects:
 - Div FSCC (P) and MAW DASC (W) integration
 - MIG (Q) support to Div, MAW, MLG
 - Artillery tactical mission supporting relationships

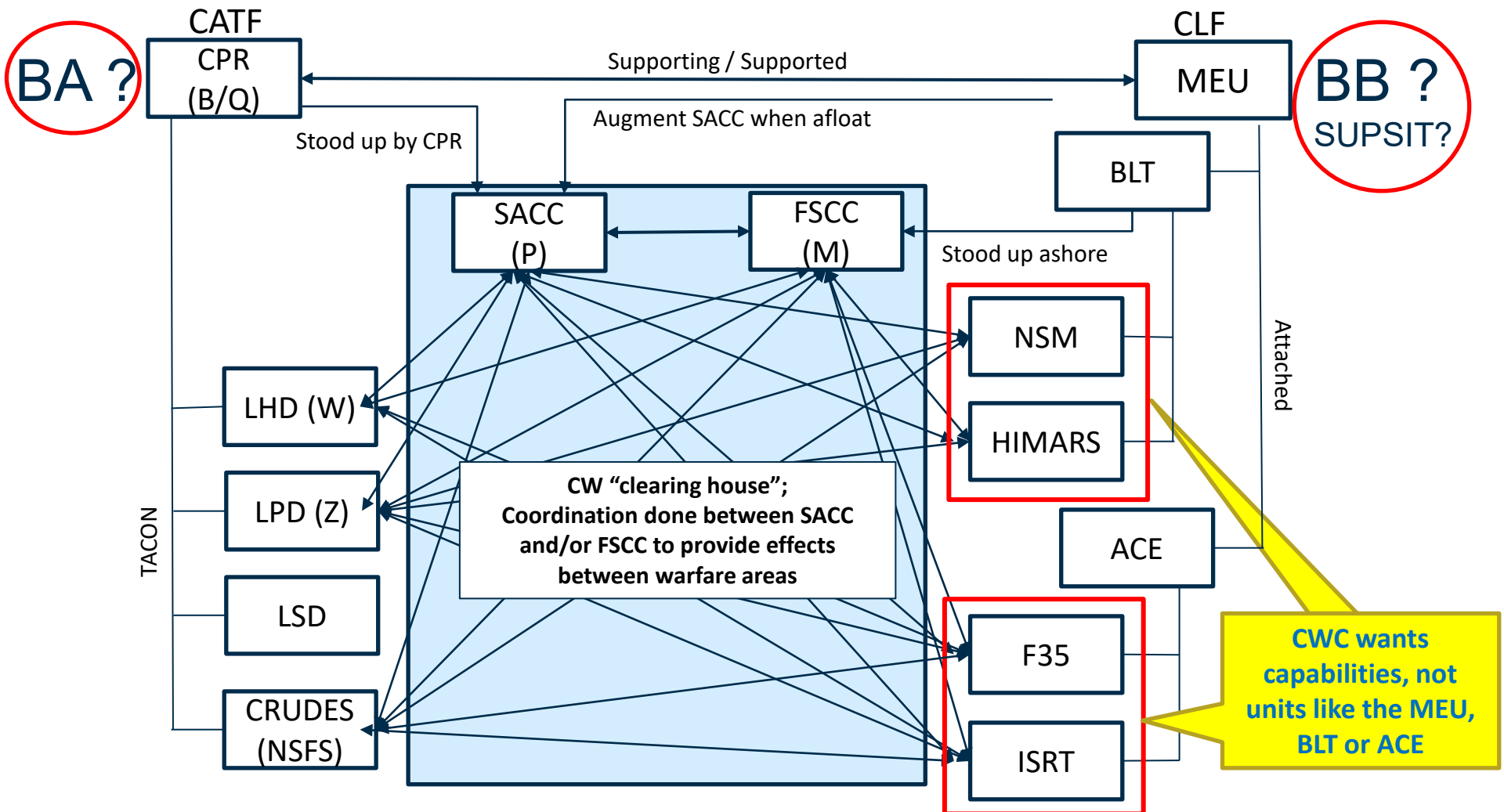




USMC Considerations

- Should the Marine Corps integrate?
- How should the Marine Corps integrate?
- What needs to be integrated?

ARGMEU Example



Can we have two "Bravos"? CWC impacts how the Navy fights (organizes) operationally



Other Potential Examples

- ANGLICO to bring / pull capabilities between “Separate, but integrated”
 - BDE attached to Fleet MOC
 - SALT attached to Strike Group (CSG or ESG) or who ever is “B”
 - FCT attached to USMC units to bring USN capabilities to units
- SUPSIT relationships
 - Two “B” and establish a SUPSIT between them
 - CPR is B and MEU is B and a SUPSIT relationship is established between them
 - CSGs and ESGs traditionally execute this during ESF Operations
- MLR integration / RXR
 - Let MLR capabilities operate within already established CWCs structures
 - Select capabilities attached TACON to naval formations (CTFs, CTGs, CSGs, etc.)
 - MLR in placed in direct support to transiting naval formations or persistence formations operating IVO MLR and/or other MLR like capabilities



Intelligence

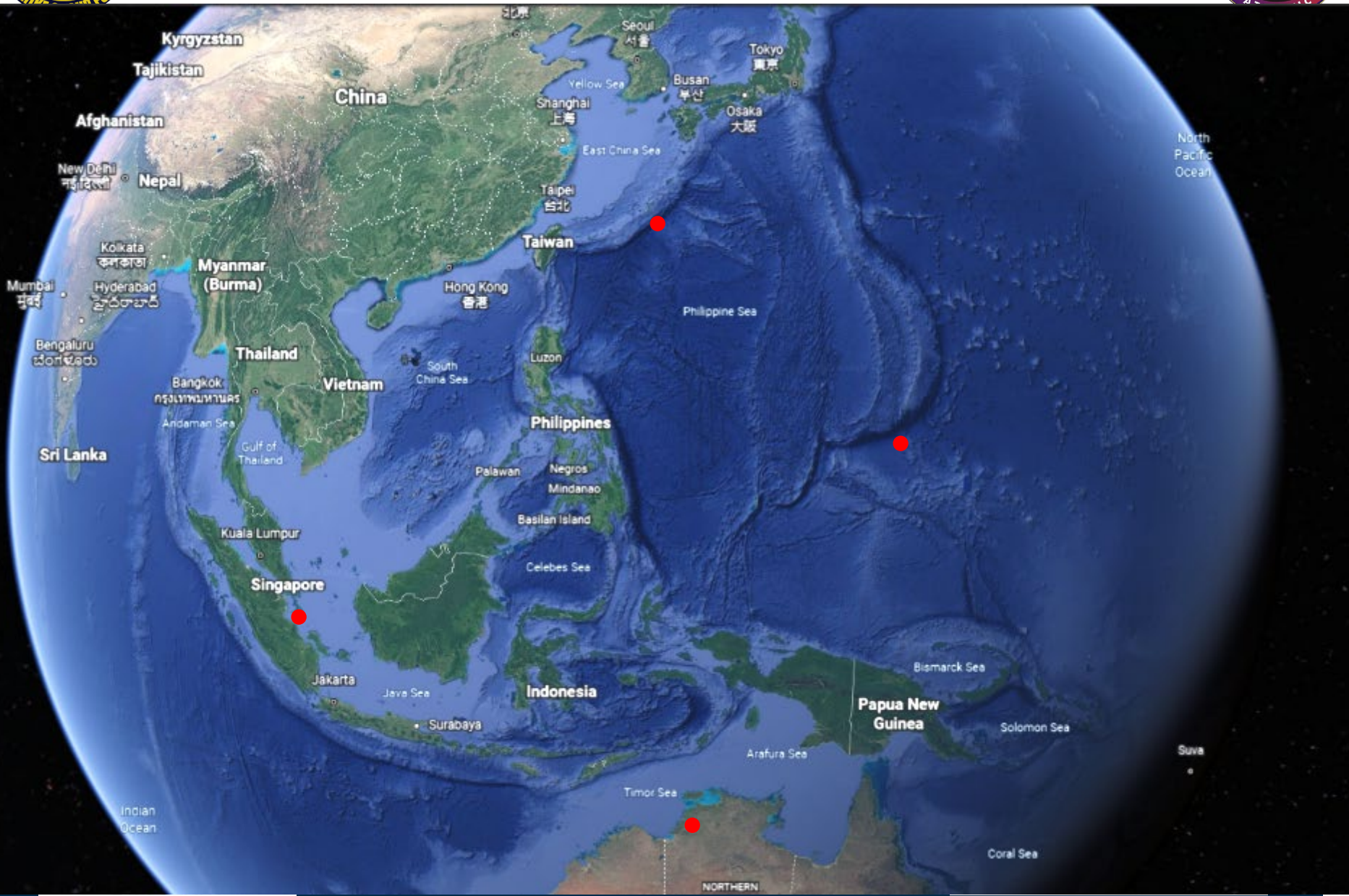


Intel Integration

- USN Challenges:
 - Lack of capacity
 - Who's responsible for coordinating ISR
 - Who's responsible for/and how to conduct ASuW/ASW ISR
- USMC Challenges
 - Lack of capability; but developing it
 - Operational reach
- Solutions
 - MOC TOP COP; flattened C2 structure for intel and fires
 - Persistent ISRT to enable maritime domain awareness (MDA) within WEZ
 - National asset integration
 - MISR / MISR-A
- How to integrate
 - SIF (TSC / MEU operations / Gray Zone operations)
 - RXR
 - Sensor EABs (radars, unmanned systems, etc.) ISO "W" and "Z" (FLOS)
 - Integrated capabilities of MAGTF into MOC/CWC structures at right levels
 - MEF to MOC
 - DIV / MAW / MLG to CTFs
 - CE: OIE (MISO, Cyber, SIGINT/EW)
 - GCE: Air and Surface Radar
 - ACE: Radar, sonobouys, SIGINT/EW
 - LCE: HUMINT at establish A/SPOE/Ds & HADR/FHA



Forward Line of Sensors vs Forward Line of Troops





Maneuver Integration



Maneuver

- USN Challenges

- Where to operate?
 - Outside the WEZ vs Inside the WEZ
 - Is inside or outside really harder?
- Getting ISRT capabilities in range

- USMC Challenges

- No organic lift outside aerial capabilities (KC130, MV22, CH53); ranges impact lift and capacity.
- Dependent on amphib lift; which is currently held at risk

- Solutions (DMO)

- Pulse Operations; Series of Raids
- EABO / LOCE (terrain masking aka camouflage)
- Maximize use of insert platforms
 - Distributed and massed convergence
 - Non-standard methods
- Aerial Operations

- How to integrate?

- USMC to support and enable USN maneuver by generating force protection to reduce risk
 - ISR/FLOS, deception, information,
- Extend reach or increase sortie generation; FARP's & Lilly Pad Operations
- Integrated C2 at right levels to ensure support is executed



Distributed Maritime Operations



Integration of Platforms
Distribution of Forces
Maneuver within all Domains

To:

Isolate
Dislocate
Destroy
Disintegrate

- *What is the conceptual employment of amphibious, expeditionary and Marine Forces within the domain begets domains theory of the fight?*
- *What is the conceptual employment in a global conflict?*



Fires



Fires Integration

• USN Challenges

- Ability to penetrate A2D2 due to integrated IAD and surface defense
- What does it take to penetrate a Level I SAG?
- Potential Capacity Issues within USN “War of Numbers (VLS tubes / munitions)”

• USMC Challenges

- Limited capacity and capability; must be integrated; Can a NMESIS Btry alone penetrate an enemy Level I SAG?
- Must integrate not just across naval force, but also across the Joint Force
- Lack of Maneuver to support Fires

• Solutions

- Lower end targets
- Risk worthy or non-critical targets (on the fringes)
- Non-standard missions (SLOC security, interdiction/MIO)
- Integrate

• How to integrate?

- JWAS
- Bring fires to bear from USMC to USN
- Can the MLR do this? MLR designed to deliver not bring
- New training, organizations (B2C2WG integration), and potentially MOS



Fires Integration





Sustainment



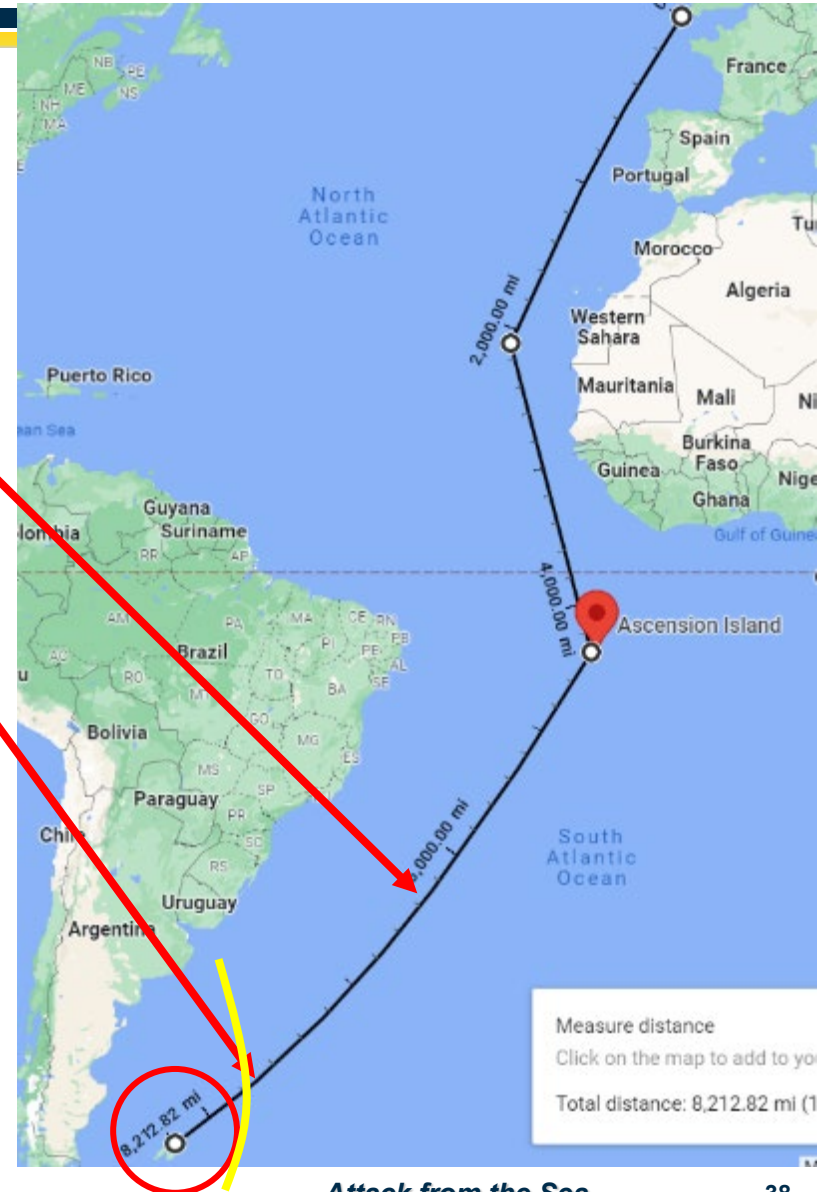
Sustainment Integration

- USN Challenges
 - Lack of capacity in T-class ships to support DMO = CC and CV
 - Surface connector shortfalls
- USMC Challenges
 - Lack current sustainment capability
 - Surface connector shortfalls
- Solutions:
 - Next Gen Logistics Ships (NGLS); smaller than current T-class ships
 - LSM; however are #s, speed, lift capacity, and survivability enough for operating environment?
- How to Integrate?
 - Capabilities
 - L-Class Expeditionary Logistical Ships
 - NGLS to LSM/LAW
 - Sustainment “in a box” / expeditionary capabilities (cranes, resupply, ports, etc.)
 - Unmanned systems
 - Sustainment Operations
 - Echeloning and force protection of sustainment locations
 - Expanded hub / spoke model
 - Expeditionary staging bases
 - Logistical EABs – FARPs, Resupply; are they realistic?
 - Integration of USMC RW/FW (MV-22/KC130)



UK Operating Environment in Falklands

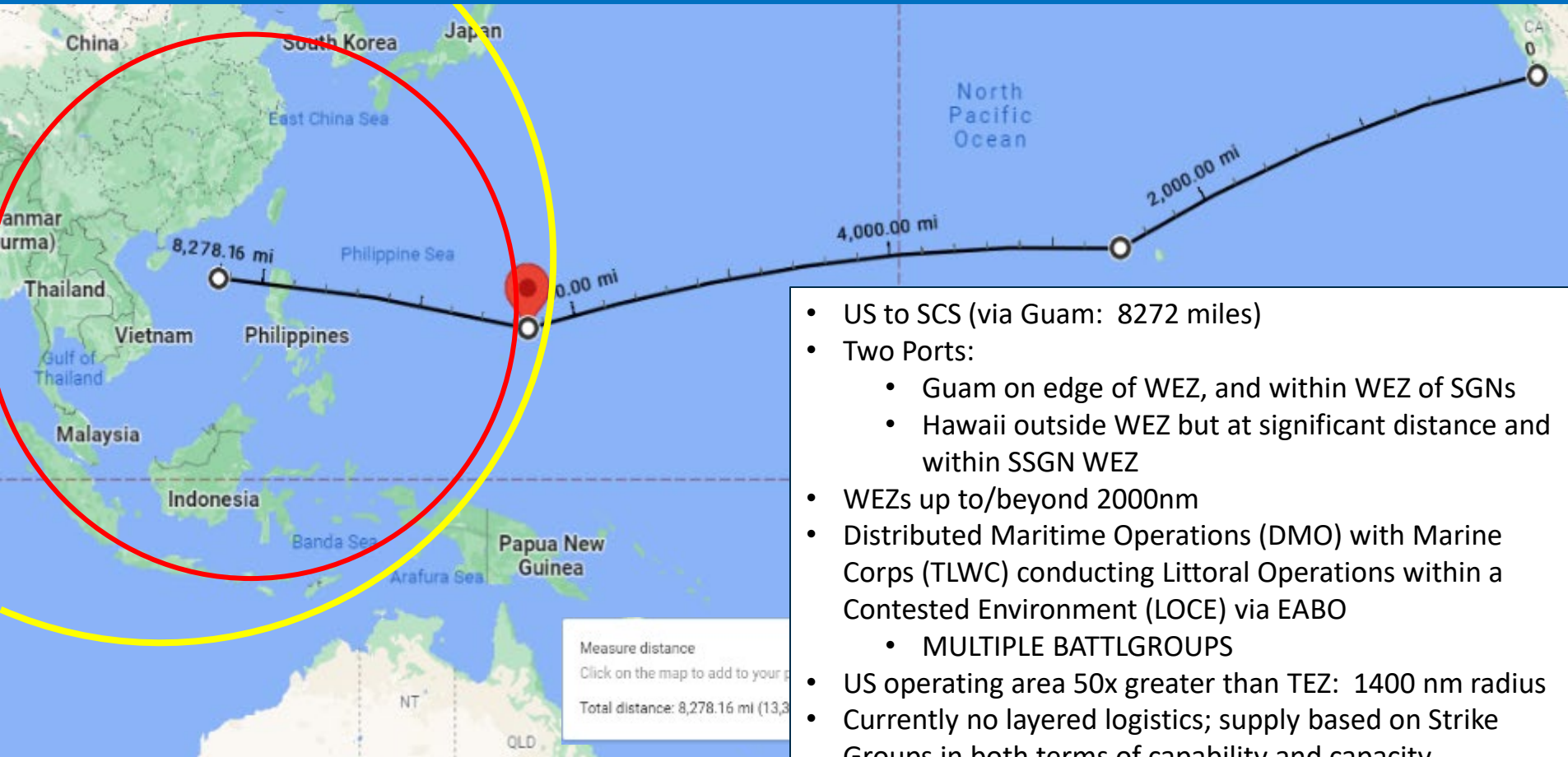
- UK to Falklands via Ascension Island: 8212 miles
- Single port: Ascension Island; not cargo container compatible
- UK Total Exclusion Zone (TEZ) (Operating Area): 200 nm radius around Falklands
- Argentine WEZ on East edge of TEZ
- Consolidation Area halfway between Ascension Island and Falklands to transfer supplies from large to mid/small vessels
- TRALA (aka RAS Track) on edge of TEZ (WEZ)
- SINGLE BATTLE GROUP w/ 2:1 Supply to Combat ship ratio:
 - 43 combat ships
 - 84 supply ships (30 Auxiliary (MSC/RFF) and 54 others (MARAD))





PACFLT Operating Environment and Challenges

How does a Naval Force support INDOPACOM like the UK did in the Falkland's within a contested logistics environment?



- US to SCS (via Guam: 8272 miles)
- Two Ports:
 - Guam on edge of WEZ, and within WEZ of SGNs
 - Hawaii outside WEZ but at significant distance and within SSGN WEZ
- WEZs up to/beyond 2000nm
- Distributed Maritime Operations (DMO) with Marine Corps (TLWC) conducting Littoral Operations within a Contested Environment (LOCE) via EABO
 - MULTIPLE BATTLGROUPS
- US operating area 50x greater than TEZ: 1400 nm radius
- Currently no layered logistics; supply based on Strike Groups in both terms of capability and capacity
- RAS Tracks would be within WEZs
- USN has approx. 1:2.8 Combat Ship to Supply Ship Ratio



Force Protection & Information



Force Protection & Information Integration



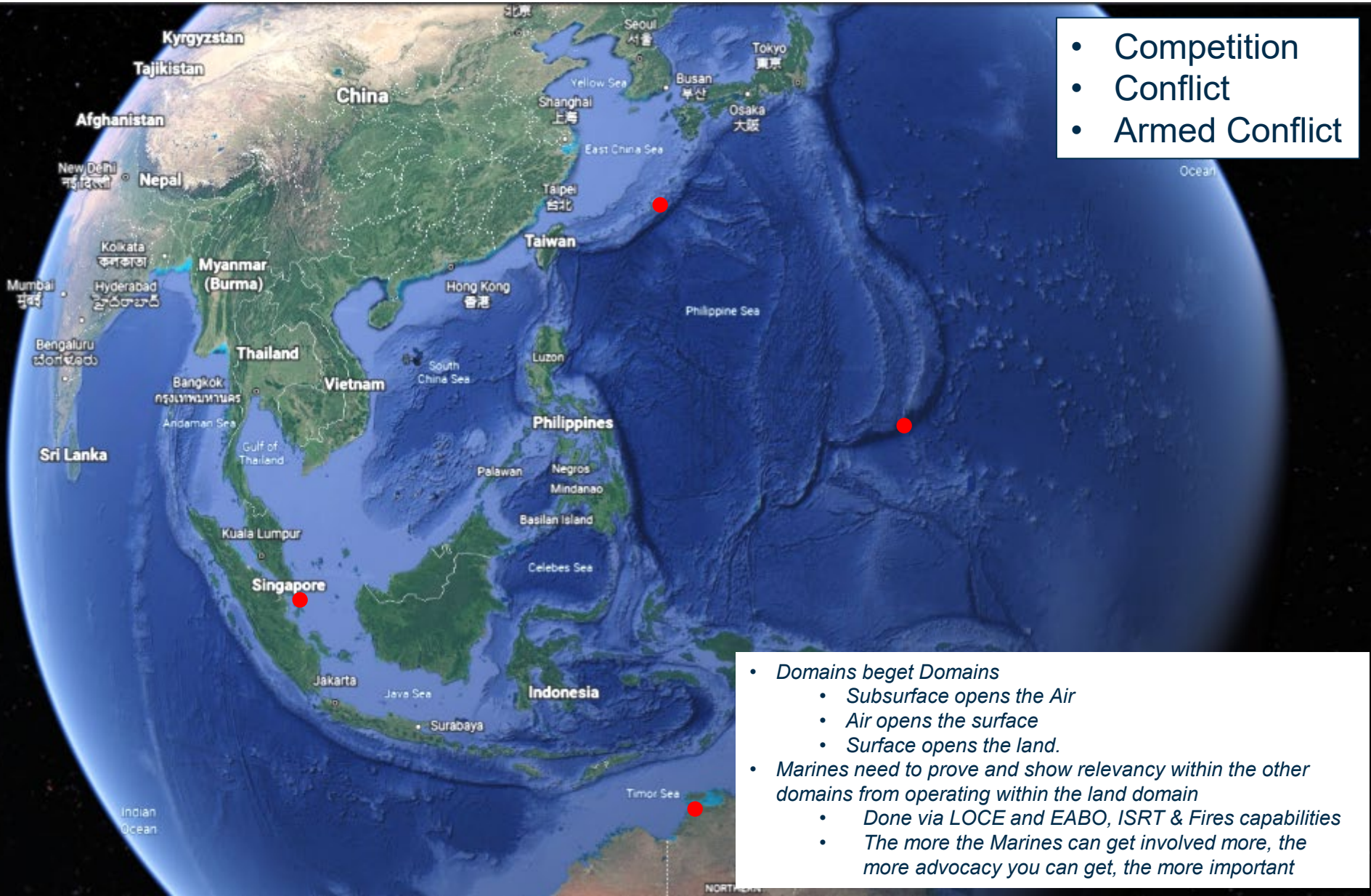
- USN Challenges
 - Enemy MISR capabilities
 - USMC tends to compromise USN
 - Synchronization of operations
- USMC Challenges
 - Lack of understanding; firepower has been force protection
 - Nascent experience and capabilities
- Solutions:
 - EABO
 - All types make a difference (sensor, sustainment, deception, fires, etc.); they enable a greater naval force by distracting/taking away enemy attention
 - “Risk Worthy Forces”
 - MIG – flatter support / reach back
 - 10th FLT – greater capacity and capacity
 - Hide in the open
- How to Integrate?
 - Must understand and embrace EMCON (*Carrier / Gator / EAB Hunt series of games*)
 - ACE biggest violator
 - GCE and LCE must operate ashore managing spectrums
 - Exercised at MWX and FBP
 - Deception Operations
 - MIG integration of OIE capabilities; bring to smaller CTF / CTGs and provide reach back support for national level assets

With so much uncertainty as to whether or not we can achieve FD2030 and if it will be effective, is it the best ever information warfare op?

Theory of the Fight (Putting it all together)



- Competition
- Conflict
- Armed Conflict



- *Domains beget Domains*
 - *Subsurface opens the Air*
 - *Air opens the surface*
 - *Surface opens the land.*
- *Marines need to prove and show relevancy within the other domains from operating within the land domain*
 - *Done via LOCE and EABO, ISRT & Fires capabilities*
 - *The more the Marines can get involved more, the more advocacy you can get, the more important*





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Here?



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Questions?