




Missions and Means Framework Tutorial

March 1, 2004

Agenda

- 
- **Introduction**
 - **ACSIS Example**
 - **Missions & Means Framework**
 - **Transformation**

Context

- **A Blizzard of Guidance:**

- **Rumsfeld, “Transformation Planning Guidance”, April 2003**
- **Wolfowitz, “Operation of the Defense Acquisition System”, DoD 5000.2, May 2003**
- **Wolfowitz, “Department of Defense Readiness Reporting System”, DoD Directive 7730.65, June 2003**
- **Myers, “Joint Capabilities Integration and Development System”, CJCSI 3170.01C, June 2003**
- **Wolfowitz, “DoD Architecture Framework”, Version 1, coordination draft DoD Instruction 8800.x, March 2003**
- **Daly, Miller, Seglie, and Wauer, “The Test and Evaluation Master Plan, an Operational Overview”, ITEA Journal, September/October 2003.**
- **Hollis and Bolton, “Future Combat Systems and Complementary Systems Coordination”, Department of the Army, November 2003.**

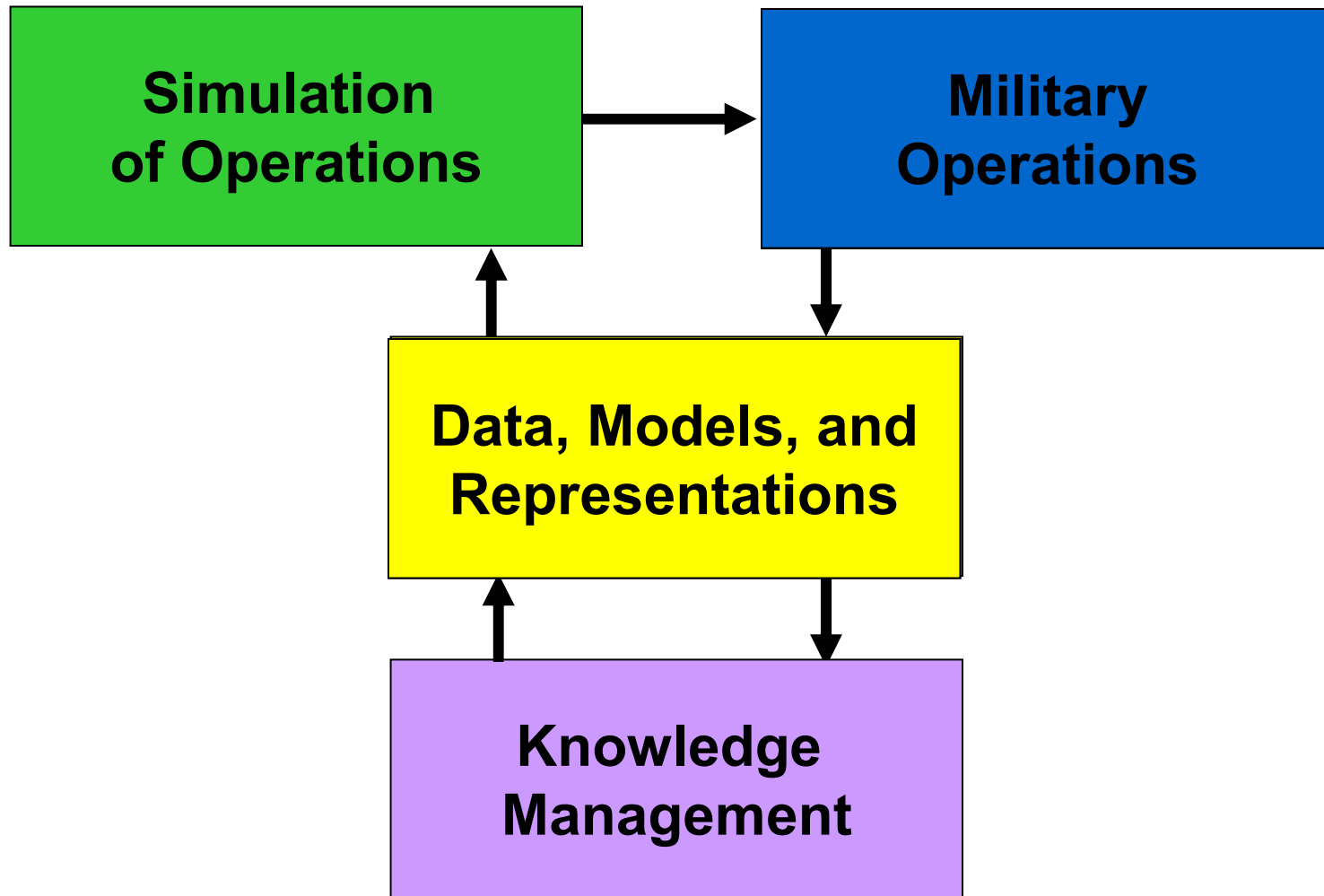
***** Opinion *****

- **In the post-9/11 World:**
 - **The United States needs the capability to**
 - **Counter new, emerging concepts and threats while**
 - **Retaining the overmatch to deter existing, conventional capabilities.**
 - **Relative to extant U.S. warfighting capabilities, this requires:**
 - **Strategic agility in hours/days, not weeks/months;**
 - **Joint netted lethality in close combat; and**
 - **Combined and noncombatant survivability in complex terrain.**
 - **To achieve national security objectives over the long haul:**
 - **The suitability of total DOTMLPF solutions (life-cycle ownership) and**
 - **The time to field capabilities must improve.**

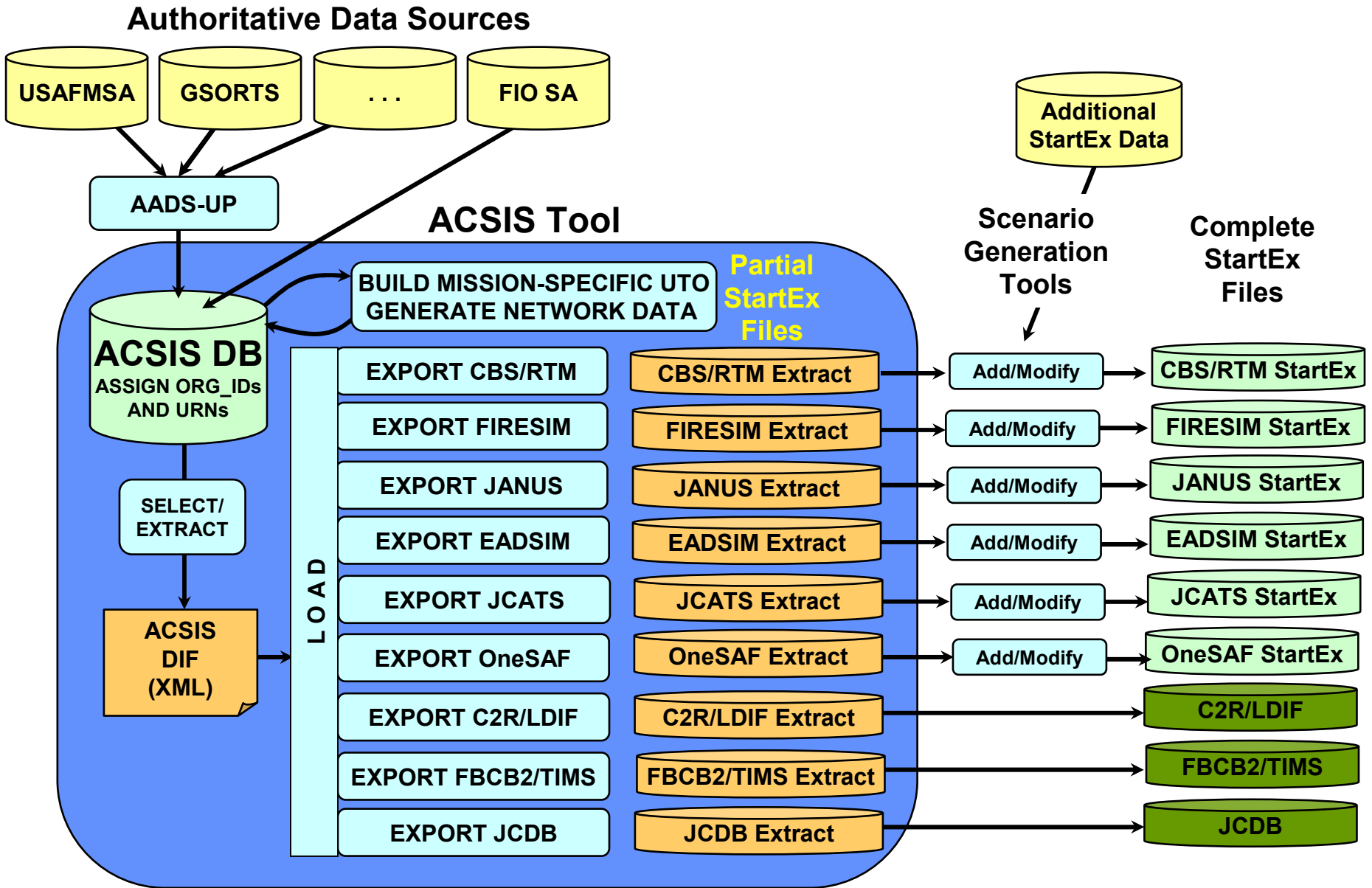
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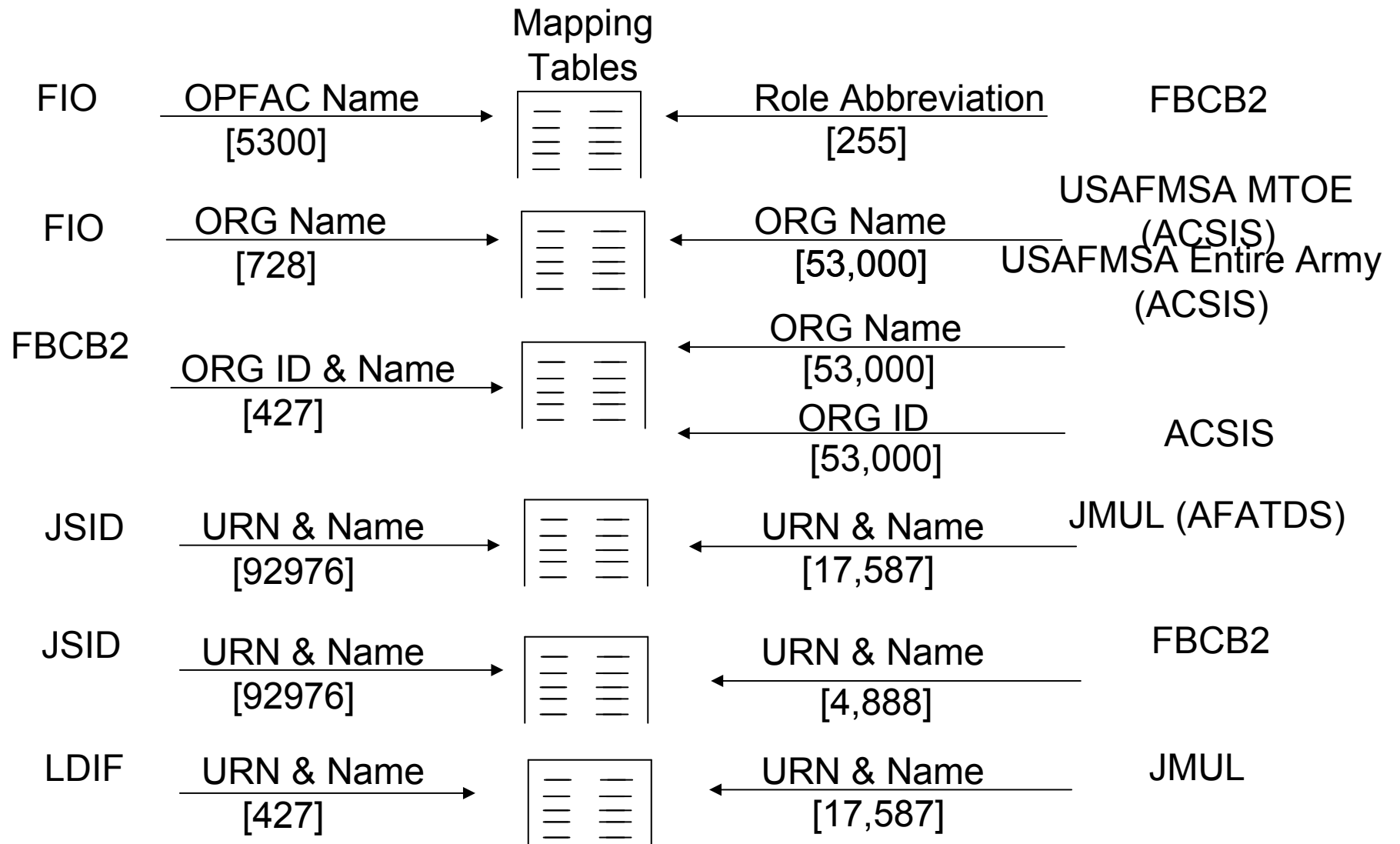
Information-Intensive Warfare, Digitization of the Battle blurs distinctions between simulations and operations



ACISIS[§] Architecture



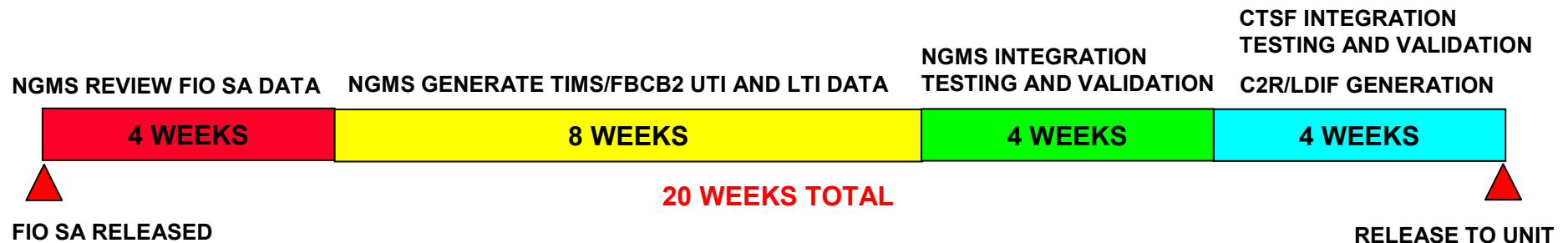
Interoperability Examples (1st CAV)



- Notes:**
- Not a do once use many
 - Eliminate duplication, etc.

Improved Integration and Interoperability between C4I and Simulations

Current data product generation process without ACSIS or FBCB2/TOC Planner:



Process with ACSIS Phase I, TIMS/AC SIS interface, and FBCB2 manual process:



PM FBCB2 and TIMS early involvement with FIO, G-6, USAFMSA, and the unit at the SA Material Review Board (MRB). Shifts weeks of review/fixes to before the SA release.

Process with ACSIS Phase II and FBCB2/TOC Planner Integration:



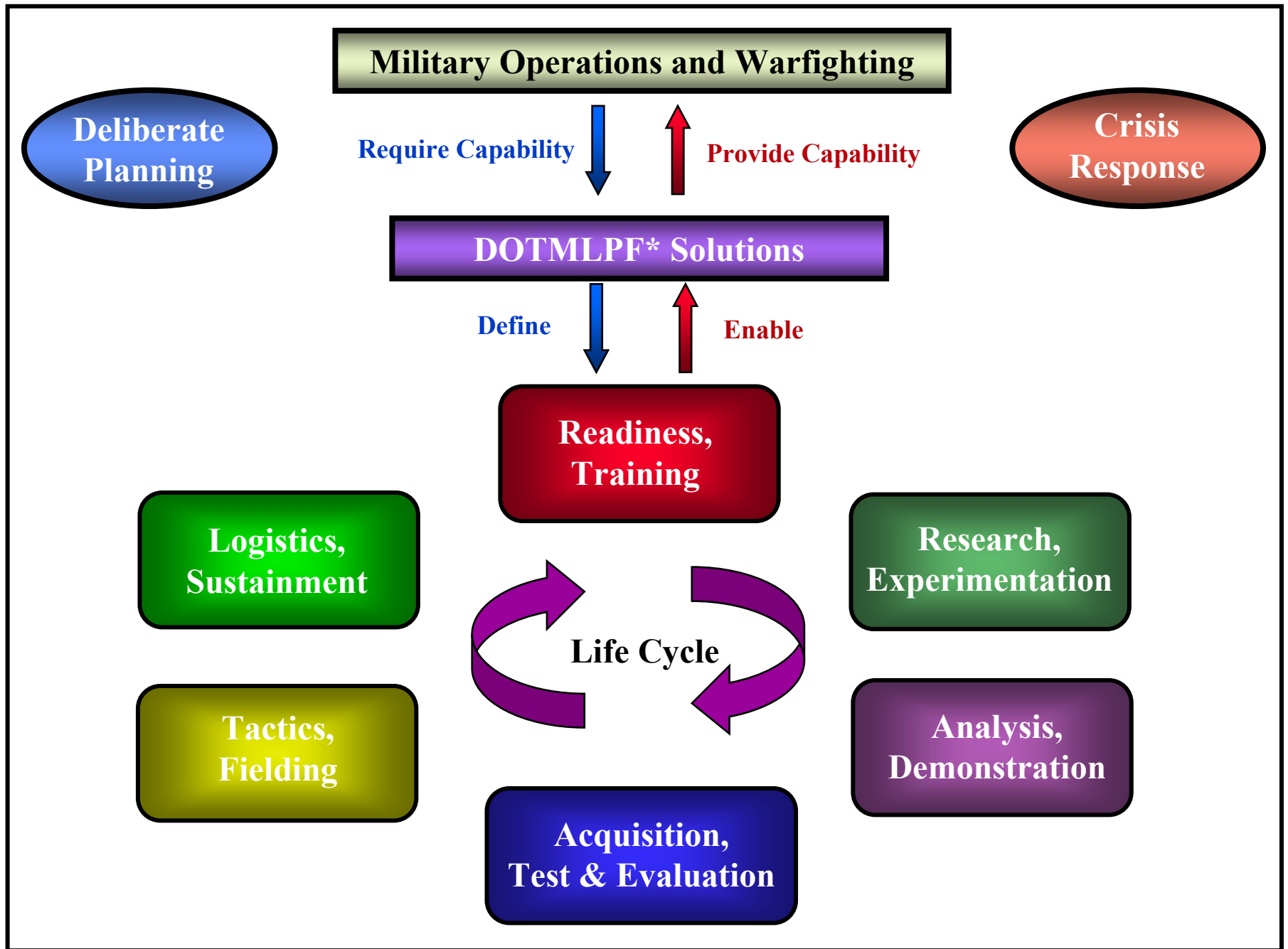
- Process improvement- reduce time and cost.
- Improved coordination and synchronization.
- Data harmonization in a single-source authoritative database.
- Improved feedback to authoritative data sources.
- Automation to enforce rules and data integrity- quality data products.
- Less re-work time and cost.
- More responsive to ad-hoc changes.

Agenda

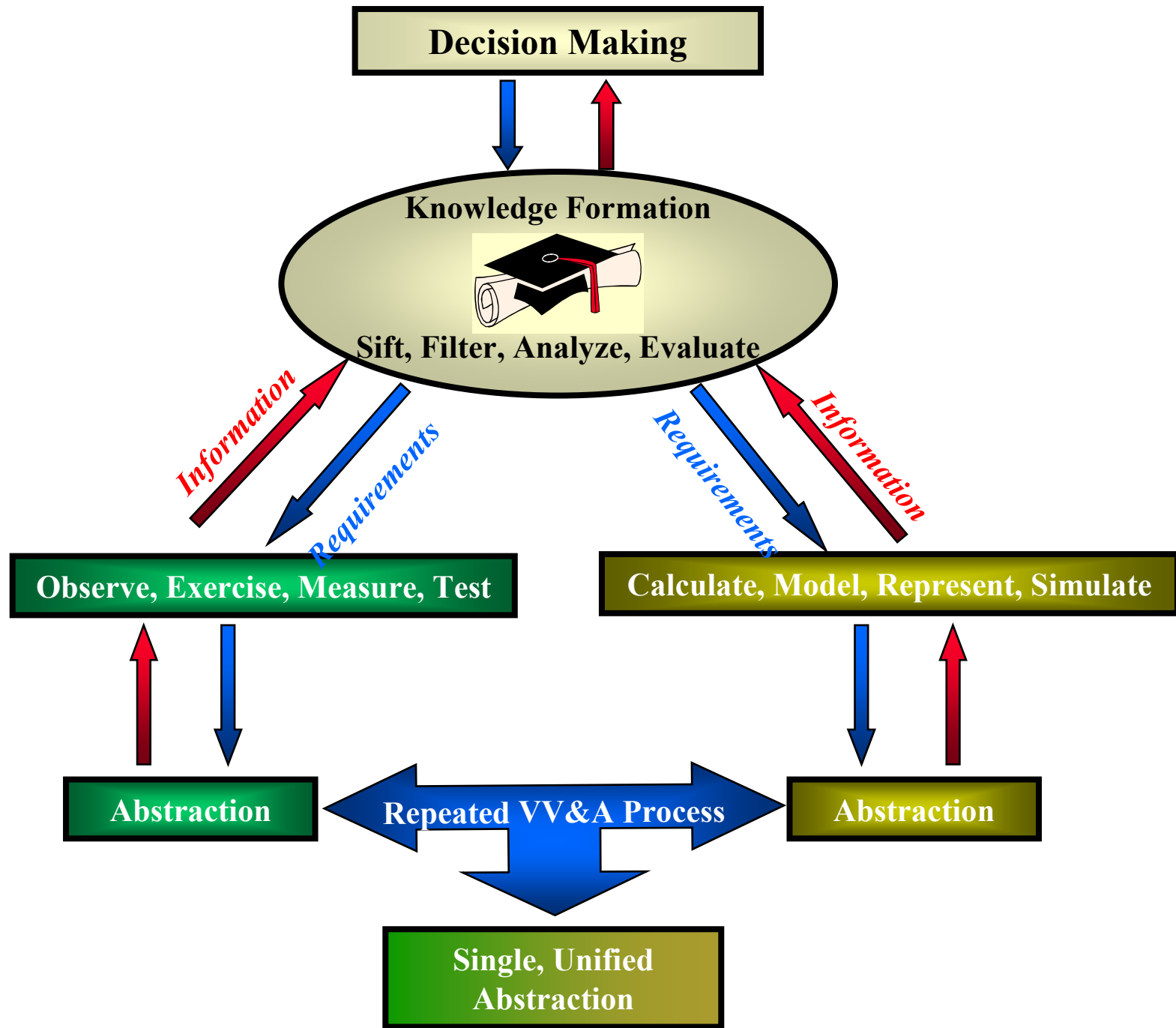
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 - **Discussion**

Key Concepts

- **The Principle of Late Binding is a fundamental element of the transformed end-state.**
- **Integration Readiness is fundamental to Late Binding in Joint Operational Concepts**
- **The Missions and Means Framework (MMF) embraces Late Binding to specify the warfighter's view of the battle space.**
- **Executable Mission Content (EMC) is a key enabler to conceive and execute transformation.**



* DOTMLPF: Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities



MMF Status Summary

Accomplishments:

- **TRADOC ADCST-W Collective Training**
Directorate (CTD): Task decomposition for CFLCC Battle Drills
- **Army C4ISR and Simulation Initialization System**
Interoperable data loads for Operations Enduring and Iraqi Freedom
- **Army Objective Force:**
Mission set decomposition in FCS O&O/ORD, ATEC adoption
- **Joint Strike Fighter:**
JSF Authoritative Modeling Information System, Authoritative Sources DB
- **DoD Architecture Framework:**
Core Architecture Data Model, Data Architecture Repository Sys, Visual Simulation Objects

In Progress:

- **Joint Staff:**
5026 mission decomposition, Joint Training Information System acquisition baseline
- **Strategic Analysis:**
MORS Data Workshop, OSD/Policy workshop, JMEM and TMAP in Joint Data System
- **Mission and Means Framework for Executable Mission Content:**
Paired Comparison Tests, UA-MBL Experimentation, NAVAIR/AMC MOA, JFT&E

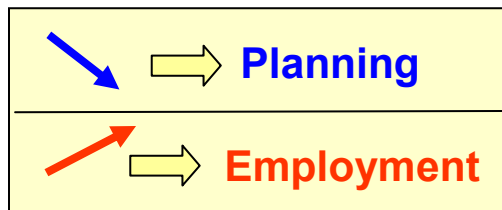
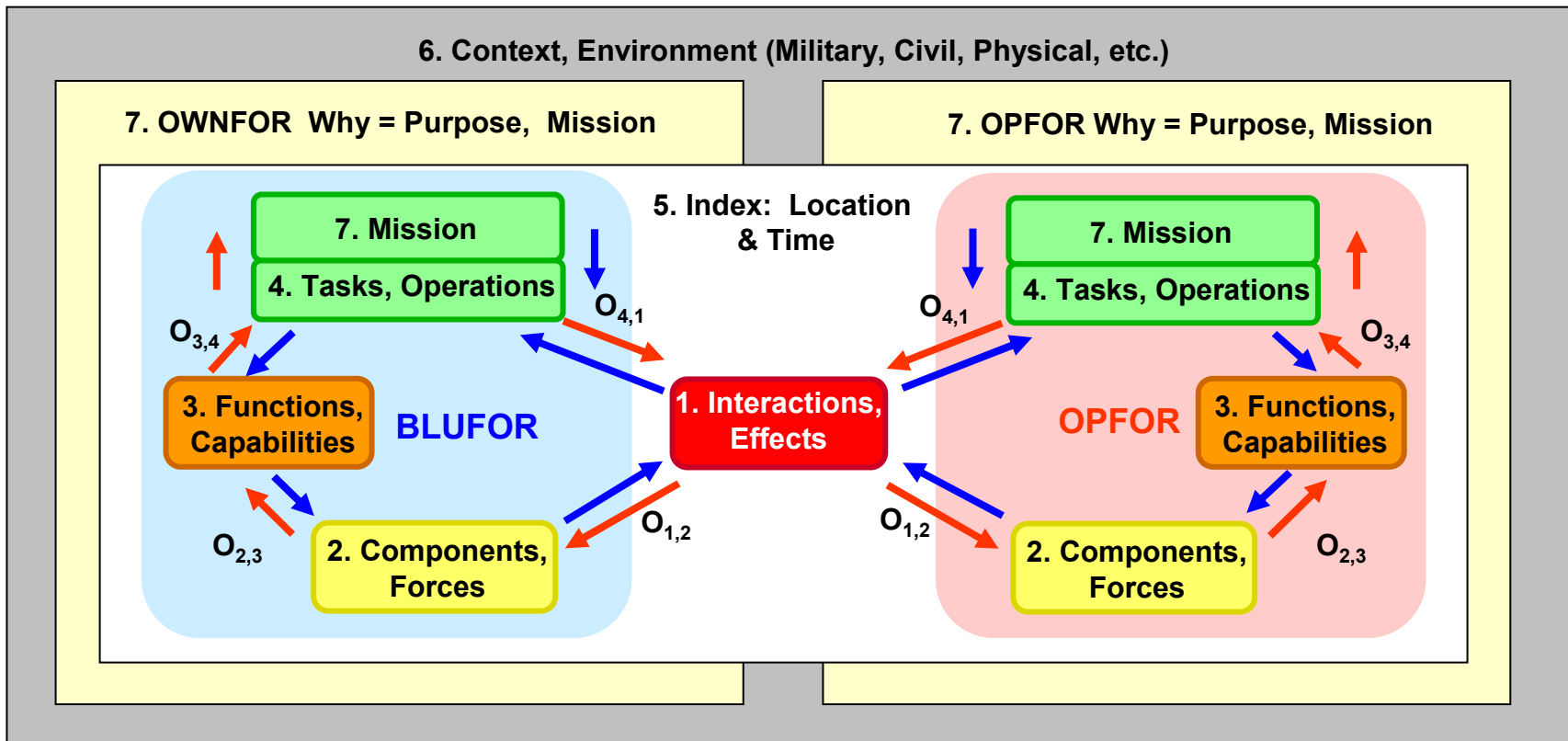
To Make It Work ...Need Five Things

- 1. Composable Framework and supporting Procedures**
- 2. Critical Mass of End-User Content and supporting Access**
- 3. Business Model for Life-Cycle Sustainment and supporting Program Elements**
- 4. Tools, Utilities and supporting Standards**
- 5. Education, Training, and Certification**

Missions and Means Framework

11 Fundamental Elements:

Seven Levels, Four Operators



Missions and Means Framework

11 Fundamental Elements:

Seven Levels, Four Operators

7. OWNFOR Why = Purpose, Mission

7. OPFOR Why = Purpose, Mission

7. Why, Wherefore, to What End

Missions and Means Framework

11 Fundamental Elements:

Seven Levels, Four Operators

6. Context, Environment (Military, Civil, Physical, etc.)

7. OWNFOR Why = Purpose, Mission

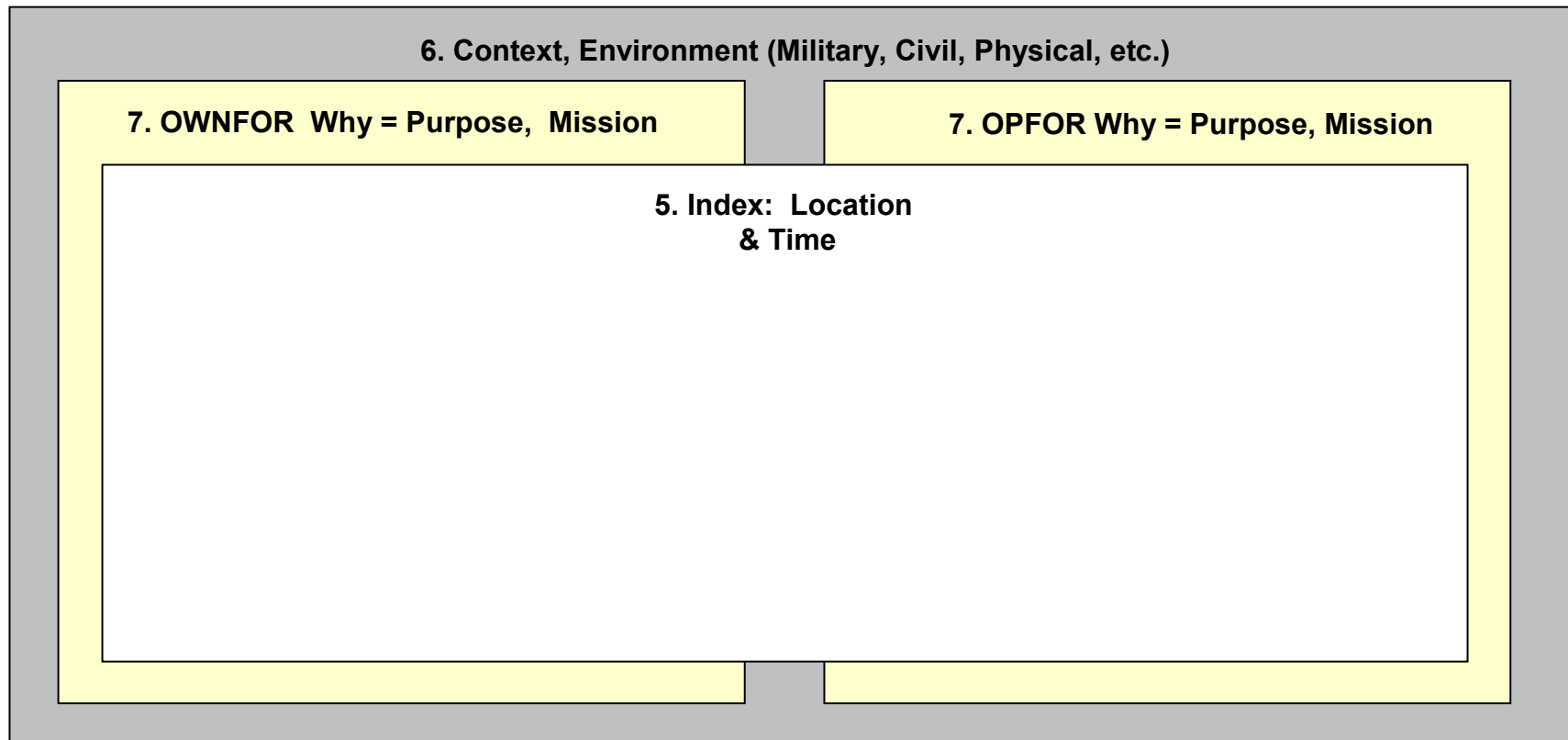
7. OPFOR Why = Purpose, Mission

6. Under What Circumstances

Missions and Means Framework

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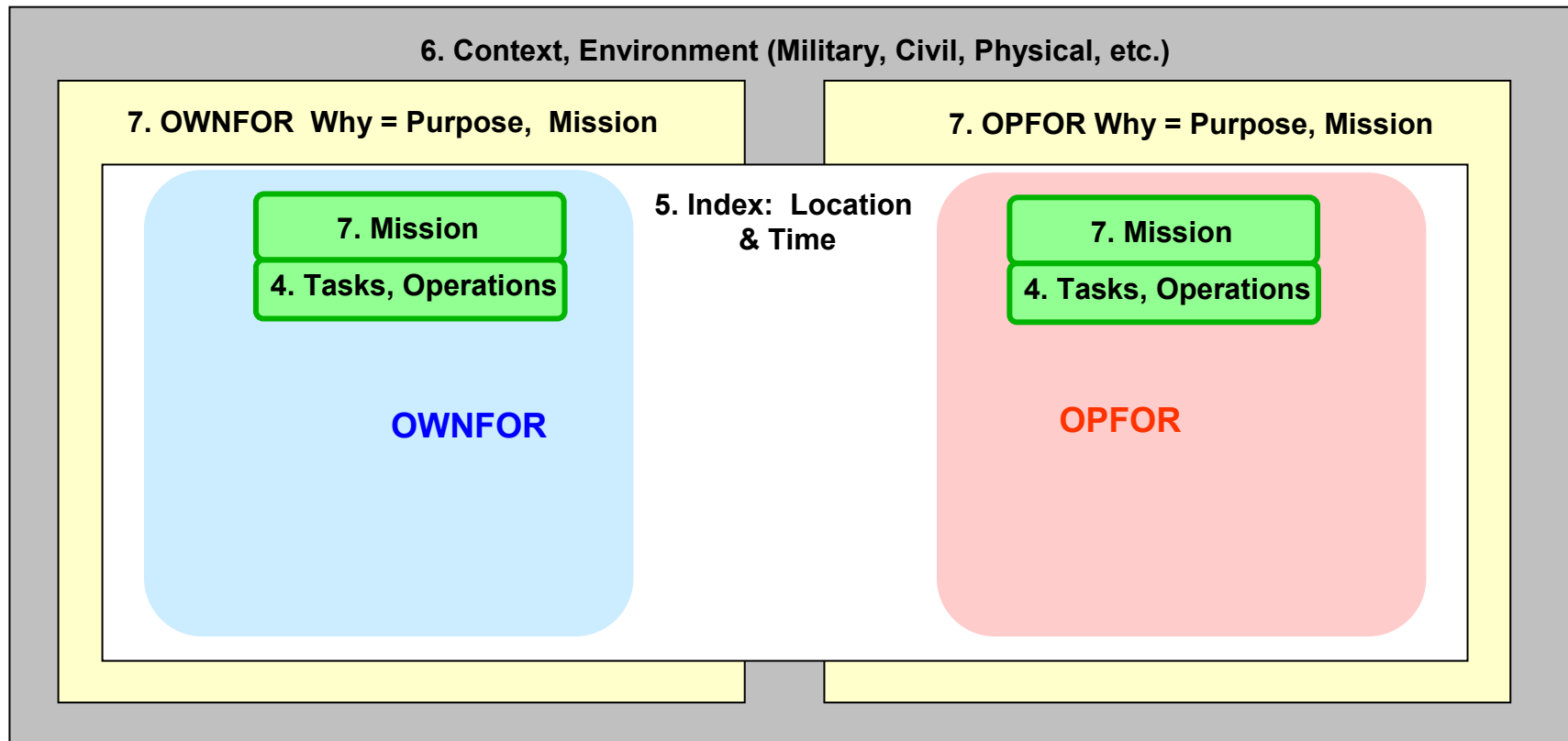


5. When and Where

Missions and Means Framework

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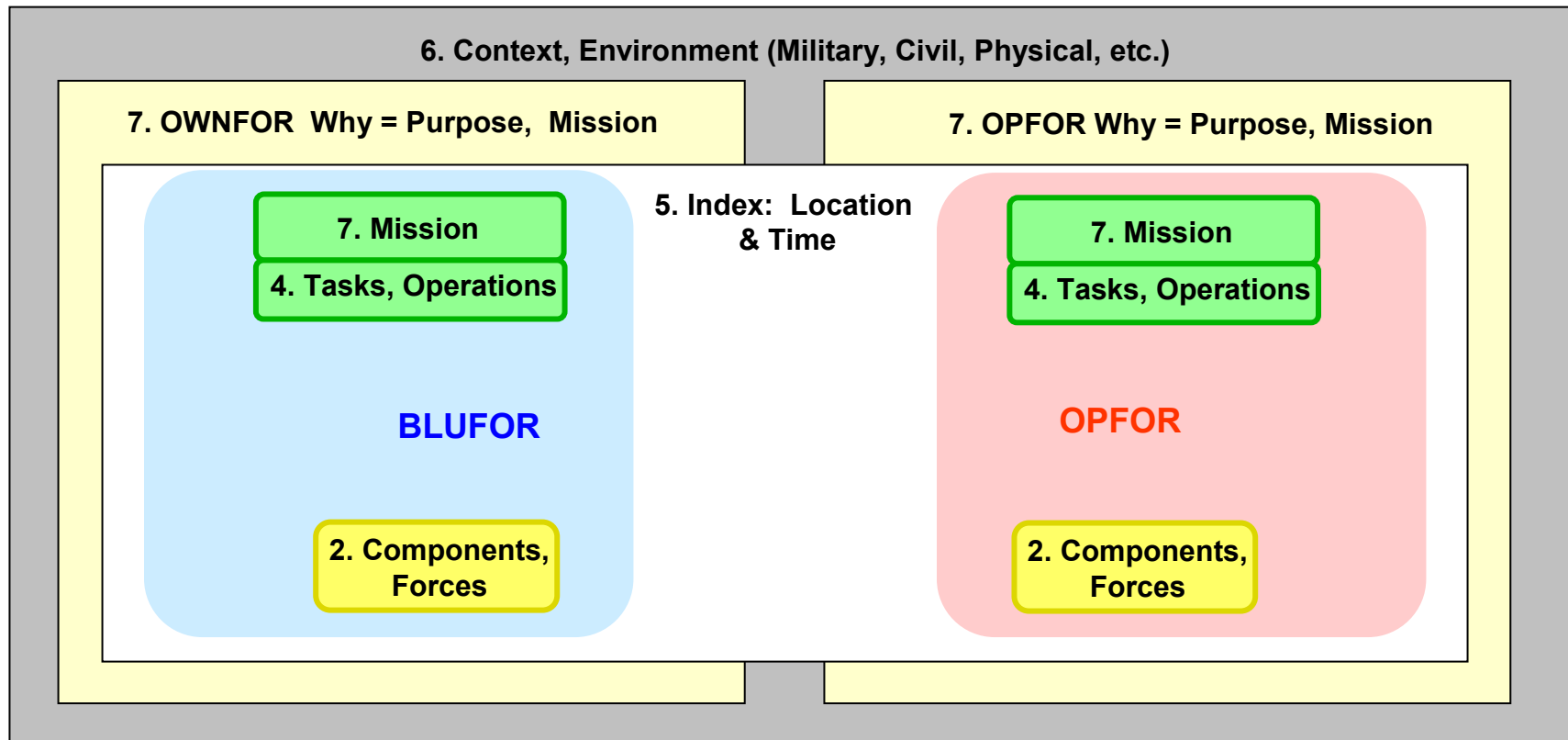


4. Activity-centric, named with a Verb, “Do What” -- the Playbook

Missions and Means Framework

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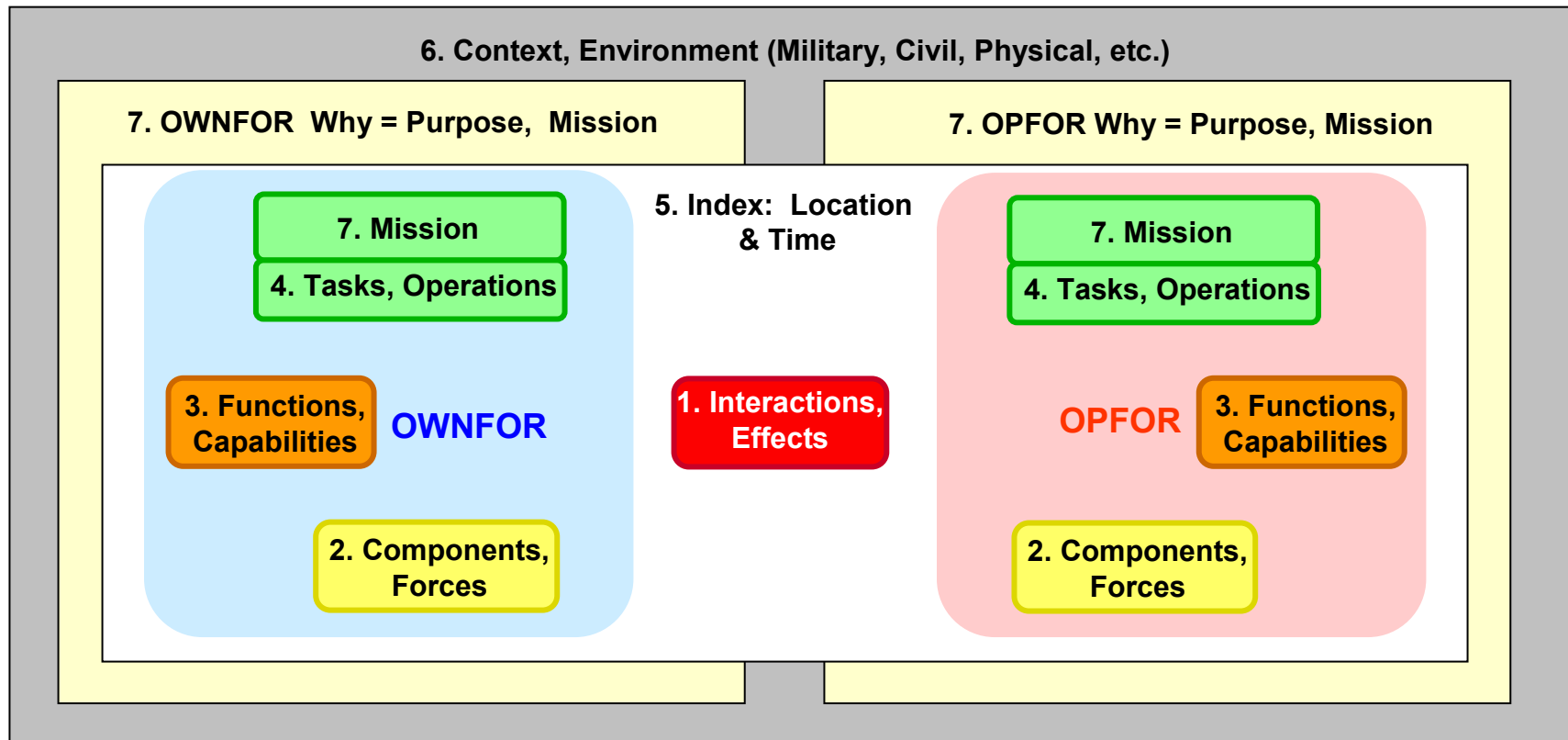


2. Entity-centric, named with a Noun “By Whom” -- the Players

Missions and Means Framework

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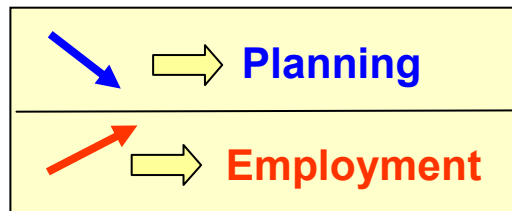
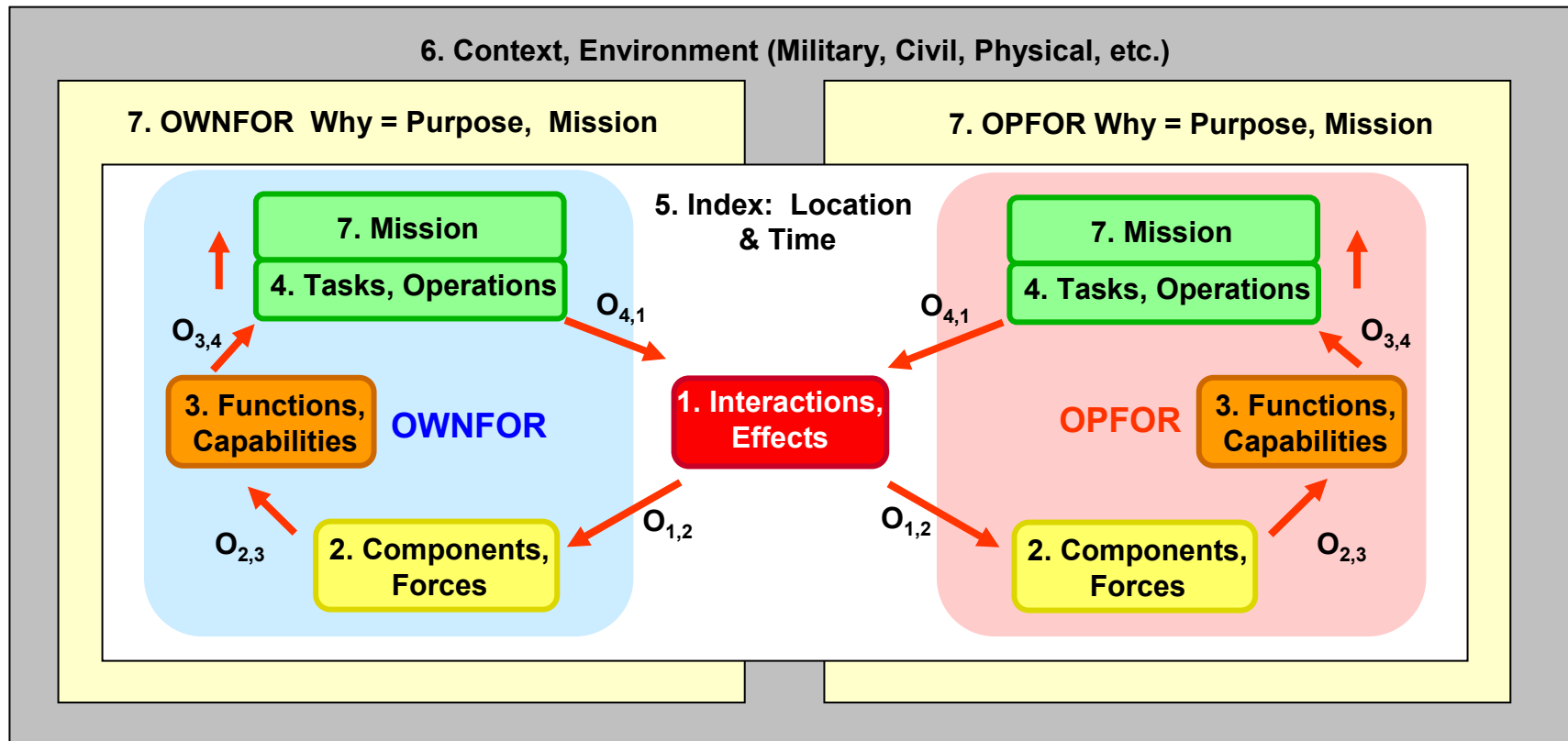
1. The (shared) Slings-and-Arrows of Outrageous Fortune -- Science

3. Condition-dependent "How Well" -- Engineering

Missions and Means Framework

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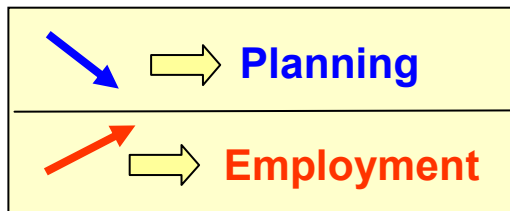
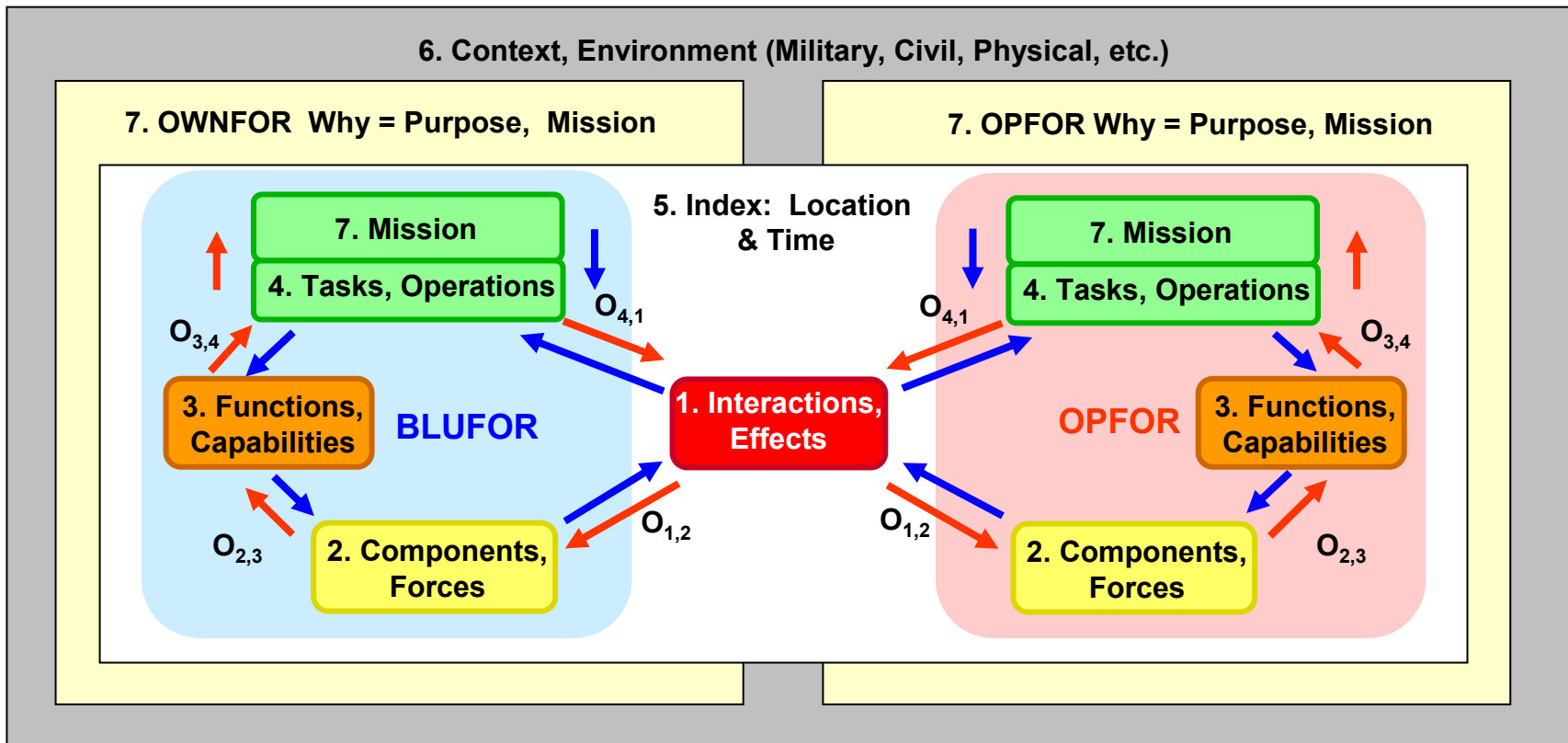


**Bottom-up, Causal, Time-forward
execution and adjudication of outcomes**

Missions and Means Framework

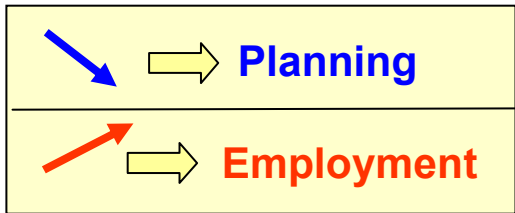
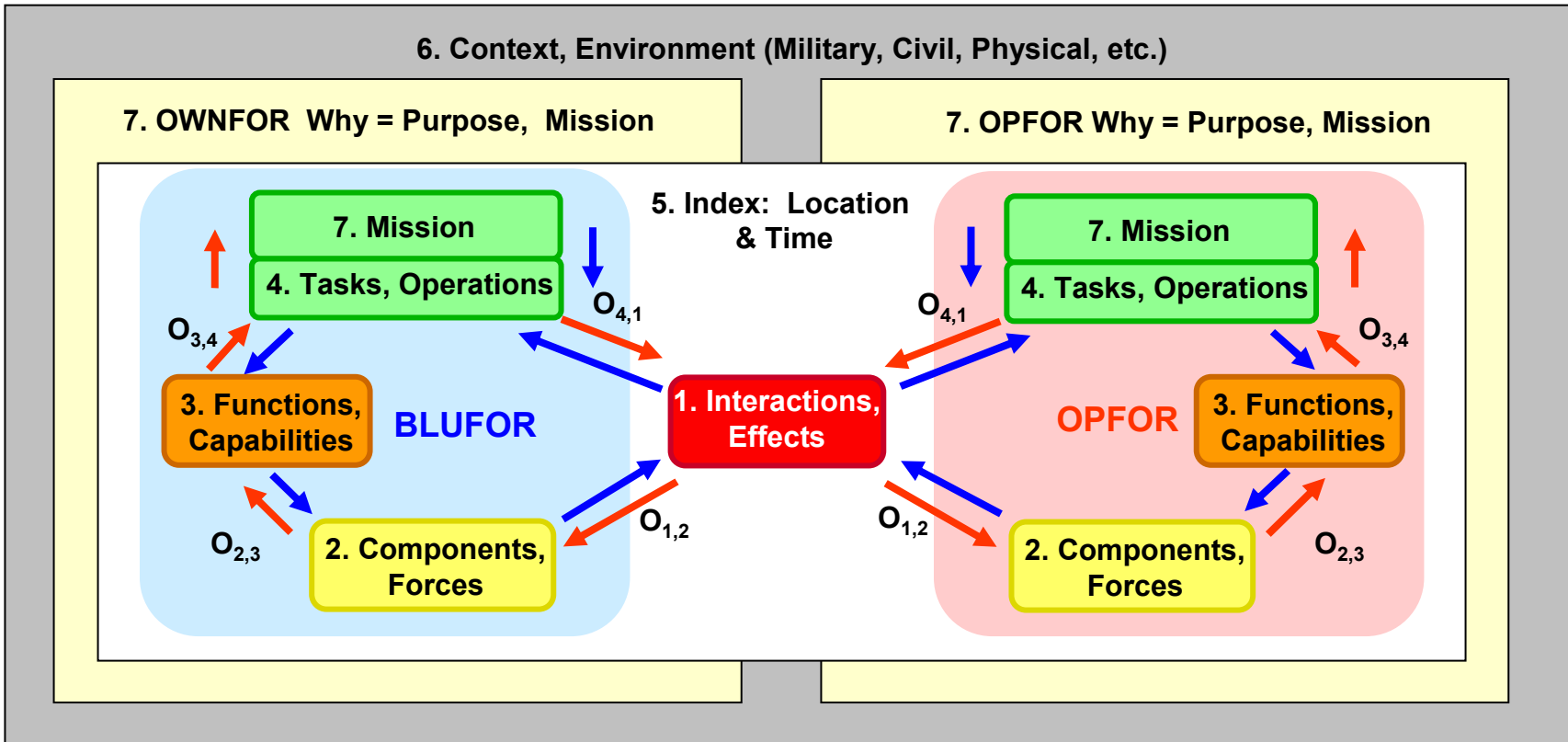
11 Fundamental Elements:

Seven Levels, Four Operators



**Top-Down, Concurrent
Synthesis and Decision Making**

Missions and Means Framework



Architecture defines how Parts are assembled into Packages

Capabilities are relationships between Parts and Packages

MMF Application - Situation

Road to War

- Radical elements form new government, seek to force recognition by UN as legitimate government.
- Legitimate, pro-Western Government of Orangeland is overthrown by radical elements and forced into exile.
- Majority of Orangeland's conventional military forces are loyal to new government. Orangeland invades neighboring country of Blueland.
- United States and its coalition partners believe national interests and regional stability are threatened. They take military action to drive Orangeland forces from Blueland; remove rebel government from power; restore legitimate, pro-Western government; stabilize region; and protect U.S. and coalition vital interests.

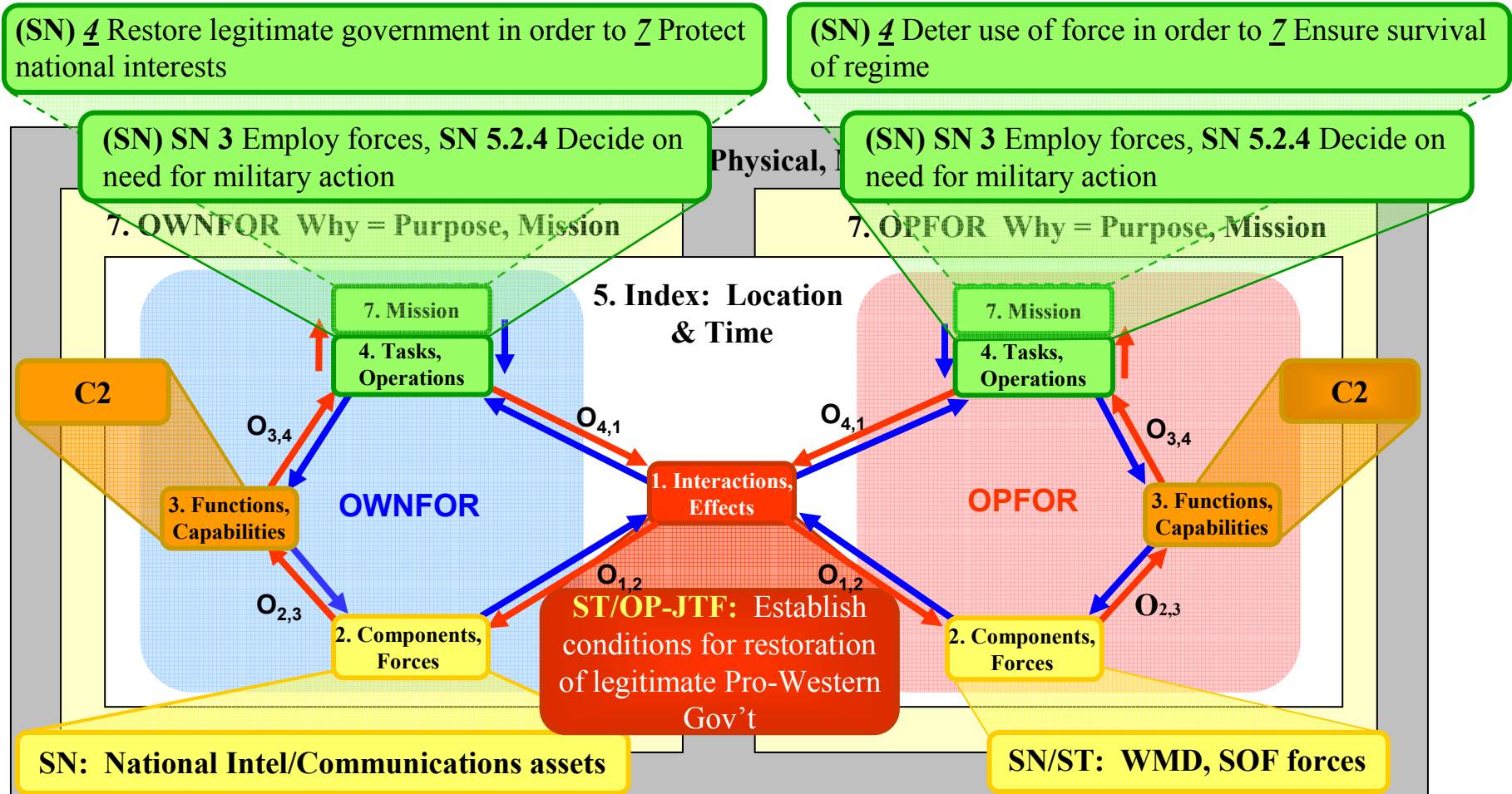
Current Situation

- Coalition forces have commenced offensive ground operations in the region to drive Orangeland forces out of Blueland and continue attacking to isolate rebel government leadership inside capital of Orangeland.

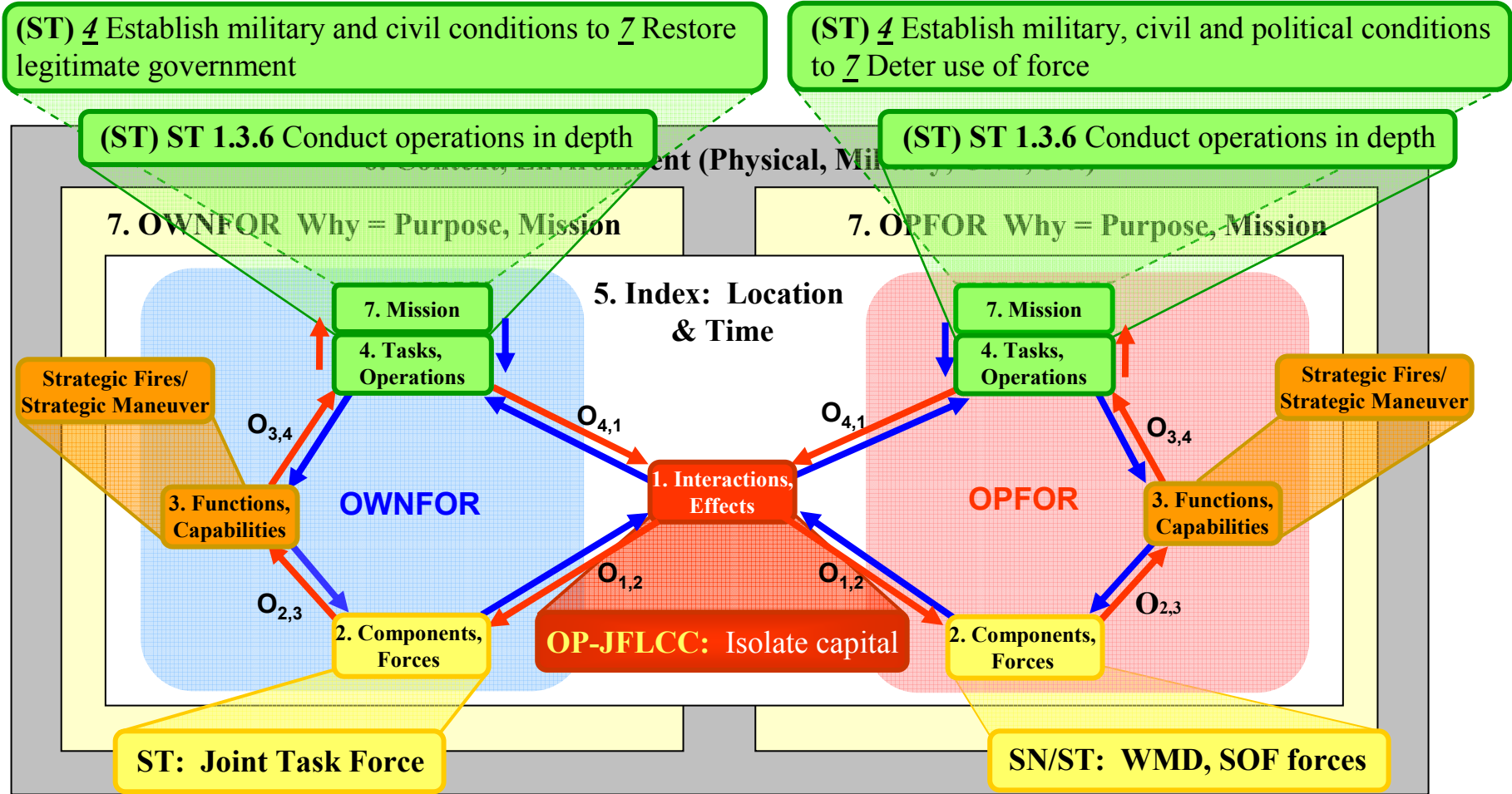
Mission

- CJFLCC intends to isolate rebel government leadership in the capital by defeating majority of conventional forces well outside the capital and preventing them from reinforcing security forces protecting the rebel leadership inside the capital.

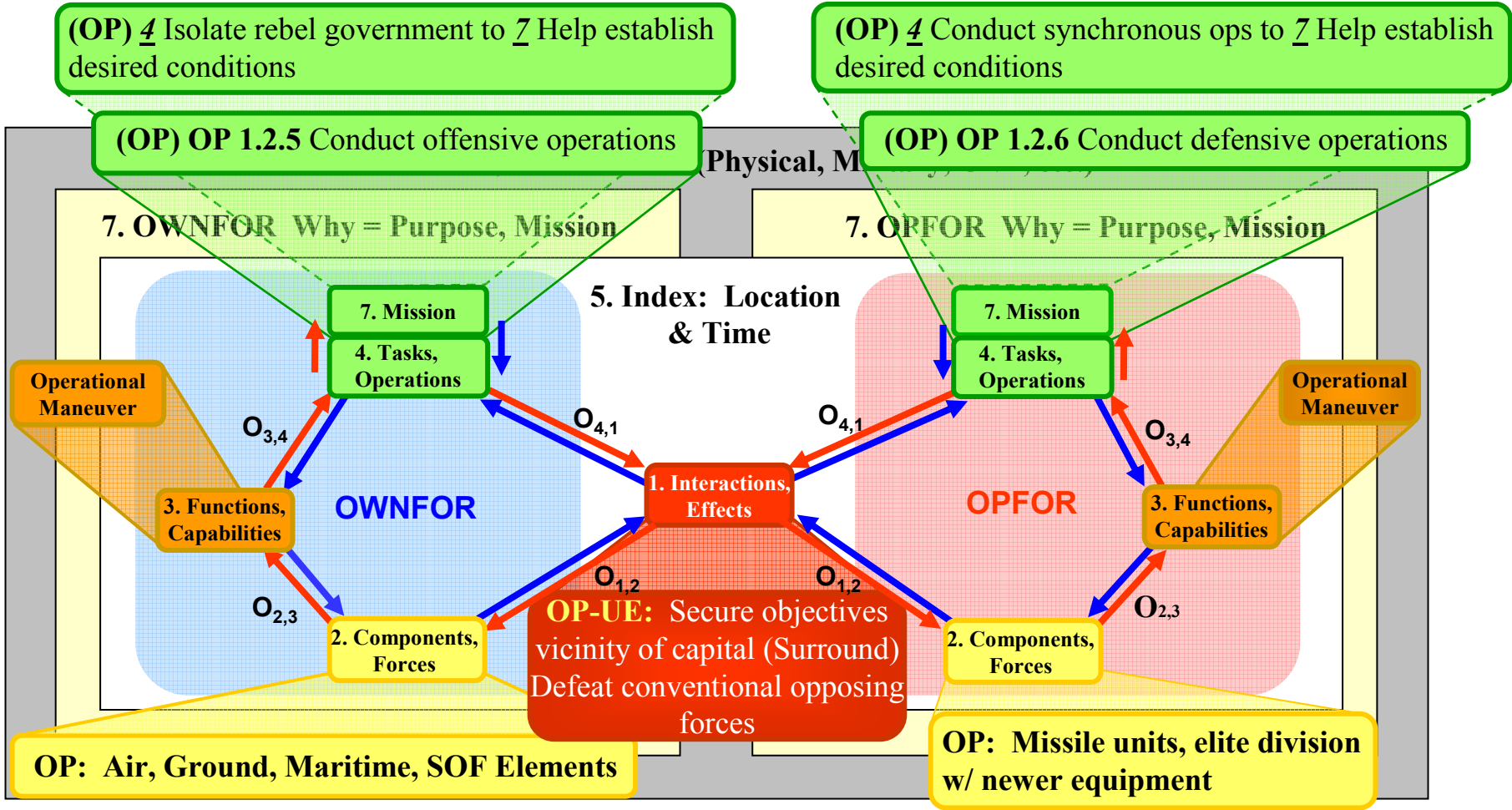
MMF Layered View: SN



MMF Layered View: ST



MMF Layered View: OP

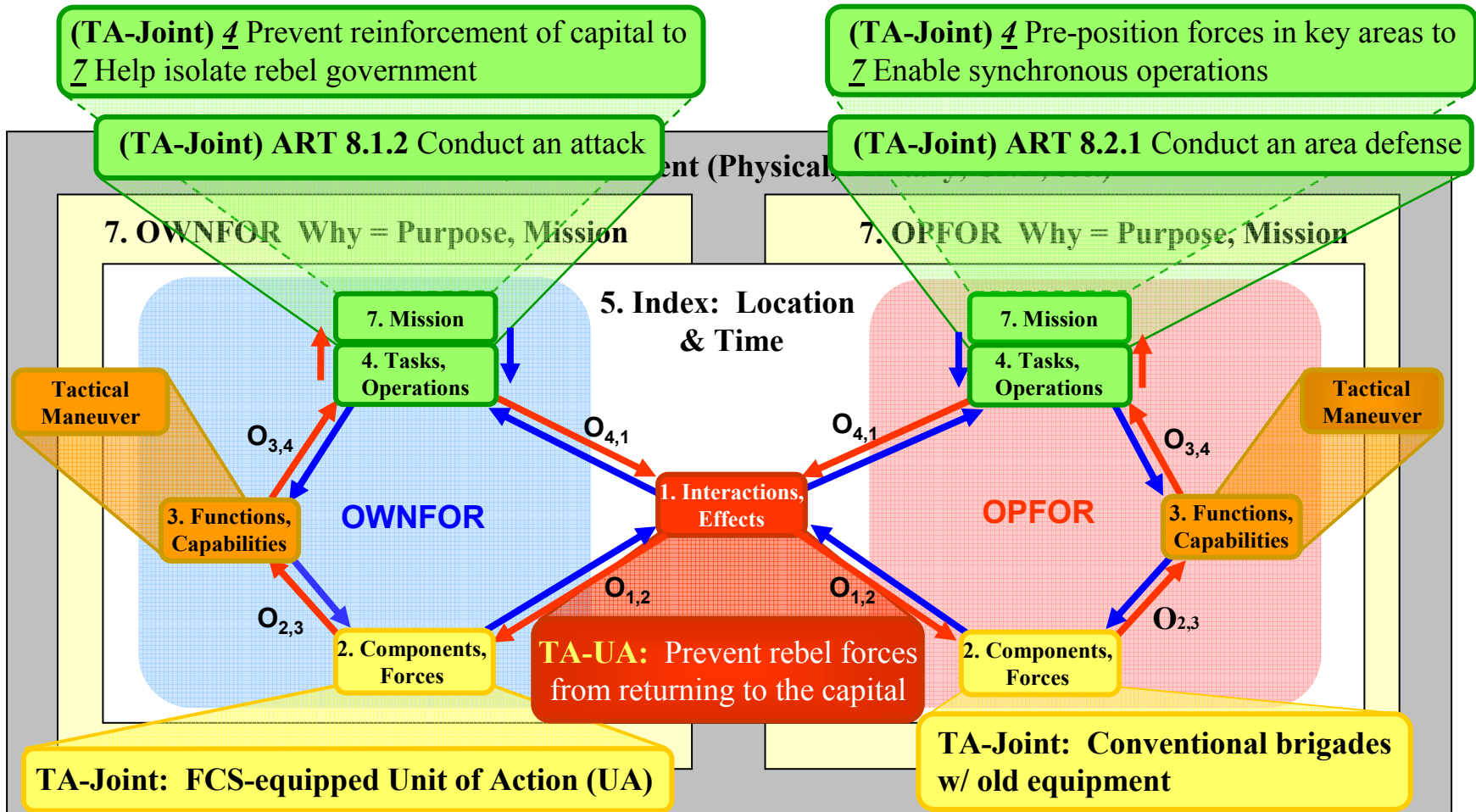






 Synthesis
 Employment

MMF Layered View: TA-Joint

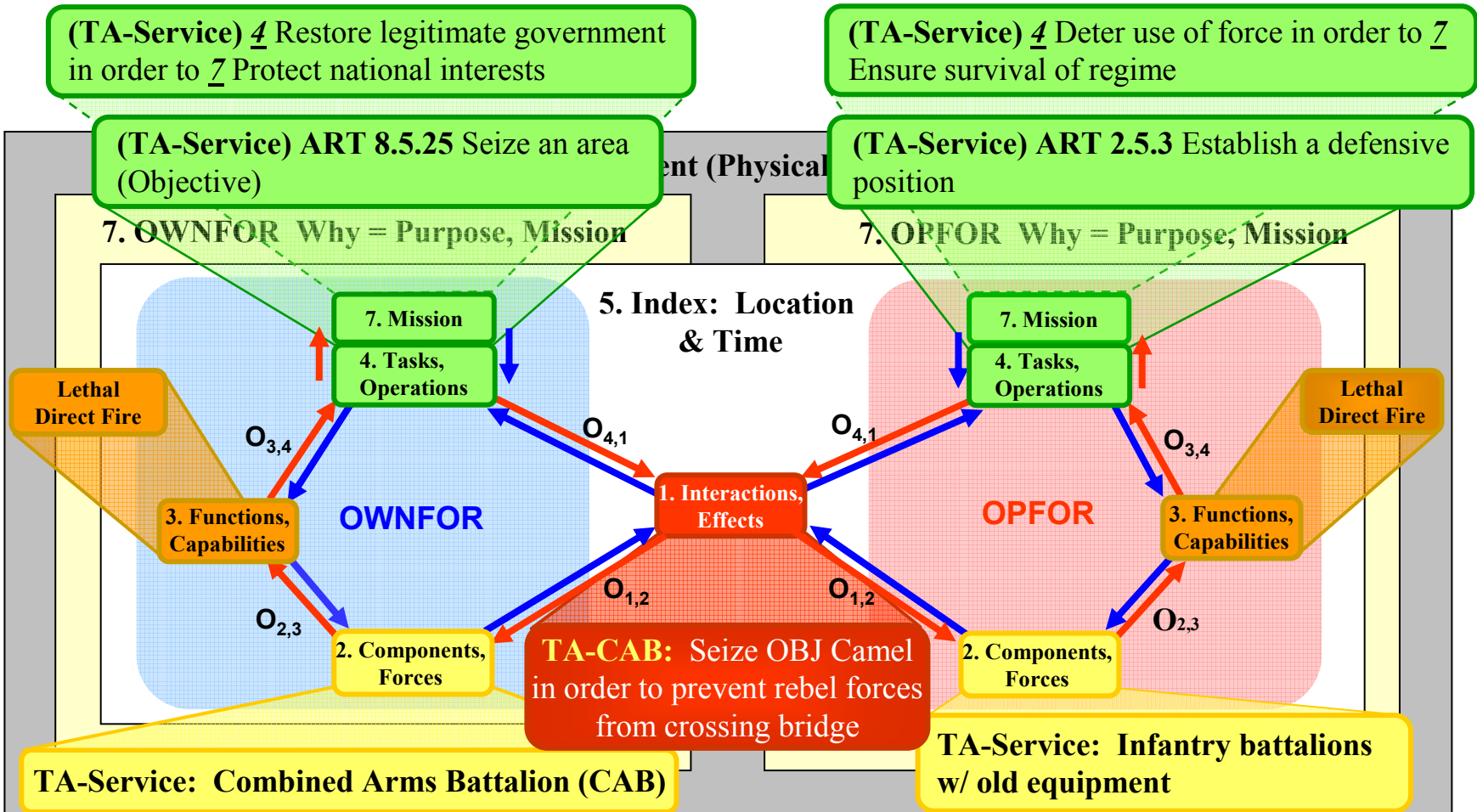






Synthesis
Employment

MMF Layered View: TA-Service



JTIMS (Operational View)

Mission: UAMBL JFLCC TE Summit III

UAMBL JFLCC TE Summit III

- Defeat rebel forces in the Area of Operations
- Eliminate WMD
- Isolate the rebel high command in Baku
 - OP 2 Provide Operational Intelligence, Surveillance, and Reconnaissance
 - Supporting Tasks
 - OP 2.1 Direct Operational Intelligence Activities
 - OP 2.2 Collect and Share Operational Information
 - OP 2.3 Process and Exploit Collected Operational Information
 - OP 2.4 Produce Operational Intelligence and Prepare Intelligence Products
 - OP 2.5 Disseminate and Integrate Operational Intelligence
 - Command-Linked Tasks
 - OP 3 Employ Operational Firepower
 - Supporting Tasks
 - OP 3.1 Conduct Joint Force Targeting
 - Supporting Tasks
 - OP 3.1.3 Develop Operational Targets
 - OP 3.1.4 Develop High-Payoff and High-Value Targets
 - OP 3.1.6 Conduct Operational Combat/Military Operations
 - OP 3.1.7 Employ Fire Support Coordination Measures
 - OP 3.1.8 Coordinate Immediate Targets for Two Operations
 - Command-Linked Tasks
 - OP 3.2 Attack Operational Targets
 - Supporting Tasks
 - OP 3.2.2.2 Employ Electronic Attack (EA) in the Joint Force
 - OP 3.2.2.3 Employ Information Attack in the Joint Force
 - OP 3.2.2.4 Conduct Nonlethal Attack on Personnel
 - OP 3.2.4 Suppress Enemy Air Defenses
 - OP 3.2.5 Interdict Operational Forces/Targets
 - OP 3.2.7 Synchronize Operational Firepower
 - Command-Linked Tasks
 - OP 5 Provide Operational Command and Control (C2)

Mission **Conditions** **Doctrine *** **Guidance** **MTAs ***

Security Classification: (U)

Name: UAMBL JFLCC TE Summit III

Code: US Army-2003-0071

Combatant Command: Joint Forces Land Component Command - JFLCC **Mo**

Last Modified: 2003-04-18 14:46:43.0

Created: 2003-04-17 15:58:27.0

*** Subordinate Command:** UE 1 **Mo**

*** OPLAN:** **Mo**

Published: U

Level:

- Primary Mission (M)**
- Operation (O)
- Phase (P)
- Specified Task (S)
- Implied Task (I)

*** Description:**

JFLCC continues the attack at H-hour to defeat rebel forces blocking access to the Baku peninsula. On seize rebel high command facility in Baku and eliminate WMD in the Area of Operations.

Apply **Reset** **Close** **Help**

JTIMS v1.4 Build 117 (Apr 10, 2003) bbray_1

.Java Applet Window

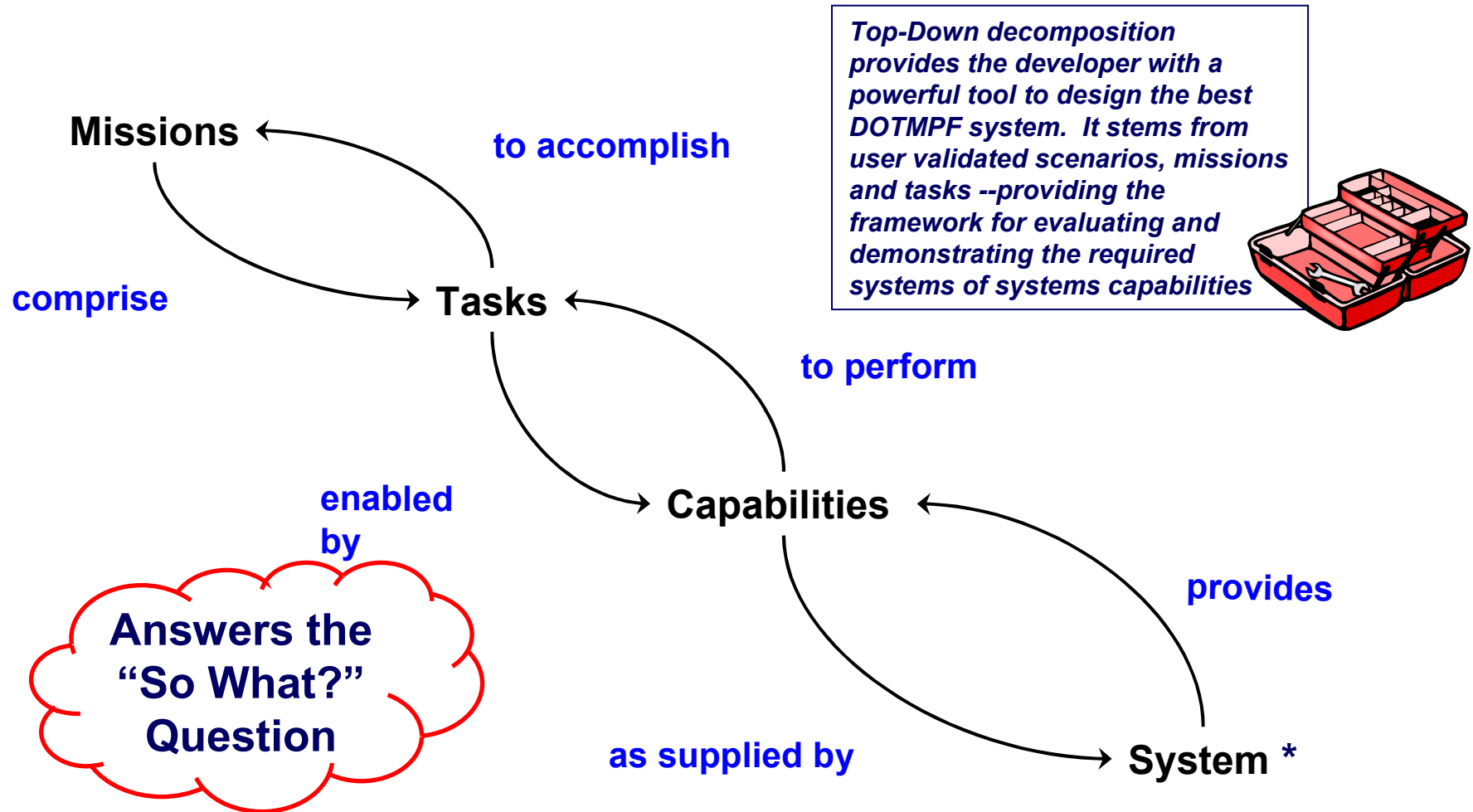
UOB DAT Task Organization

Corps Aviation Brigade

	Unit ID	Unit Name	Unit	Ship	Loc	Unit	Equipment	Aircraft	Personnel	Summary
Corps Avn Bde	Scenario2	Corps Avn Bde								
18TH AVIATION BDE HHC	WDU7AA	18TH AVIATIO								
HHC 229TH AVIATION GROUP	WC05AA	HHC 229TH AV								
1ST BATTALION, 229TH AVIATION	WC4SAA	1ST BATTALIO								
1ST BATTALION, 229TH AVIATION, HHC, ATTACK BN (AH-64)	WC4STD	1ST BATTALIO								
1ST BATTALION, 229TH AVIATION, A ATTACK COMPANY (AH-64)	WC4SA0	1ST BATTALIO								
1ST BATTALION, 229TH AVIATION, B ATTACK COMPANY (AH-64)	WC4SBO	1ST BATTALIO								
1ST BATTALION, 229TH AVIATION, C ATTACK COMPANY (AH-64)	WC4SC0	1ST BATTALIO								
1ST BATTALION, 229TH AVIATION, D AVN UNIT MAINT CO (AH-64)	WC4SD0	1ST BATTALIO								
0229 AV BN 03 ATK HEL	WJBXAA	0229 AV BN 0								
0229 AV BN 03 ATK HEL, HHC, ATTACK BN (AH-64)	WJBXT0	0229 AV BN 0								
0229 AV BN 03 ATK HEL, A ATTACK COMPANY (AH-64)	WJBXA0	0229 AV BN 0								
0229 AV BN 03 ATK HEL, B ATTACK COMPANY (AH-64)	WJBXB0	0229 AV BN 0								
0229 AV BN 03 ATK HEL, C ATTACK COMPANY (AH-64)	WJBXC0	0229 AV BN 0								
0229 AV BN 03 ATK HEL, D AVN UNIT MAINT CO (AH-64)	WJBXD0	0229 AV BN 0								
COMPANY C 159TH AVIATION	WDU1AA	COMPANY C 1								
1ST BN 58TH AVIATION HHC	WHPCAA	1ST BN 58TH								
1ST BN 58TH AVIATION HHC, HHC, ATS BATTALION	WHPCT0	1ST BN 58TH								
1ST BN 58TH AVIATION HHC, B ATS COMPANY (ABN)	WHPCB0	1ST BN 58TH								
1ST BN 58TH AVIATION HHC, C ATS COMPANY (AASLT)	WHPC00	1ST BN 58TH								
1ST BN 58TH AVIATION HHC, D ATS COMPANY (DIVISION)	WHPCD0	1ST BN 58TH								
1ST BN 58TH AVIATION HHC, E ATS COMPANY (DIVISION)	WHPCE0	1ST BN 58TH								
1ST BN 58TH AVIATION HHC, F ATS COMPANY (DIVISION)	WHPCF0	1ST BN 58TH								

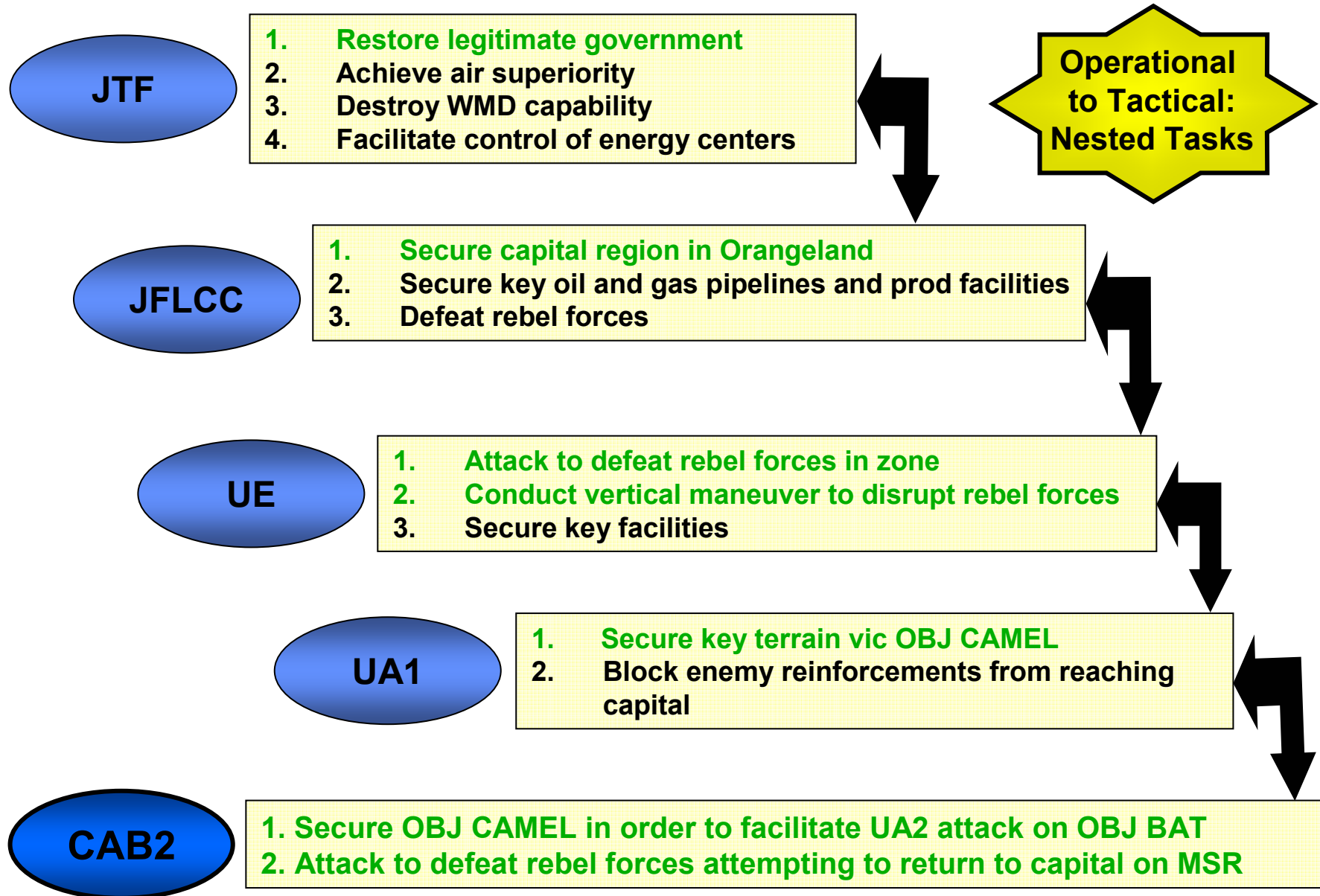
Unit: WC4SA0					
Unit Name: 1ST BATTALION, 229TH AVIATION, A ATTACK C					
Description	Code	Req	Auth		
AVIATORS NIGHT VISION IMAGING SYSTEM	A06352	8	8		
ALARM: CHEMICAL AGENT AUTOMATIC M2	A33020	3	3		
BAYONET-KNIFE: W/SCABBARD FOR M16A	B49272	27	27		
BINOCULAR: MODULAR CONSTRUCTION	B67766	3	3		
MONITOR CHEMICAL AGENT:	C05701	2	2		
COUNTERMEASURES SET: AN/ALQ-136(V)	C20722	8	8		
CABLE TELEPHONE: WD-1/TT DR-8 1/2 Kw	C68719	7	7		
CABLE TELEPHONE: WF-16/U	C69541	1	1		
CAMOUFLAGE SCREEN SUPPORT SYSTEM	C89070	11	11		
CAMOUFLAGE SCREEN SYSTEM: WOODLA	C89145	11	11		
DETECTION SET RADAR SIGNAL: AN/APR-	D03159	8	8		
DISPENSER GENERAL PURPOSE: AIRCRAI	D20060	8	8		
DIGITAL NON-SECURE VOICE TERMINAL	D60801	1	1		
DATA TRANSFER DEVICE: AN/CYZ-10	D78555	13	13		
ELECTRONIC TEST SET: TS-4348/UV	E03826	3	3		
ELEC TRANSFER KEYING DEVICE ETKD: K	E98103	2	2		
GEN SET: DED SKID MTD 3Kw 60HZ	G18358	1	1		
GUIDED MISSILE SURFACE ATTACK DUM	G95741	21	21		
GUIDED MISSILE TRAINING M36: (HELLFIR	G96350	7	7		
HELICOPTER ADVANCED ATTACK: AH-64	H28647	8	8		
IR JAMMER COUNTERMEASURES SET: AN	J01917	8	8		
LAUNCHER GRENADE 40 MILLIMETER: SG	L44595	2	2		
LAUNCHER: GUIDED MISSILE AIRCRAFT	L44830	32	32		
LAUNCHER ROCKET AIRCRAFT: 2.75 INCH	L45131	16	16		
LIGHT SET MARKER EMERGENCY: AIR FIE	L64131	2	2		
MACHINE GUN 5.56 MILLIMETER: M249	M09009	2	2		
MASK CHEMICAL BIOLOGICAL: M40	M12418	11	11		
MASK: CHEMICAL BIOLOGICAL APACHE AV	M13515	16	16		
MOUNT TRIPOD MACHINE GUN: 7.62 MILLI	M75714	2	2		
NIGHT VISION SIGHT INDIVIDUAL SERVED	N04732	2	2		
NIGHT VISION GOGGLE: AN/PVS-7B	N05482	6	6		
NAVIGATION SET SATELLITE SYSTEMS: AN	N95862	1	1		
PROGRAM LOADER RADIO SET: KY-913/Pf	P04582	2	2		
POWER SUPPLY: PP-6224/U	P40750	1	1		

Missions & Means Framework implementation of JCIDS (Purdy/Donlin variant)

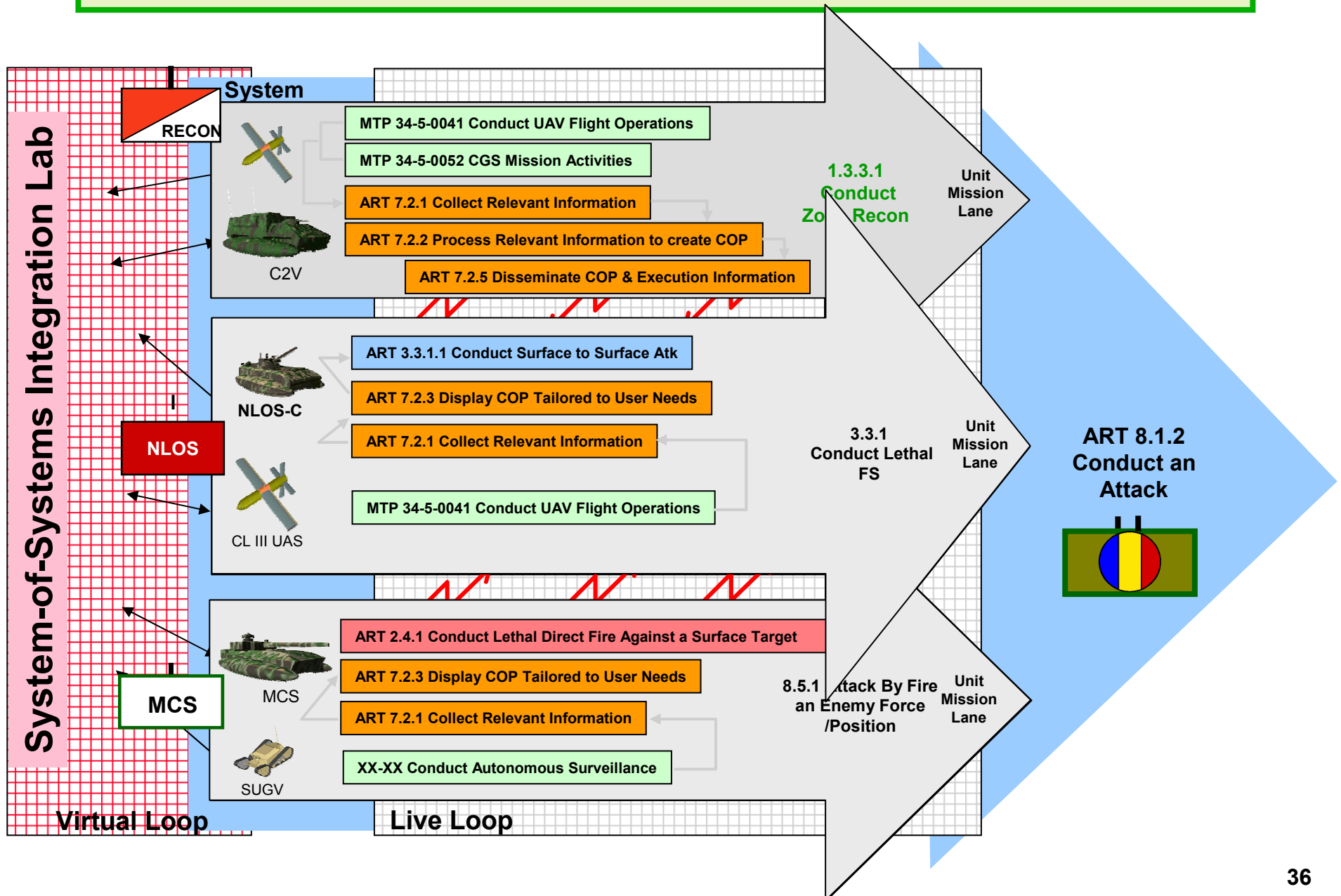


* System is the integrated Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities (DOTMFPF) readiness solution

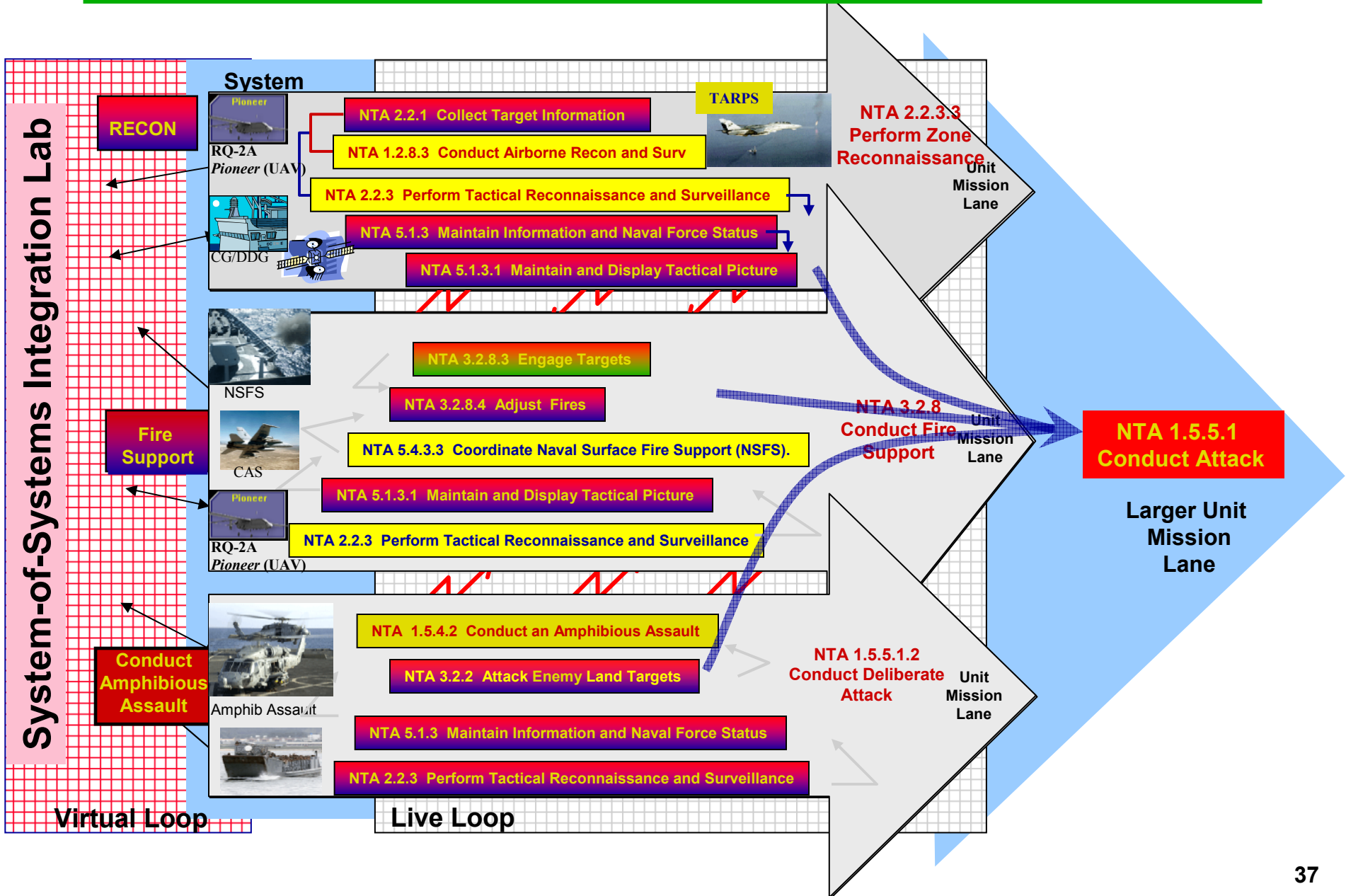
MMF Application – Key Tasks



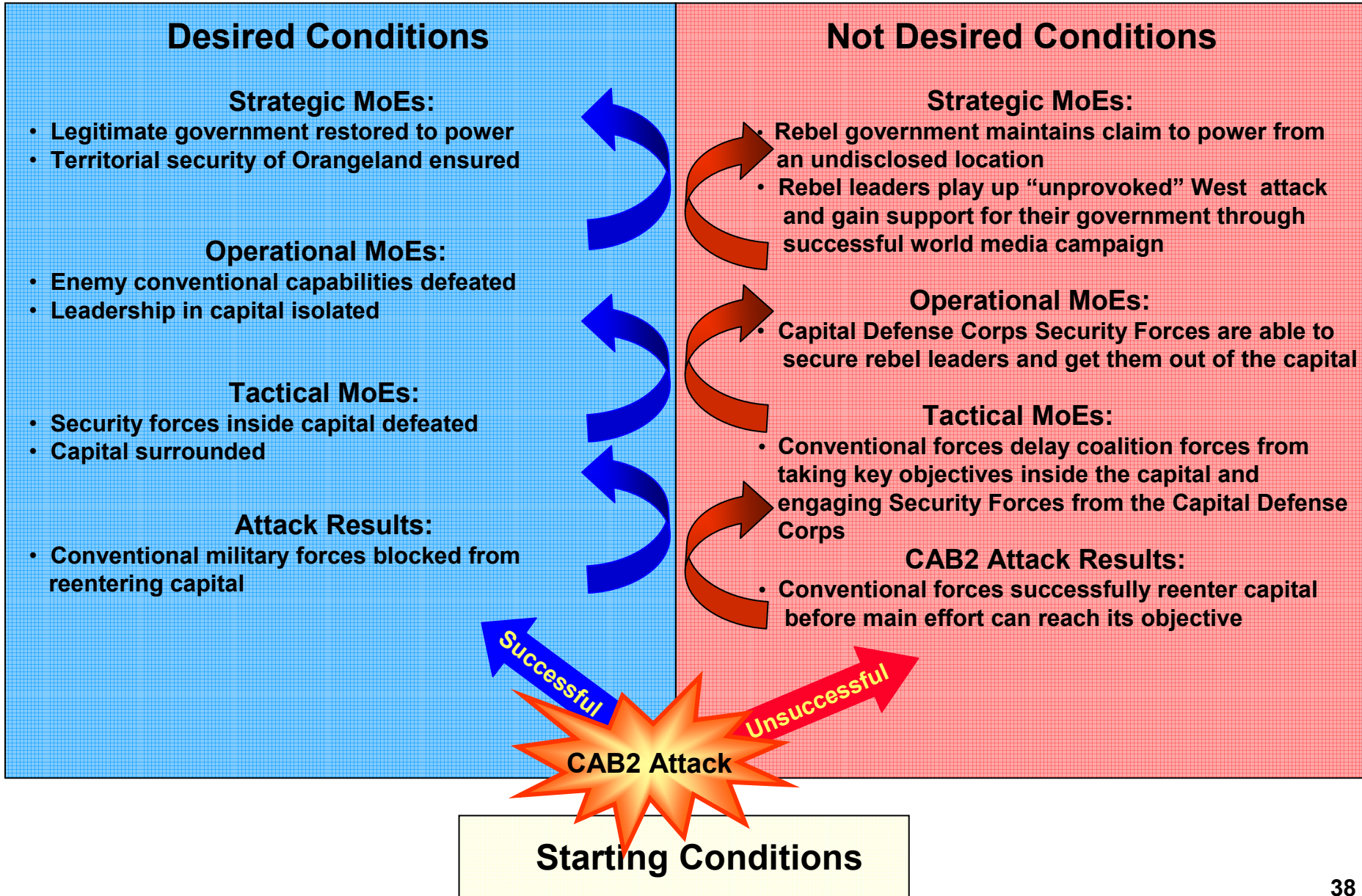
Sample Army Task Set Applied to OT Model



Sample Navy Task Set Applied to OT Model



Relating Effects to Utility



Missions and Means Framework

Purpose: Provide a methodology for explicitly specifying the military mission and quantitatively evaluating the mission utility of alternative warfighting Doctrine, Organization, Training, Materiel, Leadership, Personnel, and Facilities (DOTMLPF) services and products.

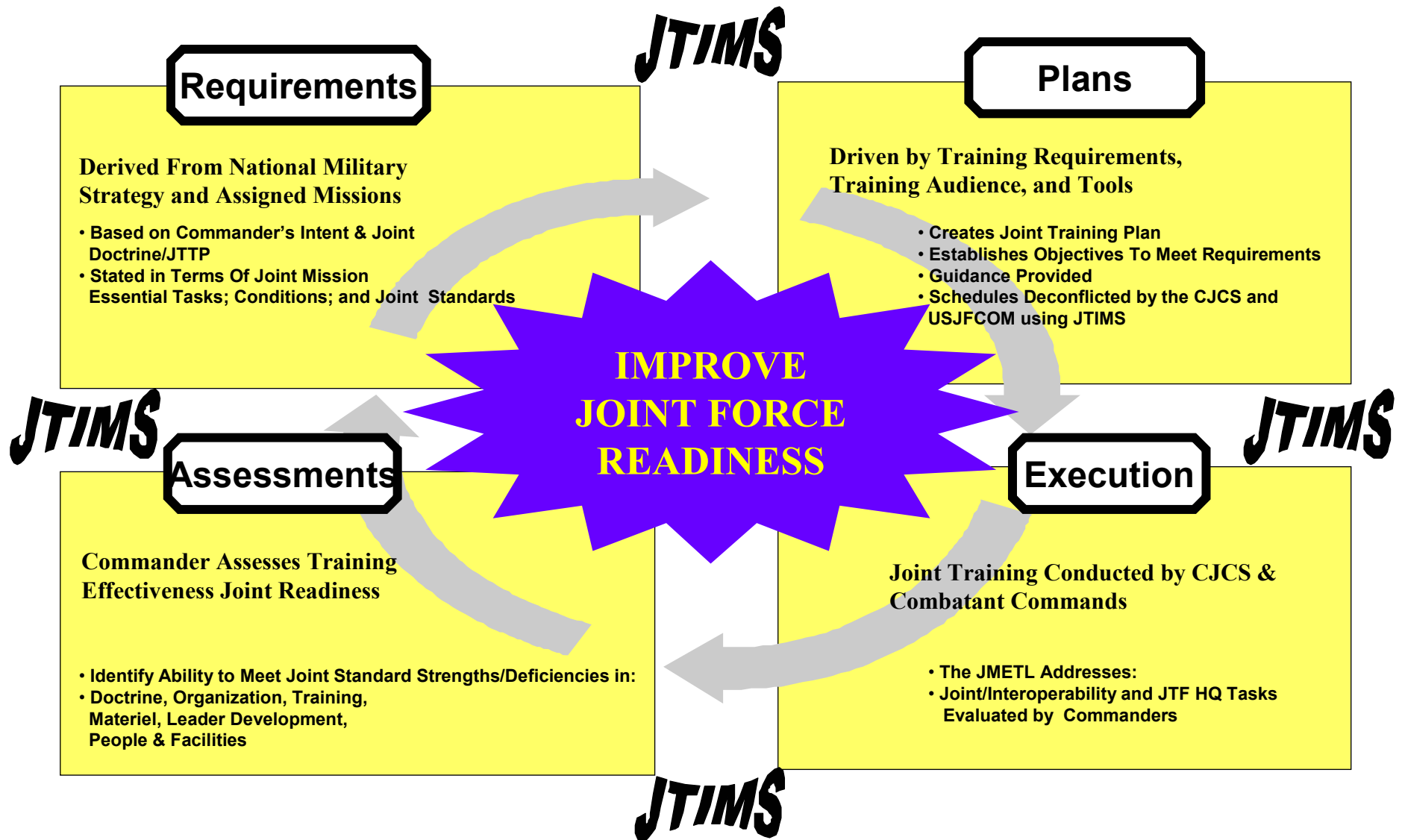
Objective: Provide a disciplined procedure to explicitly specify the mission, allocate means, and assess mission accomplishment by:

- Unifying the warfighter, engineer, and comptroller understanding of missions and means.
- Accounting for traditional testing and evaluation factors and traditional warfighter expertise factors that constitute mission success.
- Being sufficiently credible, timely, and affordable to make hard decisions that stay made.
- Being consistent, concise, repeatable, and scalable.
- Providing a disciplined process to implement the Defense Secretary's transformation guidance and associated acquisition reform.

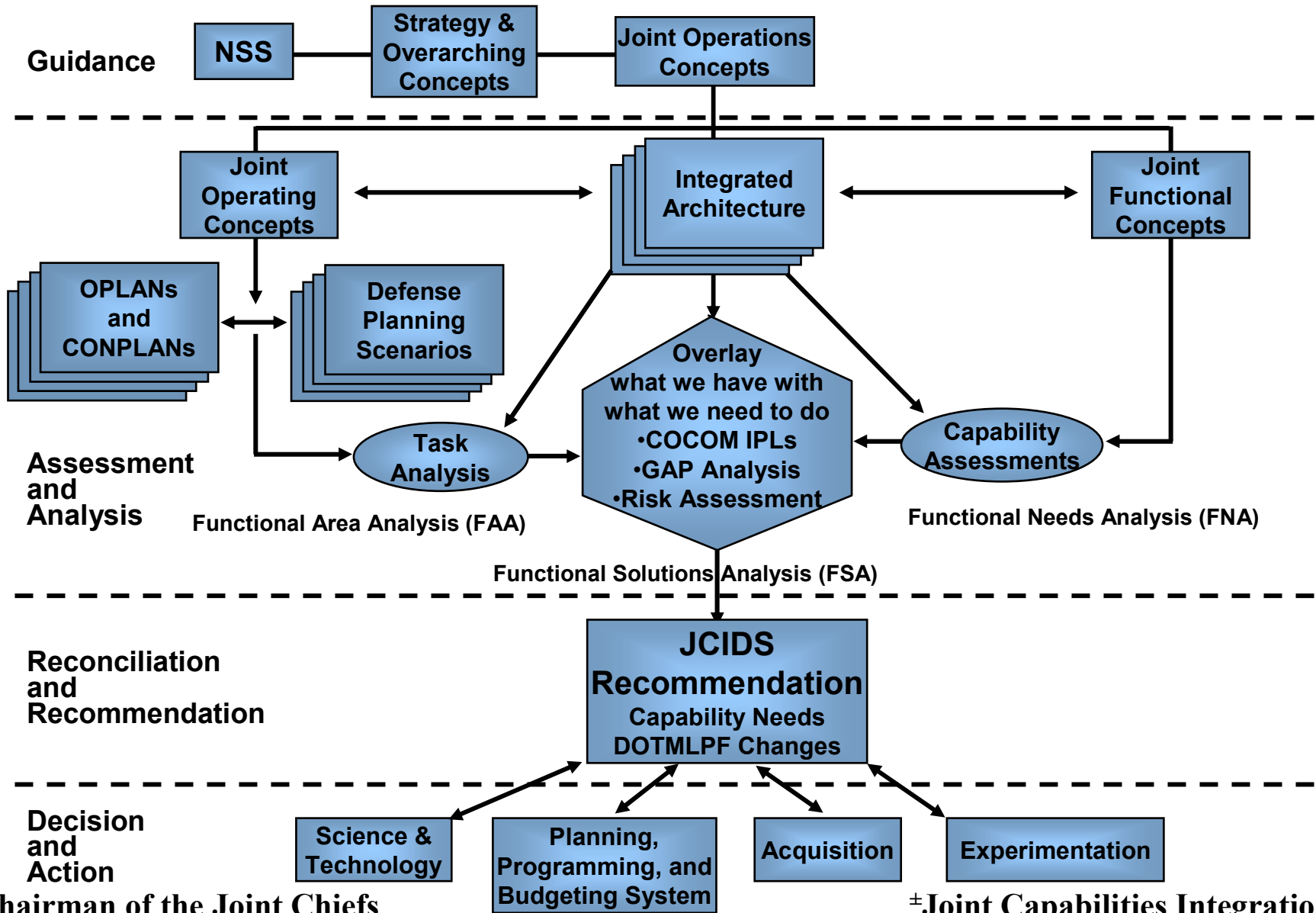
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Joint Training System



CJCSI 3170[§] (JCIDS[±])



[§]Chairman of the Joint Chiefs
of Staff Instruction 3170

[±]Joint Capabilities Integration
and Development System

Warfighter **Visualizes** the operation and capabilities required to accomplish mission.

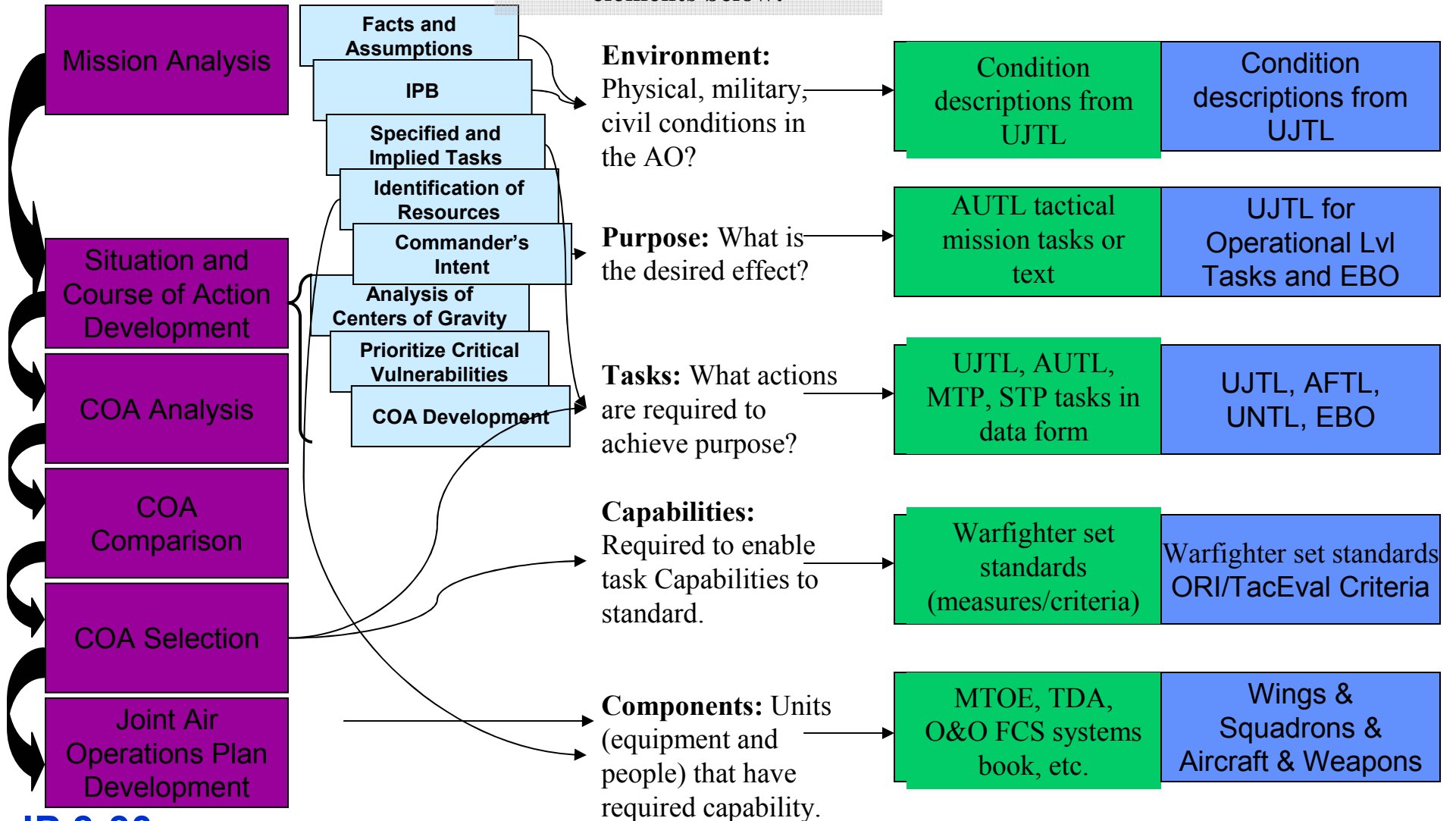
Mission Received

MMF enables warfighter to **Describe** vision using framework to ID key elements and tools to capture elements in data form.

Warfighter/Rep.

MMF prompts capture of the elements below:

Analyst/Engineer



Warfighter **Visualizes** the operation and capabilities required to accomplish mission.

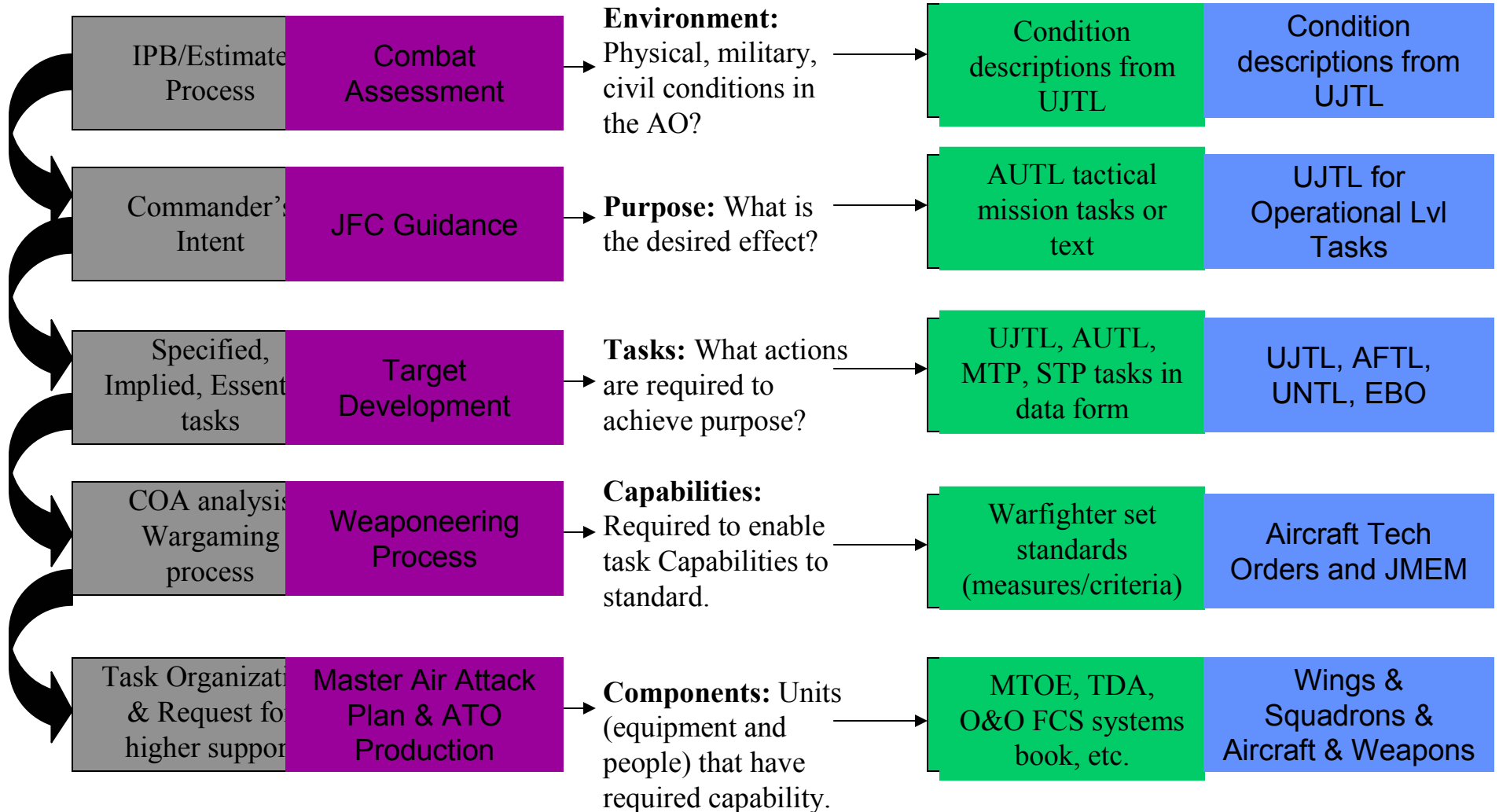


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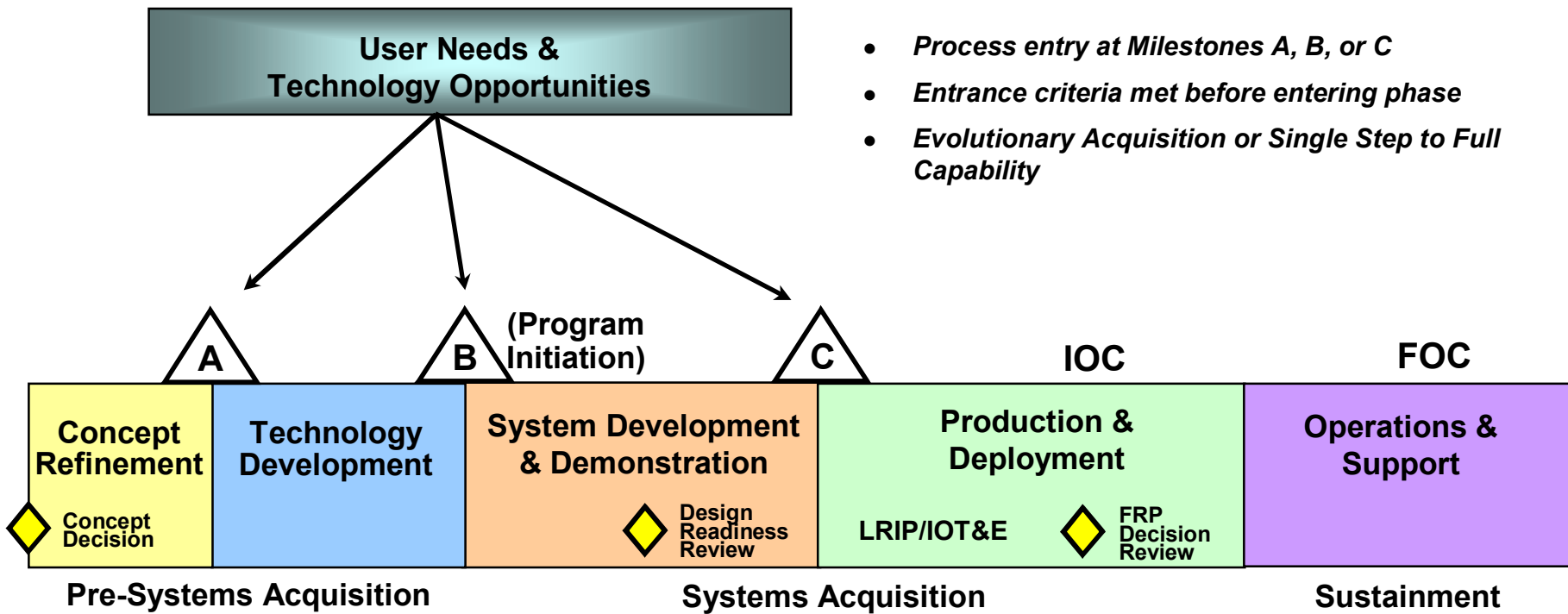
MMF prompts capture of the elements below:

Warfighter/Rep.

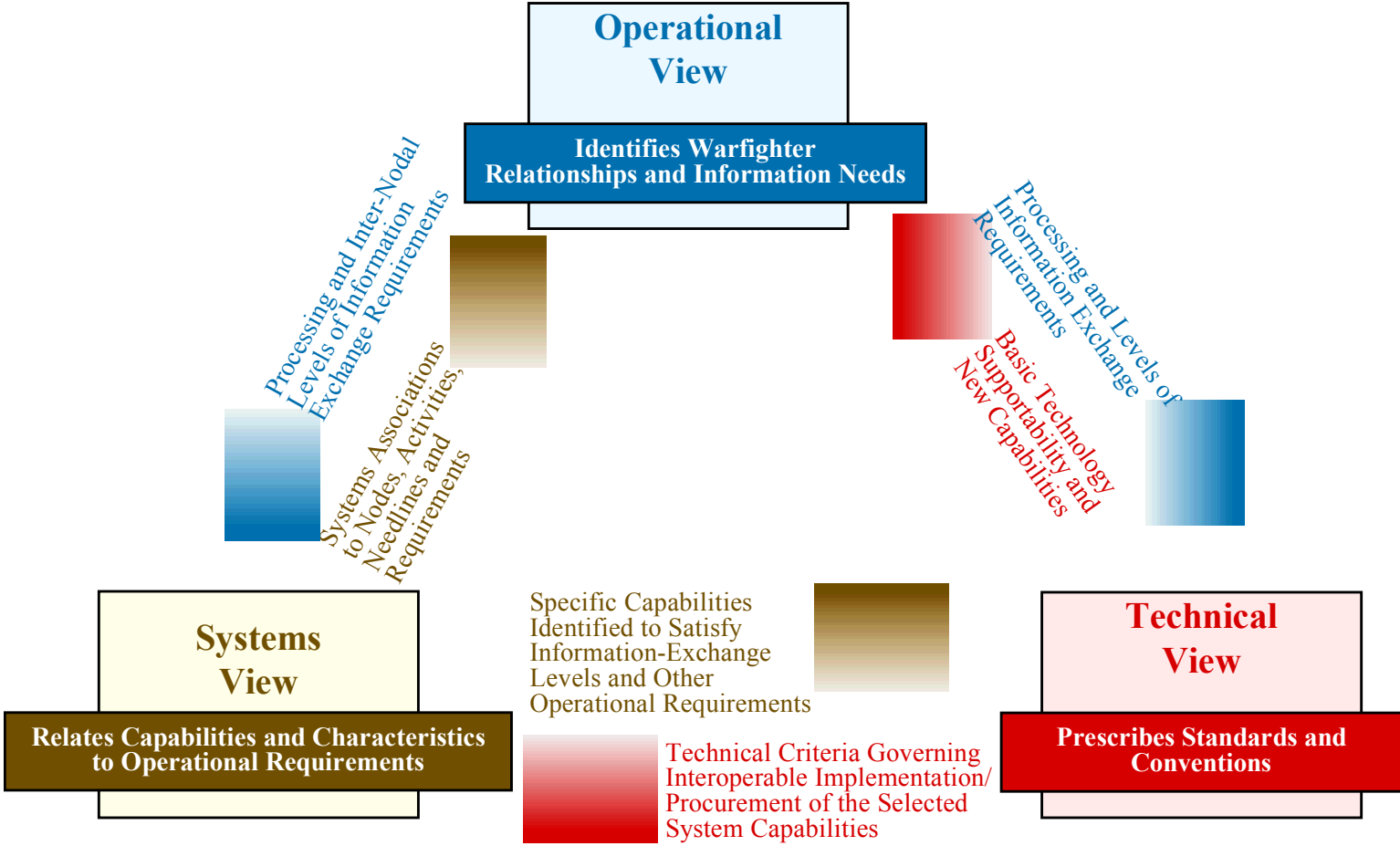
Analyst/Engineer



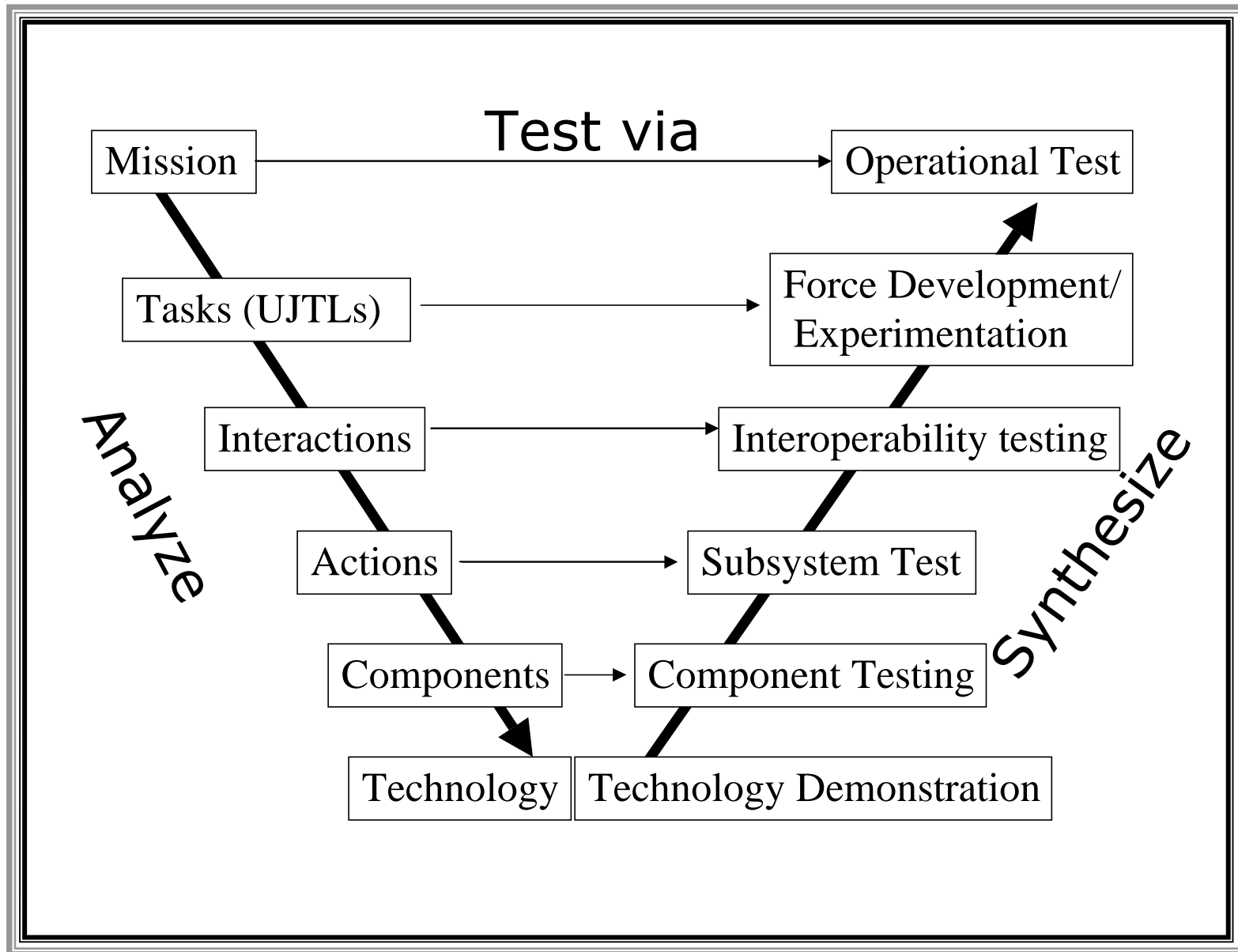
DoD 5000.2



DoD Architecture Framework



OT&E V-Diagram



FCS Evaluation Strategy

