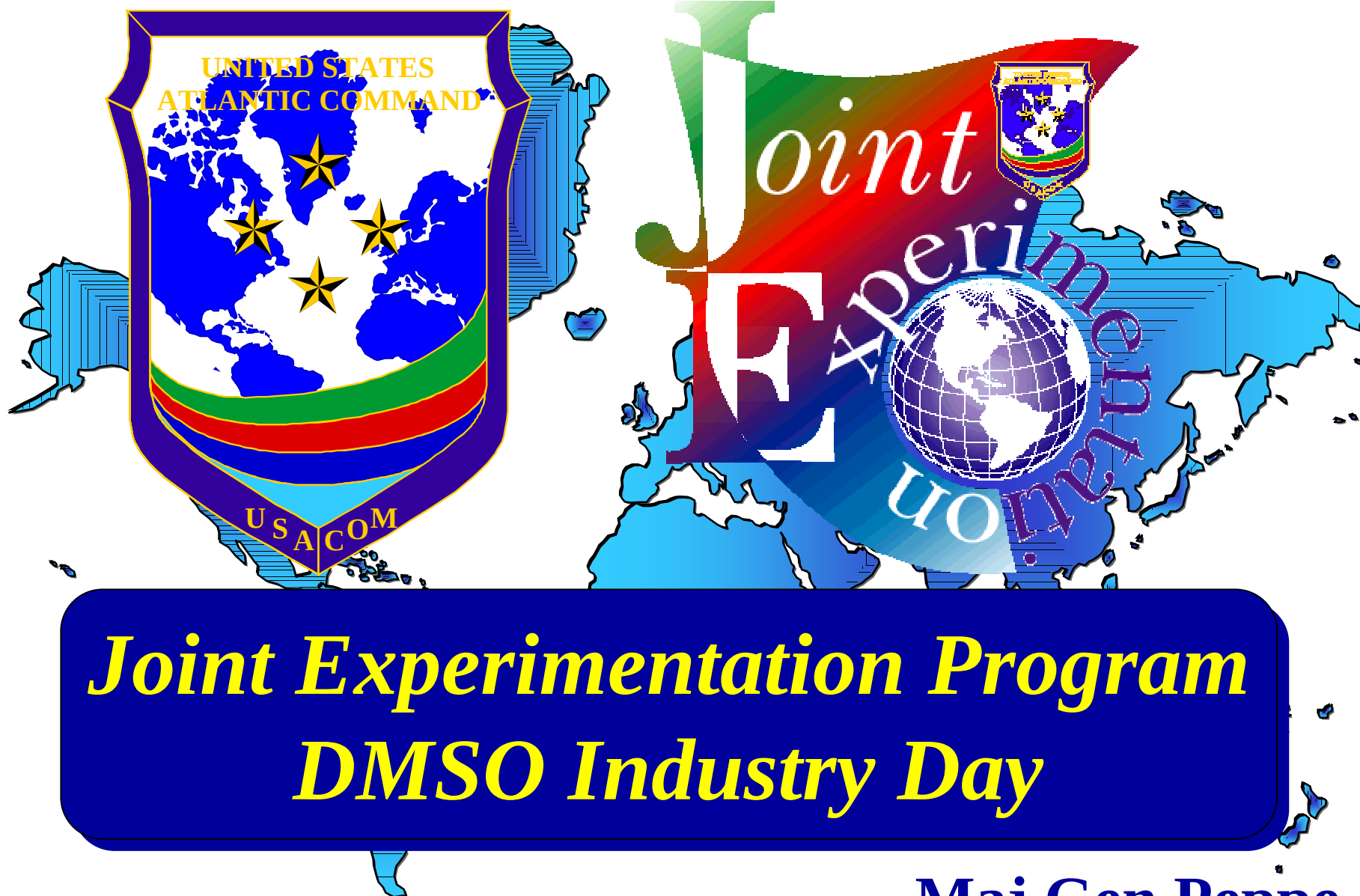




***Joint Experimentation Program
DMSO Industry Day***

**Maj Gen Peppe
4 Jun 1999**



Our Mission



Joint Experimentation

- **As SECDEF's Executive Agent for JE, USACOM:**
 - ▲ Supports implementation of JV2010 by developing a program of JE to achieve Desired Operational Capabilities
 - ▲ Gathers, creates, and explores new Joint Concepts for JE
 - ▲ Supports, integrates and leverages CINCs / Services / Agencies (C/S/A) experimentation programs to synchronize efforts and provide a joint context for experimentation
 - ▲ Conducts joint experiments
 - ▲ Aggressively conducts joint experimentation events to assess joint concepts and capabilities and recommend most promising for implementation

The Future is our Area of Responsibility!

*Adm. Gehman
10 Sep 1998*

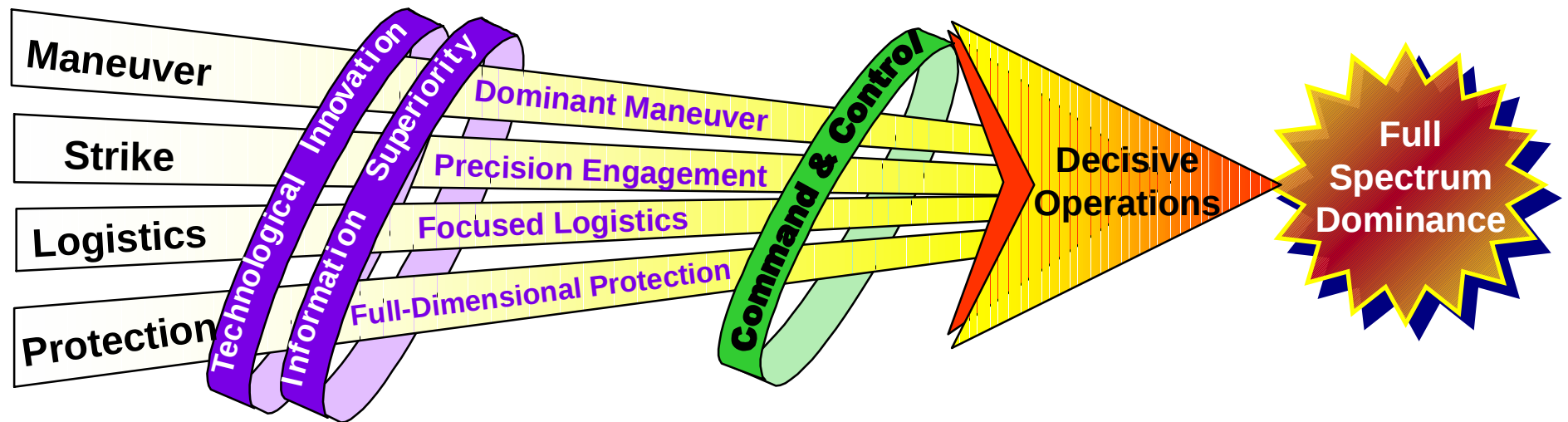


Joint Experimentation Definition

Joint Experimentation



Joint Experimentation is an *iterative process* of collecting, developing and exploring *concepts* to identify and recommend the *better value-added solutions* for changes to DOTMLP required to achieve *significant advances* in future joint operational capabilities.





Why Joint Experimentation?



Joint Experimentation

- **Primary and Enduring Reasons for Joint Experimentation:**
 - ▲ **Prevent Adversarial Surprises**
 - ▲ **Maintain Superiority**
 - ◆ **Explore Innovative Approaches and “Leap-Ahead” Capabilities**
 - ◆ **Exploit Opportunities for Transformation**



Transformation - Experimentation's Objective



Joint Experimentation

Why transform?

- ▲ Opponents are being driven by US superiority to pursue asymmetric options
- ▲ US advantages are eroding as military technology...
 - ◆ ... migrates to commercial sector (*GPS, satellite imagery, night vision, secure communication*)
 - ◆ ... or spreads via the international arms market (*counter-stealth radar, precision munitions*)
- ▲ Mass casualty weapons make actionable warning time uncertain & accelerated response capability critical
- ▲ Cost of current operations & readiness of legacy force restricts investment in future force
- ▲ Casualty risks, opponents' escalation options, & likely international political pressures demand quick, decisive resolution of armed conflicts
- ▲ Becoming harder to contain trouble-makers everywhere due to cost & force dissipation



Keys to Successful Military Innovation

Joint Experimentation



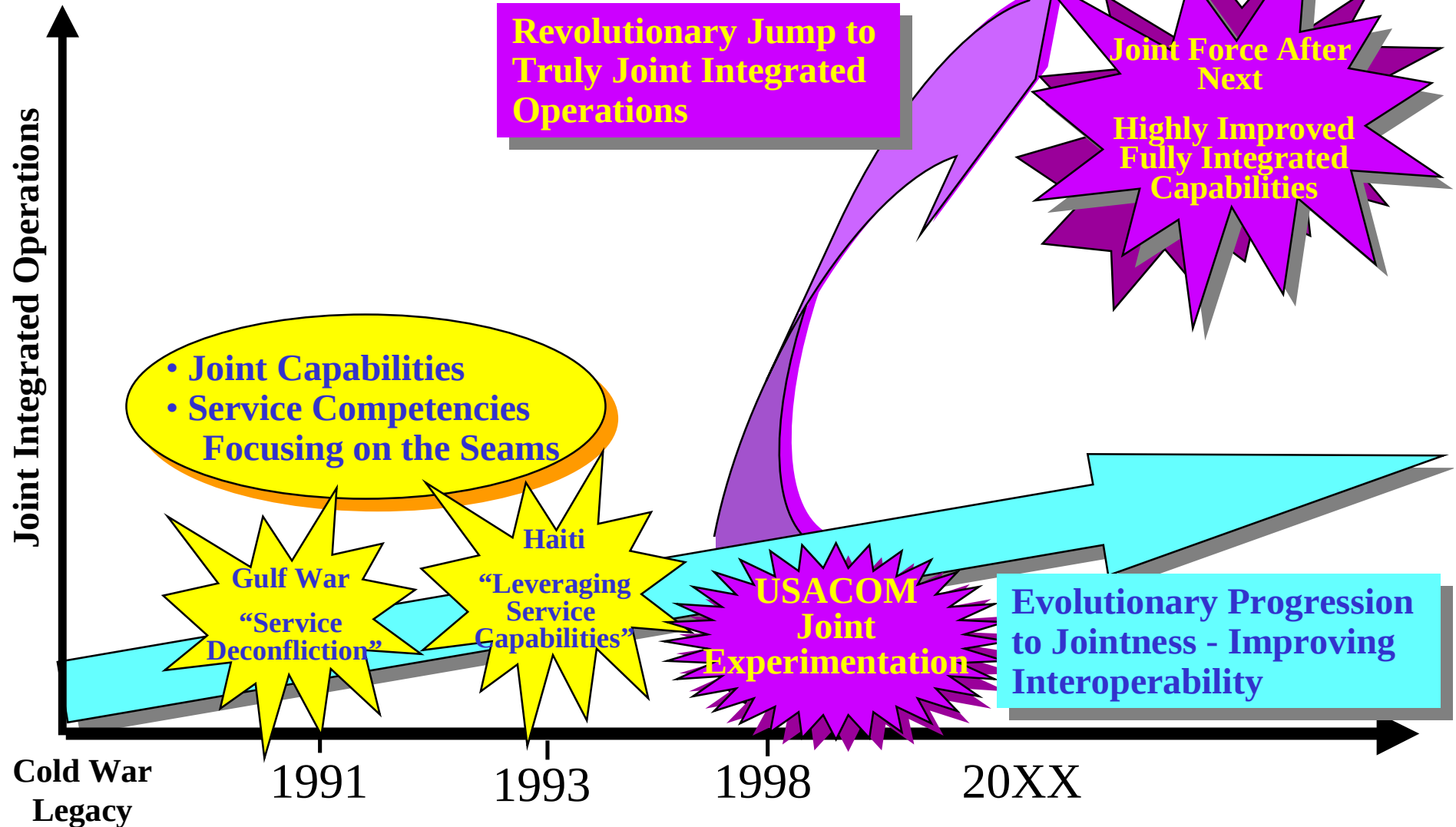
- **Compelling Strategic Vision**
- **Wildcatting, Critical Mass of Thinkers and Innovators**
- **Senior Sponsorship, Some Top Cover**
- **Longevity**
- **No Fear of Failure**
- **Avoid “Locking-in”**
- **Mechanisms for Feedback**



Evolutionary Steps to a Revolutionary Capability



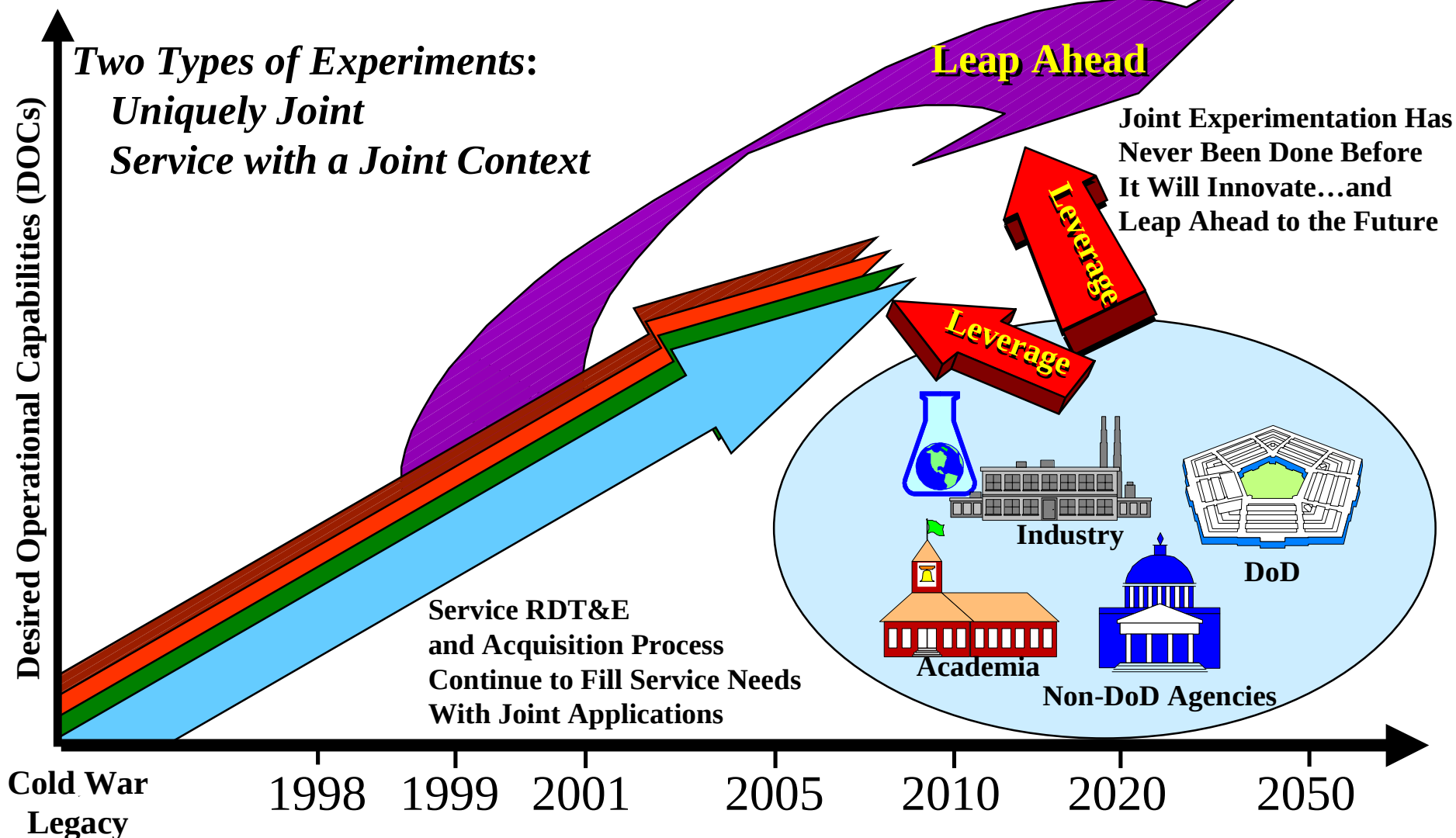
Joint Experimentation





Types of Joint Experiments

Joint Experimentation



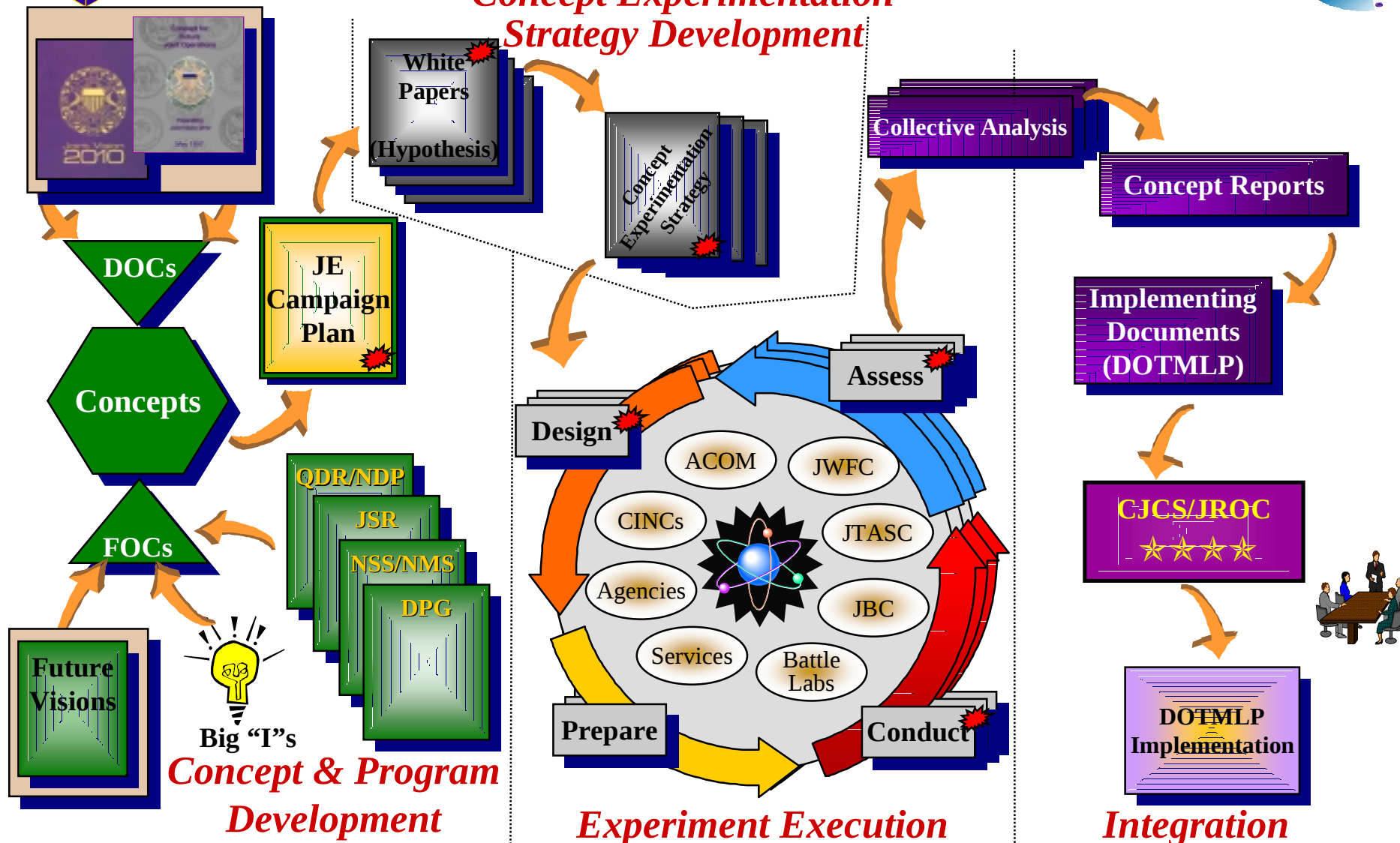


Overview of the Process



Joint Experimentation

Concept Experimentation Strategy Development



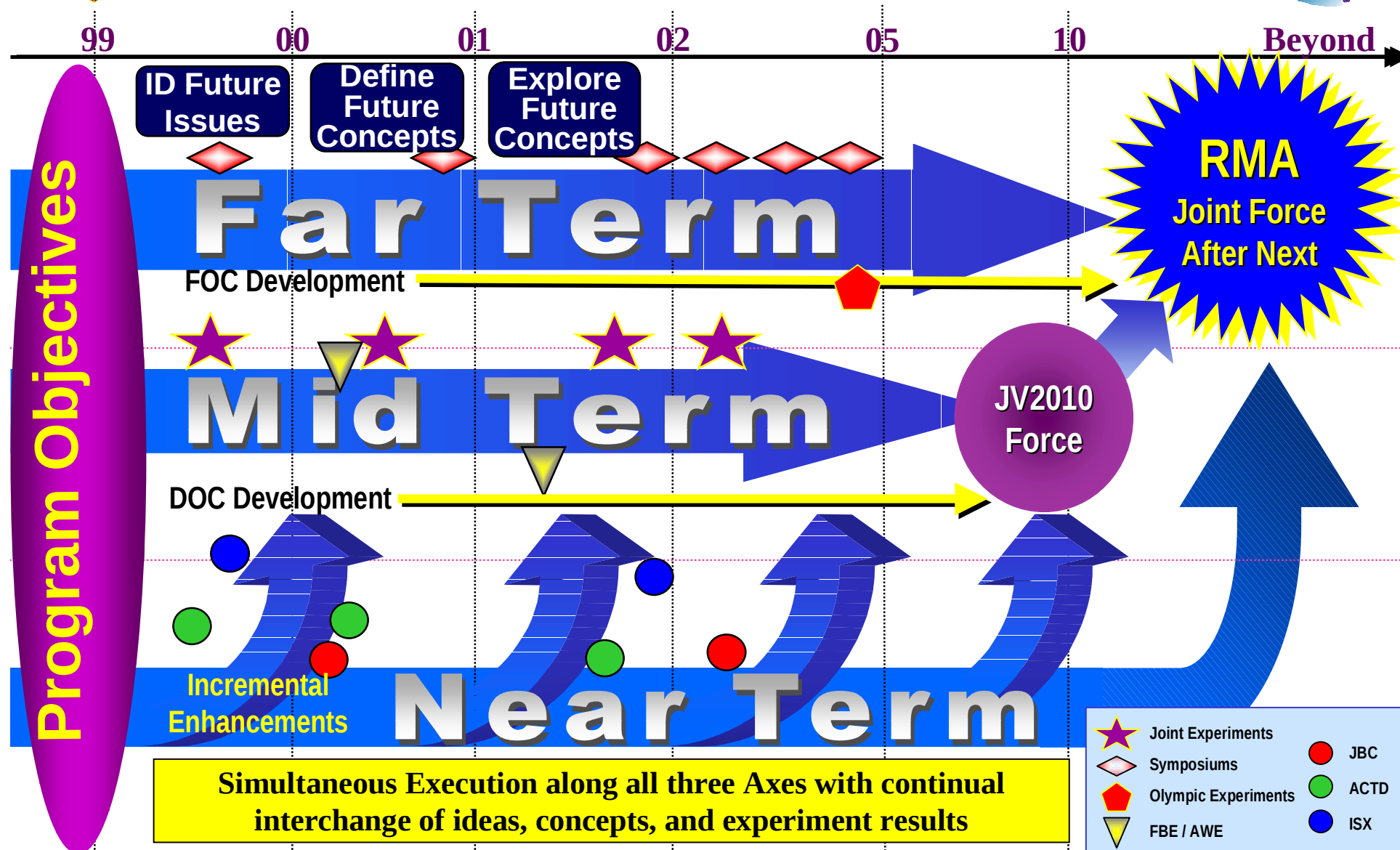
Indicates Potential Areas for Red Teaming



Campaign Plan Methodology



Joint Experimentation





ACOM Approach to Selecting an Initial Set of Concepts



Joint Experimentation

- **A Portfolio of Concepts**
 - ▲ Heavily Focused on JV 2010 Venue
 - ▲ But Also Includes Some Nearer and Farther-out Ideas
- **Each Candidate also:**
 - ▲ Broadly Applicable to Higher Level Concepts, or
 - ▲ Addresses Major Vulnerabilities/Asymmetries, High Priority Challenges, and
 - ▲ Enabled by Technology in the Pipeline
 - ▲ Offers Opportunities to Co-Evolve DOTMLP (Art of War, Not Just Technologies)
 - ▲ Compatible with Planned Experimental Opportunities
 - ▲ Leverages Ongoing Activities, e.g., DSB Studies, DPG Studies



Concept Winnowing CPLAN 99

Joint Experimentation



Concept Harvesting

Futures Workshops

Studies

ACTDs

Services

Other Agencies

Winnowing/Combining

Concept Selection Conf

Event Selection Conf

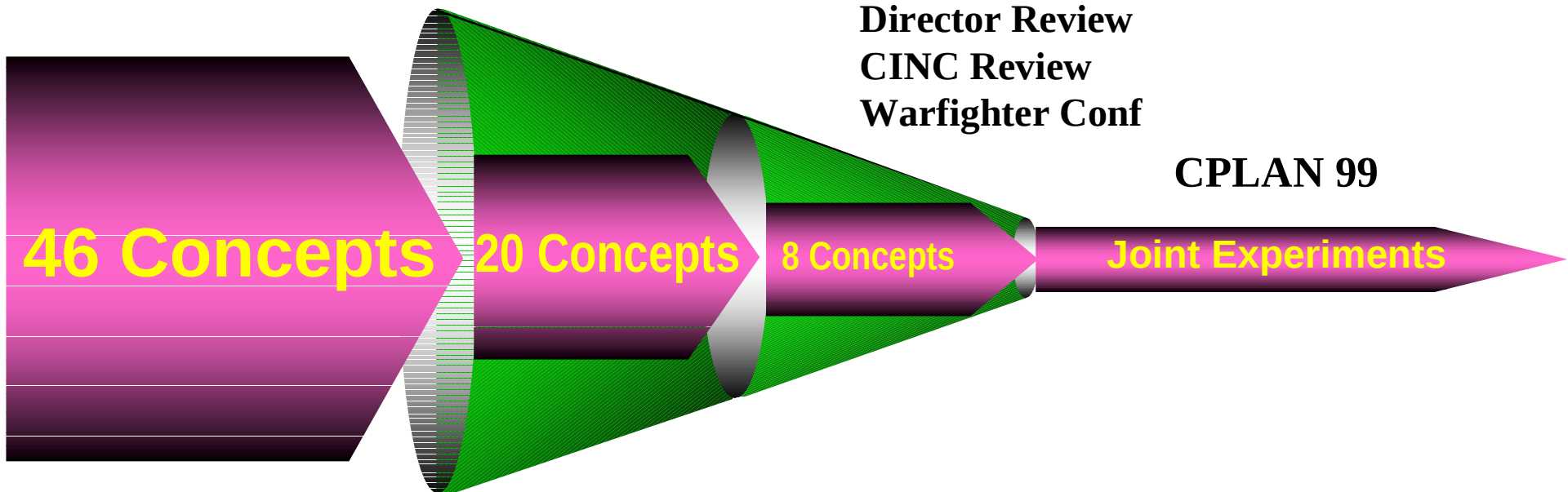
Final Selection

Director Review

CINC Review

Warfighter Conf

CPLAN 99



**Concepts merged, eliminated, or selected based upon Joint Experimentation
Criteria**



Nine Supporting Concepts

Joint Experimentation



- **Attack Ops Against Critical Mobile Targets**
- **Collaborative Information Sharing & Planning**
- **Common Relevant Operational Picture**
- **Adaptive Joint Command and Control**
- **Focused Logistics: Enabling Early Decisive Operations**
- **Surveillance and Fires from Space**
- **Information Operations**
- **Forced Entry Operations**
- **Strategic Deployment**



21st Century Challenges



Joint Experimentation

Battlespace Awareness (IS)

Information Transport & Processing (IS)

Information Operations (IS)

Joint Command & Control (FSD)

Joint Theater Logistics Management System (FL)

Combat Identification (FDP)

Integrate Precision Effects (PE)

Decisive Combat Operations (DM)

Information Fusion (FL)

Joint Deployment & Rapid Distribution (FL)

Force Medical Protection (FL)

Combating Terrorism (FDP)

Agile Infrastructure (FL)

Multinational Logistics (FL)

Countering Air & Missile Threats (FDP)

Crisis Stabilization (DM)

Generate Precision Effects (PE)

Shape the Environment (FSD)

Unified Action (FSD)

Rapid Joint Force Projection (DM)

Battlespace Control (DM)

**Attack Ops against
Critical Mobile Targets**

**Focused Logistics: Enabling
Early Decisive Operations**

Attack Operations Against Critical Mobile Targets

Despite arms control, the proliferation of both conventional weapons and weapons of mass effects (WME)--capable of being launched by a variety of mobile platforms--will continue well into the 21st Century. Rapid, effective operations to neutralize critical mobile air, surface, sub-surface, and space targets, particularly those that can deliver WME, are essential to the success of future joint operations.



Effective operations against these targets will depend on the synergistic effects achieved by improving three critical components: **intelligence, surveillance, and reconnaissance (ISR); command and control (C2); and weapons systems**. This will allow immediate identification and continuous tracking of critical targets, time-sensitive decision making, and engagement with precise, retargetable, and immediately responsive weapons and offensive information operations.

The Result: Neutralization of critical mobile targets before or soon after WME launch.

21st Century Environment

- The proliferation of WME will continue. The number of nuclear-capable states will expand. Some will attempt to acquire or create both conventional and unconventional WME delivery systems. Proliferation of theater ballistic and cruise missiles--delivered from a variety of platforms--will increase the vulnerability of US and allied military forces and jeopardize access to forward bases.

JV 2010's 21st Century Challenges

- Countering Air & Missile Threats

Desired Capabilities

- The ability to detect, identify & track critical mobile air, sea and land targets in both pre- and post-launch phases
- Cross-sensor cueing; automatic target recognition systems; enhanced data links
- Common Relevant Operational Picture
- Enhanced decision support tools
- Dynamic tasking of rapid, long-range, accurate and flexible engagement systems
- The ability to dynamically re-task assets and to provide immediate updates to the control center

Hypothesis

IF we can--

- Establish a network of sensors that will detect, identify, and continuously track time-critical mobile targets;
- Employ an advanced joint C2 system that provides for near instantaneous sensor-to-shooter data flow;
- Engage with high-speed, long-range, accurate weapons;

THEN we can destroy critical mobile targets before or soon after launch.

Objectives

- Reduction of the TBM threat
- Greater success in early entry and closure of the joint force into the area of operations
- Protection of the logistics flow
- Increased freedom of maneuver
- Higher tempo operations
- Precise, unrelenting application of effects

Enabling

- Dominant Maneuver, Precision Engagement, and Full-dimensional Protection



FY 1999 Events



Joint Experimentation

	USACOM Generated Experiments Major Leveraging Experiments Minor Leveraging Experiments			Attack Operations Against Critical Mobile Targets	Collaborative Information Sharing and Planning	Rapid Decisive Operations	Focused Logistics: Enabling Early Decisive Operations	Common Relevant Operational Picture (CROP)	Adaptive Joint C2	Surveillance and Fires from Space	Information Operations	Forcible Entry Operations	Strategic Deployment
Experimentation Events		FY/Qtr	Total	E01	E02	E03	E04	E05	E06	E08	E09	E10	E11
FY 2005													
L0501	Cyber/Ultimate Warrior, USMC	2005-1	3		XXX		XXX				XXX		
L0502	Fleet Battle Experiment- Pappa	2005-1	3	XXX	XXX		XXX						
L0503	Global Engagement, USAF	2005-1	2	XXX						XXX			XXX
J0504	S&FFS Symposium 6, USACOM	2005-2	2						XXX	XXX			
L0505	Agile Lion	2005-2	2					XXX	XXX				
L0506	Cyber/Ultimate Warrior, USMC	2005-2	1								XXX		
L0507	FLOW 05	2005-2	1				XXX						XXX
L0508	Cyber/Ultimate Warrior, USMC	2005-3	1			XXX							
J0509	JTFEX 05-02, USACOM	2005-3	1								XXX		
L0510	Fleet Battle Experiment- Quebec	2005-3	3	XXX	XXX			XXX					
J0511	Roving Sands, USACOM	2005-3	2			XXX		XXX				XXX	XXX
J0512	S&FFS Wargame 6, USACOM	2005-3	1						XXX	XXX			
J0513	Minor Joint Integrating Event, USACOM	2005-4	8	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
L0514	Cyber/Ultimate Warrior, USMC	2005-4	1								XXX		
L0515	Global Wargame, NDU	2005-4	2	XXX					XXX				
L0516	Foal Eagle, USFK	2005-4	1				XXX						XXX



JE Futures Program



Joint Experimentation

JE Futures Program will “establish a baseline for projections of the future security environment and develop revolutionary ideas that support an aggressive approach toward the RMA.”

Far term experiments explore revolutionary ideas and future technologies. We will use experiments where possible but wargames, workshops, and seminars will be the most common evaluation model.

**Admiral Harold W. Gehman, Jr.
10 September 1998 - NDU**



Far-Term Axis Focus Areas

Joint Experimentation



- Autonomous Operations (2-3 Mar)
- Bio-Centric Operations (3-4 Mar)
- Mastery of Information (4-6 May)
- Global Power Projection (2-4 Jun)
- Weapons of Mass Effects (29-30 Jun)
- Space Operations (29-30 Jun)
- Operational & Strategic Sanctuaries (10-12 Aug)
- Organizing for Military Operations (All)
- Policy Issues (All)

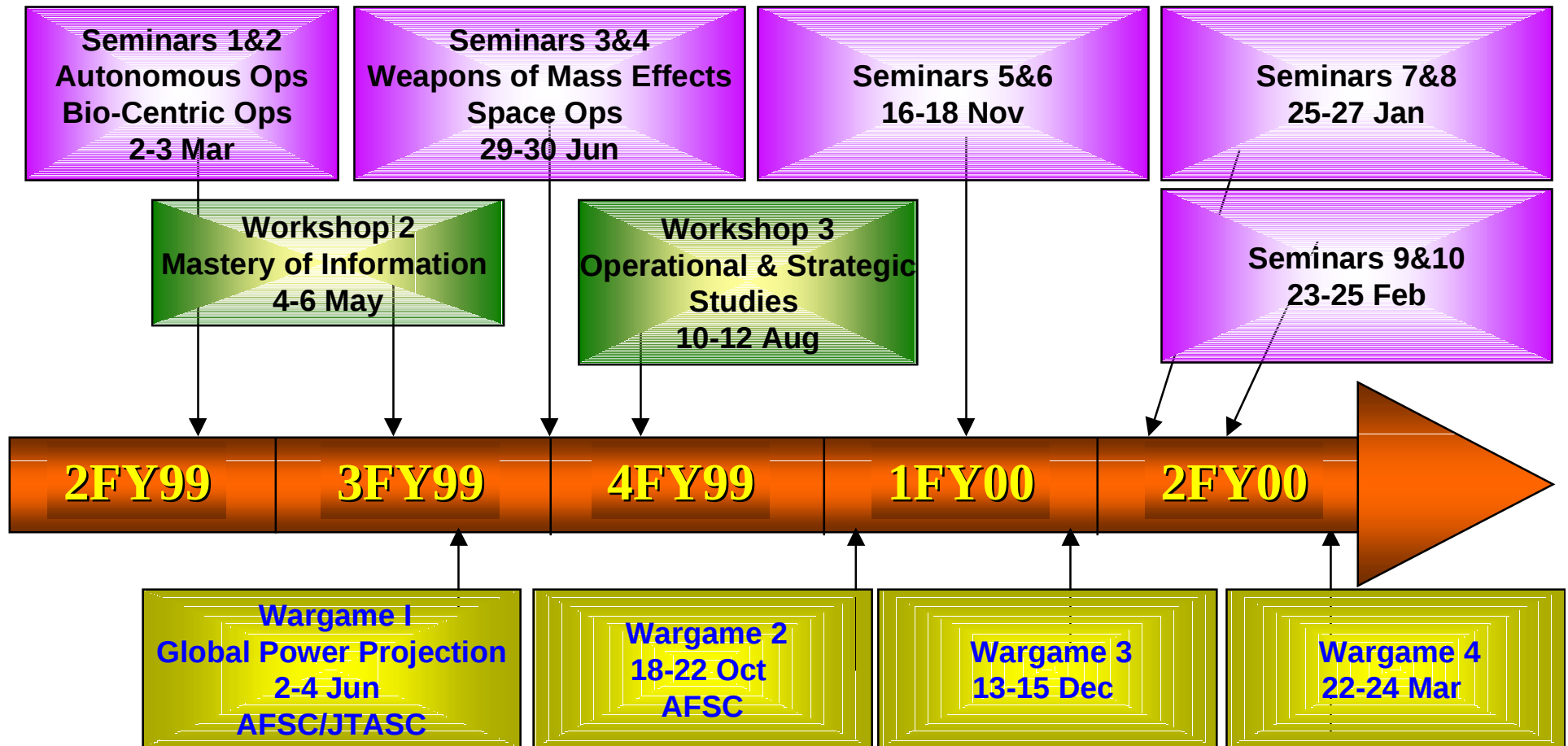
Seminar
Workshop
Wargame



Futures Program Timeline



Joint Experimentation



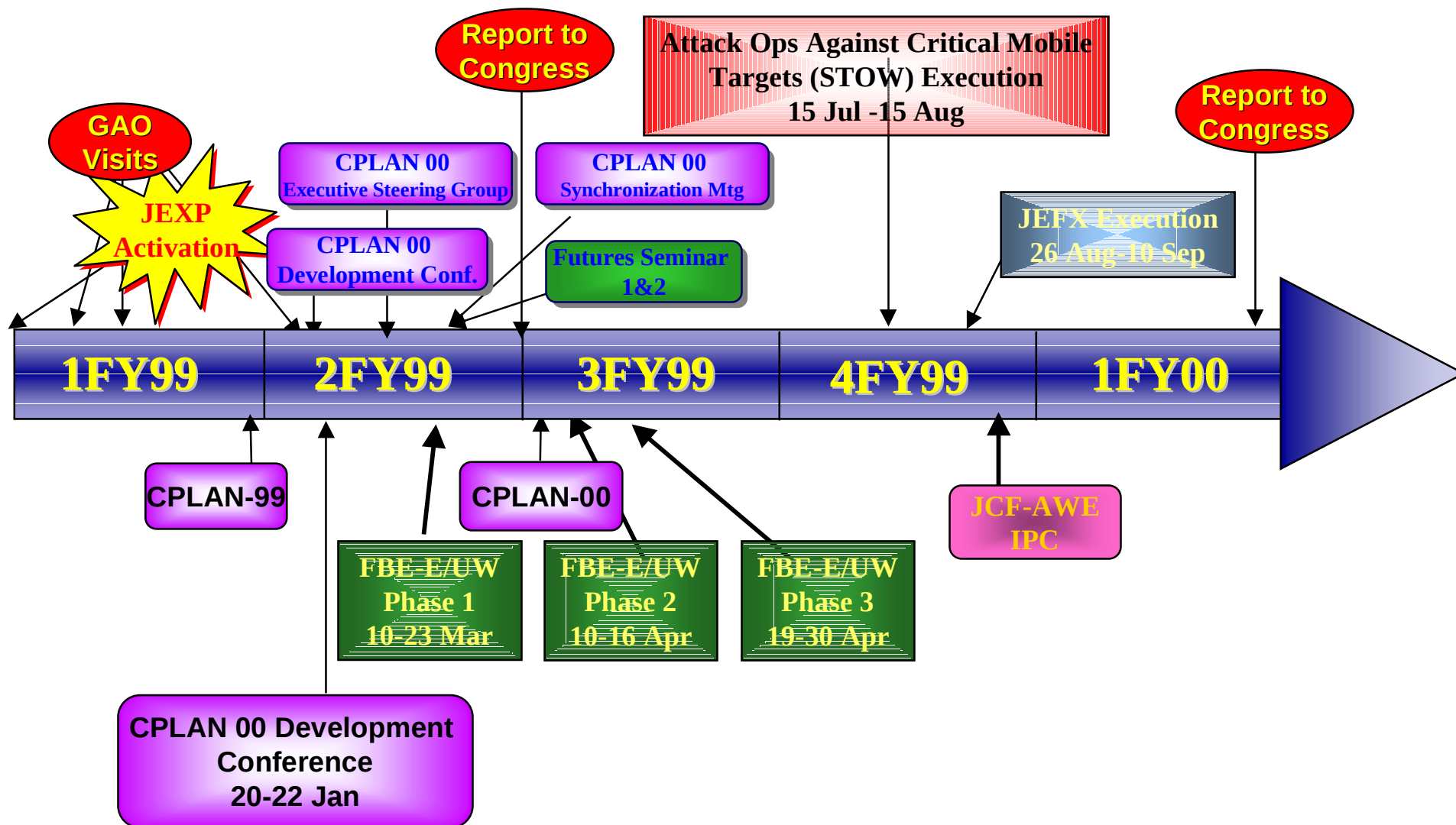
- Organizing for Military Operations (All)
- Policy Issues (All)



Action Milestone Events



Joint Experimentation





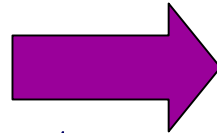
Joint Experimentation USE of MODELS and SIMULATIONS



Joint Experimentation

• **WE'RE NOT:**

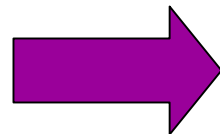
- Another Simulation Center
- Simulation Developers
- Simulation Acquirers
- Simulation “Owners”



- Will rely on JWFC, Services, and others to develop/acquire M&S
- Will rely on JTASC, labs and others to provide the simulation-event services

• **WE ARE:**

- M&S Users
- Federation Designers



- Use DOD Technical M&S Architecture HLA, MSRR, Data Dictionary, SEDRIS, etc
- Use Information Technology Backplane to view our joint distributed federations
- Use the right simulation tool to “best fit” the JE concept based experiment
- Conduct VV&A to ensure the M&S tool meets the need
- Articulate JE-unique M&S requirements and find a support structure



M&S Requirements Supporting Joint Experimentation



- **Legacy and Future simulations**
 - J9 will identify joint **experimentation-unique** requirements for on-going simulation programs such as JWARS and JSIMS
 - Focus on ensuring simulation flexibility capable of handling “future **jointness**” ideas (DOTMLP)
- **Ability to quickly modify and move scenarios** to/from JWARS, JSIMS and other HLA-compliant simulations
- Ability to study “**Doctrine**” and “**Organizational**” issues
- Ability to study “**Training**” issues to include effectiveness
- **Flexibility** to create new weapons, new force structures, new weapon behaviors, new unit behaviors

Flexibility is key!



M&S Tools Supporting Joint Experimentation



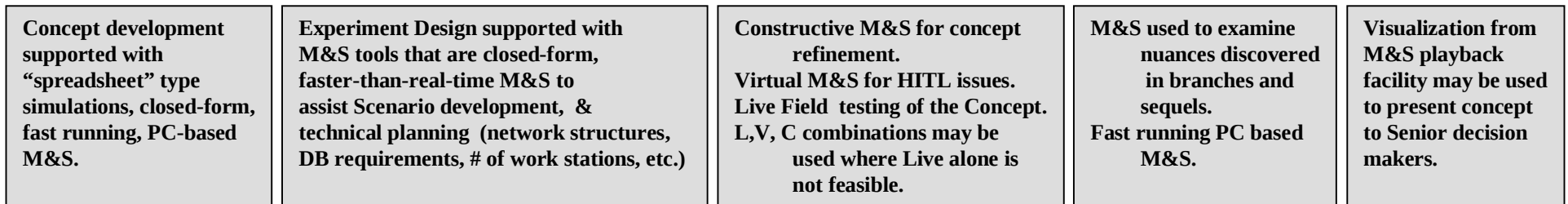
White Paper
Experimentation Strategy
Hypotheses
MOEs/MOPs
Annex M&S Plan:
- M&S Requirements
- M&S Candidates

Event n:
Event 2:
Event 1:
Operational design (event specific)
Scenario
(Forces, Time, WX, Terrain)
Event Hypothesis
MOEs/ MOPs for the event
Technical design
M&S selection
M&S prep
Data Storage Plan
V&V Report

Event 1 Execution:
Accreditation Report
Technical bridge from technical
team to operational team.
Answer M&S algorithm questions.

Integration of Events' results
form recommendation(s)
to CJCS/JROC.

Event n
Event 2
Event 1 Assessment:
Data Reduction/ Analysis tools
Support.
Data Storage and archiving.
Reruns and Playback facilities.



DOD Technical Framework



M&S Vision

JE Technical Framework



Joint Experimentation

- **DOD Technical Framework**
 - ▲ High-Level Architecture (HLA) Federations
 - ▲ Consistency with DOD Data Dictionary
 - ▲ Ability to download and use M&S tools from DOD MSRR
- **JOINTNESS with Doctrine/Organization flexibility**
- **HLA-based tools**
 - ▲ Federation Design, Validation, Execution, Data Collection, etc
- **Standards that support “scenario agility”**
 - ▲ SEDRIS
 - ▲ Unit Order of Battle
- **Data Mining, Reduction, and Analysis Tools**

*Federates, Federations, and Data reduction and analysis tools
that use these standards will be our tools of choice.*



J9901 - Attack OPS M&S Tools



Joint Experimentation

- **SLAMEM - Constructive Simulation.**

- ▲ Can the system maintain track of a significant number of targets with a feasible sensor mix?
 - Number / type / location performance of sensors
 - Sensor CONOPS
 - Sensor Management for cross cueing sensor types / platforms
 - Required ATR / Fusion algorithm performance
 - Effect of target - sensor interactions
 - Foliage / CC&D / Jamming / Weather / Clutter / Urban / Mountain



J9901 - Attack OPS M&S Tools



Joint Experimentation

•STOW Federation w/ SLAMEM sensors

Can the warfighter make operationally useful decisions?

Can humans absorb, manage, and make use of the
information generated by the sensor suites?

Can humans recognize patterns over time?

Is the data presented effectively for human interpretation?

How do Blue and Red interact in a dynamically changing,
“free play” environment?

What is the impact of unanticipated Red tactics / reactions?

What organization structure, CONOPS, TTP, etc.
does Blue need to use to be most effective?

•AO Excursions on the drawing board

Extended Air Defense Test Bed (EADTB)

Pegasus Federation (Eagle, NSS and EADSIM)



Wrap-Up

Joint Experimentation



- **Questions**
- **Discussion**

Joint Experimentation

From Today's Concepts to Tomorrow's Capabilities



Opportunities Abound for USACOM...

The Future is Our Area of Responsibility.



Joint Experimentation



Backups



21st Century Challenges



Joint Experimentation

Adaptive Joint Command & Control

Battlespace Awareness (IS)

Information Transport & Processing (IS)

Information Operations (IS)

Joint Command & Control (FSD)

Joint Theater Logistics Management System (FL)

Combat Identification (FDP)

Integrate Precision Effects (PE)

Decisive Combat Operations (DM)

Collaborative Information Sharing & Planning

Information Fusion (FL)

Joint Deployment & Rapid Distribution (FL)

Force Medical Protection (FL)

Combating Terrorism (FDP)

Agile Infrastructure (FL)

Multinational Logistics (FL)

Countering Air & Missile Threats (FDP)

Crisis Stabilization (DM)

Generate Precision Effects (PE)

Shape the Environment (FSD)

Unified Action (FSD)

Rapid Joint Force Projection (DM)

Battlespace Control (DM)

Surveillance & Fires from Space



21st Century Challenges



Joint Experimentation

Battlespace Awareness (IS)

Information Transport & Processing (IS)

Information Operations (IS)

Joint Command & Control (FSD)

Joint Theater Logistics Management System (FL)

Combat Identification (FDP)

Integrate Precision Effects (PE)

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Combating Terrorism (FDP)

Agile Infrastructure (FL)

Multinational Logistics (FL)

Countering Air & Missile Threats (FDP)

Crisis Stabilization (DM)

Generate Precision Effects (PE)

Shape the Environment (FSD)

Unified Action (FSD)

Rapid Joint Force Projection (DM)

Battlespace Control (DM)

Common Relevant Operational Picture

Rapid Decisive Operations (Many)



Joint Experimentation

CP00 1.21
6/1/99



Joint Experimentation

CP00 1.21A
6/1/99



FY 2000 Events (cont.)



Joint Experimentation

	USACOM Generated Experiments Major Leveraging Experiments Minor Leveraging Experiments			Attack Operations Against Critical Mobile Targets	Collaborative Information Sharing and Planning	Rapid Decisive Operations	Focused Logistics: Enabling Early Decisive Operations	Common Relevant Operational Picture (CROP)	Adaptive Joint C2	Surveillance and Fires from Space	Information Operations	Forcible Entry Operations	Strategic Deployment
				E01	E02	E03	E04	E05	E06	E08	E09	E10	E11
		FY/Qtr	Total	FY 2000									
J0022	S&FFS Wargame 1, USACOM	2000-3	1							XXX			
L0023	Fleet Battle Experiment- Golf, USN	2000-3	2	XXX	XXX								XXX
M0006	JCF AWE with EFX-00 / FBE-H / Capable Warrior / MOUT ACTD, Army / USAF / USN / USMC	2000-4	7	XXX	XXX	XXX	XXX	XXX	XXX		XXX	XXX	XXX
L0024	JWID 00, USSPACECOM	2000-4	3	XXX						XXX	XXX		
L0025	VIC Olympic Exercise in conjunction with Tempo Brave, USPACOM	2000-4	1		XXX								
L0026	Global Wargame, NDU	2000-4	2	XXX							XXX		
J0027	Evident Surprise 00, USACOM		1								XXX		
L0028	Joint Command Post Exercise, Army	2000-4	2		XXX				XXX				



FY 2001 Events



Joint Experimentation

	USACOM Generated Experiments Major Leveraging Experiments Minor Leveraging Experiments			Attack Operations Against Critical Mobile Targets	Collaborative Information Sharing and Planning	Rapid Decisive Operations	Focused Logistics: Enabling Early Decisive Operations	Common Relevant Operational Picture (CROP)	Adaptive Joint C2	Surveillance and Fires from Space	Information Operations	Forcible Entry Operations	Strategic Deployment				
				E01	E02	E03	E04	E05	E06	E08	E09	E10	E11				
				Experimentation Events		FY/Qtr	Total										
				FY 2001													
L0101	Atlantic Resolve, USEUCOM	2001-1	1		XXX												
L0102	Foal Eagle, USFK	2001-1	1				XXX						XXX				
L0103	Global Engagement Wargame, USAF	2001-1	3	XXX						XXX	XXX						
L0104	Capable Warrior, USMC	2001-1	3		XXX			XXX	XXX								
J0105	S&FFS Symposium 2, USACOM	2001-1	1							XXX							
L0106	AEROSPACE FUTURE CAPABILITIES Wargame	2001-2	2	XXX						XXX			XXX				
L0107	Flow 2001, JS J-4	2001-2	7	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX		XXX				
L0108	Division Capstone Exercise, Army	2001-2	1								XXX	XXX					
J0109	ASCIET 01, USACOM	2001-2	2		XXX			XXX									
J0110	Unified Endeavor, USACOM	2001-2	1					XXX									



FY 2001 Events (cont.)



Joint Experimentation

				Attack Operations Against Critical Mobile Targets	Collaborative Information Sharing and Planning	Rapid Decisive Operations	Focused Logistics: Enabling Early Decisive Operations	Common Relevant Operational Picture (CROP)	Adaptive Joint C2	Surveillance and Fires from Space	Information Operations	Forcible Entry Operations	Strategic Deployment			
				E01	E02	E03	E04	E05	E06	E08	E09	E10	E11			
USACOM Generated Experiments Major Leveraging Experiments Minor Leveraging Experiments																
Experimentation Events				FY/Qtr	Total											
FY 2001																
J0111	Agile Lion 2001 with Capable Warrior, USACOM / USEUCOM / USMC	2001-2	8	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX				
J0112	Roving Sands 01, USACOM	2001-3	5	XXX		XXX		XXX		XXX	XXX	XXX	XXX	XXX		
L0113	ARMY SPACE GAME 5	2001-3	1								XXX					
J0114	S&FFS Wargame 2, USACOM	2001-3	1								XXX					
L0115	Fleet Battle Experiment- India, USN	2001-3	2		XXX	XXX										
J0116	AOACMT M&S Wargame, USACOM	2001-3	1	XXX												
J0117	JTFEX 01-02, USACOM	2001-3	1									XXX				
L0118	Capable/Coalition Warrior, USMC	2001-3	1			XXX										
L0119	Ulchi-Focus Lens, USPACOM	2001-4	3	XXX			XXX					XXX				



FY 2001 Events (cont.)



Joint Experimentation

				USACOM Generated Experiments Major Leveraging Experiments Minor Leveraging Experiments									
				Attack Operations Against Critical Mobile Targets	Collaborative Information Sharing and Planning	Rapid Decisive Operations	Focused Logistics: Enabling Early Decisive Operations	Common Relevant Operational Picture (CROP)	Adaptive Joint C2	Surveillance and Fires from Space	Information Operations	Forcible Entry Operations	Strategic Deployment
Experimentation Events				E01	E02	E03	E04	E05	E06	E08	E09	E10	E11
FY 2001													
L0120	ARMY AFTER NEXT Wargame	2001-4	2			XXX				XXX		XXX	XXX
J0121	RDO M&S Wargame, USACOM	2001-4	1			XXX							
L0122	Atlantic Resolve, USEUCOM	2001-4	2					XXX	XXX				
L0123	Global Wargame, NDU	2001-4	1	XXX									
L0124	Division Capstone Exercise, Army	2001-4	1			XXX						XXX	
L0125	Capable/Coalition Warrior, USMC	2001-4	1			XXX							XXX



FY 2002 Events



Joint Experimentation

	USACOM Generated Experiments Major Leveraging Experiments Minor Leveraging Experiments			Attack Operations Against Critical Mobile Targets	Collaborative Information Sharing and Planning	Rapid Decisive Operations	Focused Logistics: Enabling Early Decisive Operations	Common Relevant Operational Picture (CROP)	Adaptive Joint C2	Surveillance and Fires from Space	Information Operations	Forcible Entry Operations	Strategic Deployment		
				E01	E02	E03	E04	E05	E06	E08	E09	E10	E11		
				Experimentation Events		FY/Qtr	Total								
				FY 2002											
L0201	Fleet Battle Experiment- Juliet, USN	2002-1	1		XXX										
L0202	Global Engagement, USAF	2002-1	4	XXX					XXX	XXX	XXX				
J0203	JTFEX 02-01, USACOM	2002-1	1								XXX				
J0204	S&FFS Symposium 3, USACOM	2002-1	1							XXX					
L0205	AEROSPACE FUTURE CAPABILITIES Wargame	2002-2	2	XXX						XXX			XXX		
L0206	ARMY SPACE GAME 6	2002-2	1							XXX					
L0207	Coalition/Joint Warrior, USMC	2002-2	1			XXX									
L0208	Strike Force AWE, Army	2002-2	1			XXX						XXX	XXX		
L0209	FLOW 02, JS J-4	2002-2											XXX		
L0210	Brave Knight	2002-3	1					XXX							
L0211	Coalition/Joint Warrior, USMC	2002-3	2		XXX		XXX								
L0212	Fleet Battle Experiment- Kilo, USN	2002-3	3	XXX	XXX		XXX								
J0213	Roving Sands 02, USACOM	2002-3	2					XXX			XXX				
J0214	AOACMT M&S Wargame, USACOM	2001-3	1	XXX											
L0215	ARMY AFTER NEXT WARGAME	2002-3	2			XXX				XXX		XXX			
J0216	S&FFS Wargame 3, USACOM	2002-3	1							XXX					
L0217	Coalition/Joint Warrior, USMC	2002-4	3			XXX	XXX	XXX							
L0218	JEFX 02, USAF	2002-4	5	XXX	XXX	XXX	XXX	XXX					XXX		
J0219	RDO JF Exercise, USACOM	2002-4	2			XXX			XXX			XXX			
L0220	Global Wargame, NDU	2002-4	1	XXX											



FY 2003 Events



Joint Experimentation

				Attack Operations Against Critical Mobile Targets	Collaborative Information Sharing and Planning	Rapid Decisive Operations	Focused Logistics: Enabling Early Decisive Operations	Common Relevant Operational Picture (CROP)	Adaptive Joint C2	Surveillance and Fires from Space	Information Operations	Forcible Entry Operations	Strategic Deployment
Experimentation Events		FY/Qtr	Total	E01	E02	E03	E04	E05	E06	E08	E09	E10	E11
FY 2003													
L0301	Joint Warrior, USMC	2003-1	2		XXX		XXX						
L0302	Fleet Battle Experiment- Lima	2003-1	4	XXX	XXX		XXX	XXX	XXX				
L0303	Global Engagement, USAF	2003-1	3	XXX						XXX	XXX	XXX	XXX
J0304	S&FFS Symposium 4, USACOM	2003-2	1							XXX			
L0305	Joint Warrior, USMC	2003-2	1				XXX						XXX
L0306	FLOW 03, JS J-4	2003-2	1				XXX						XXX
L0307	Joint Warrior, USMC	2003-3	1				XXX						XXX
L0308	Fleet Battle Experiment- Mike	2003-3	3	XXX	XXX	XXX							
J0309	Roving Sands 03, USACOM	2003-3	2			XXX		XXX					
J0310	S&FFS Wargame 4, USACOM	2003-3	1							XXX		XXX	
L0311	Joint Warrior, USMC	2003-4	4			XXX	XXX	XXX	XXX				
L0312	Ulchi Focus Lens, PACOM	2003-4	1								XXX		
J0313	Minor Joint Integrating Event, USACOM	2003-4	8	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
L0314	Global Wargame, NDU	2003-4	2	XXX					XXX				XXX



FY 2004 Events



Joint Experimentation

	USACOM Generated Experiments Major Leveraging Experiments Minor Leveraging Experiments			Attack Operations Against Critical Mobile Targets	Collaborative Information Sharing and Planning	Rapid Decisive Operations	Focused Logistics: Enabling Early Decisive Operations	Common Relevant Operational Picture (CROP)	Adaptive Joint C2	Surveillance and Fires from Space	Information Operations	Forcible Entry Operations	Strategic Deployment			
				E01	E02	E03	E04	E05	E06	E08	E09	E10	E11			
				Experimentation Events			FY/Qtr	Total								
				FY 2004												
L0401	Joint/Cyber Warrior, USMC	2004-1	3		XXX	XXX					XXX					
L0402	Fleet Battle Experiment- November	2004-1	2	XXX	XXX											
L0403	Global Engagement, USAF	2004-1	4	XXX					XXX	XXX	XXX	XXX	XXX			
J0404	S&FFS Symposium 5, USACOM	2004-2	1							XXX						
L0405	Joint/Cyber Warrior, USMC	2004-2	1		CNX						XXX					
L0406	Quick Force	2004-3	1					XXX								
L0407	Joint/Cyber Warrior, USMC	2004-3									XXX					
L0408	Fleet Battle Experiment- Oscar	2004-3	3	XXX	XXX	XXX										
J0409	Roving Sands 04, USACOM	2004-3	2			XXX		XXX				XXX				
J0410	S&FFS Wargame 5, USACOM	2004-3	1							XXX						
J0411	Major Joint Integrating Event, USACOM	2004-4	8	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX			
L0412	Joint/Cyber Warrior, USMC	2004-4	2					XXX			XXX					
L0413	JEFX 04, USAF	2004-4	5	XXX	XXX	XXX		XXX			XXX	XXX	XXX			
L0414	Global Wargame, NDU	2004-4	2	XXX							XXX	XXX				



FY 2005 Events



Joint Experimentation

	USACOM Generated Experiments Major Leveraging Experiments Minor Leveraging Experiments			Attack Operations Against Critical Mobile Targets	Collaborative Information Sharing and Planning	Rapid Decisive Operations	Focused Logistics: Enabling Early Decisive Operations	Common Relevant Operational Picture (CROP)	Adaptive Joint C2	Surveillance and Fires from Space	Information Operations	Forcible Entry Operations	Strategic Deployment				
				E01	E02	E03	E04	E05	E06	E08	E09	E10	E11				
				Experimentation Events		FY/Qtr	Total										
				FY 2005													
L0501	Cyber/Ultimate Warrior, USMC	2005-1	3		XXX		XXX				XXX						
L0502	Fleet Battle Experiment- Pappa	2005-1	3	XXX	XXX		XXX										
L0503	Global Engagement, USAF	2005-1	2	XXX						XXX			XXX				
J0504	S&FFS Symposium 6, USACOM	2005-2	2						XXX	XXX							
L0505	Agile Lion	2005-2	2					XXX	XXX								
L0506	Cyber/Ultimate Warrior, USMC	2005-2	1								XXX						
L0507	FLOW 05	2005-2	1				XXX						XXX				
L0508	Cyber/Ultimate Warrior, USMC	2005-3	1			XXX											
J0509	JTFEX 05-02, USACOM	2005-3	1								XXX						
L0510	Fleet Battle Experiment- Quebec	2005-3	3	XXX	XXX			XXX									
J0511	Roving Sands, USACOM	2005-3	2			XXX		XXX				XXX	XXX				
J0512	S&FFS Wargame 6, USACOM	2005-3	1						XXX	XXX							
J0513	Minor Joint Integrating Event, USACOM	2005-4	8	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX				
L0514	Cyber/Ultimate Warrior, USMC	2005-4	1								XXX						
L0515	Global Wargame, NDU	2005-4	2	XXX					XXX								
L0516	Foal Eagle, USFK	2005-4	1				XXX						XXX				