



Defense Modeling and Simulation Office

DoD M&S 2000

“Direction & Magnitude”

*Lead, Integrate & Leverage
Modeling & Simulation
for the Warfighter*

Agenda

- **Year in Review**
- **DMSO's Vector: Direction & Magnitude**
- **Assessment & Possible Opportunities**
- **Summary**

The Year in Review

Where have we been ?



NIS ARMY GARRISON NORTHWEST, SERBIA

POST STRIKE





























- 
- War in Kosovo
 - Peacekeeping in Bosnia
 - Disaster Relief in Africa
 - Vigilance in the Middle East
 - Humanitarian Assistance at Home & Abroad
 - Counter Terrorism
 - Counter Drug
 - Tensions in the South China Sea
 - Protecting Vital National Interests in Korea and Southwest Asia

... to name a few

M&S Support to the Warfighter

- **An invaluable tool to enhance combat effectiveness**
 - Training - Improve performance
 - Analysis - Improve decision making
 - Acquisition - Improve system(s) design
 - Experimentation - Explore and develop concepts
- **A feasible alternative to otherwise impossible demands**
 - Time and resource constraints
 - Cost factors
 - Safety considerations
- **Interoperability and reuse further enhance the investment**

M&S - A combat multiplier for the Warfighter

Challenges

- Array of issues facing our forces continues to expand
- Time to prepare, shape and respond is shrinking rapidly
- Information availability is increasing exponentially
- Technological capability far exceeds what's delivered
- Human capacity remains the common denominator

The Gap Continues to Widen

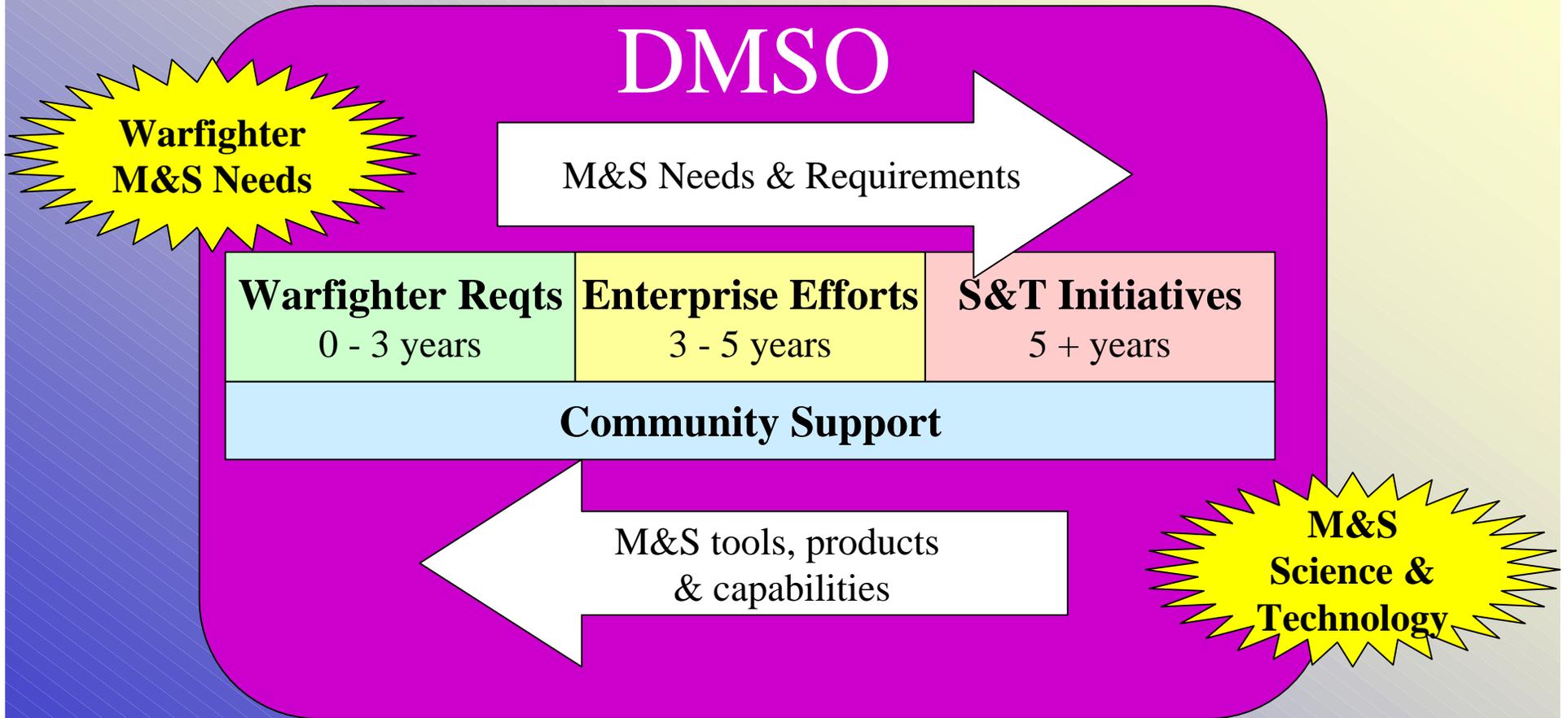
DMSO Vision

- **Lead and Integrate the DoD M&S community; and**
- **Leverage M&S science and technology advances**
- **to ensure that the Warfighters of today and tomorrow have superior and affordable M&S tools, products and capabilities to support their missions and to give them revolutionary war-winning capabilities.**

Lead, Integrate and Leverage M&S for the Warfighter



DMSO Strategic Concept



DMSO must have situational awareness of Warfighter needs and M&S S&T developments across the full spectrum of time

M&S Strategic Plan: New Vectors



S&T Initiatives

- S&T Focus Areas
- M&S Initiatives
- M&S Explorations

Community Support

- Education
- MSIAC
- MSRR

Warfighter Requirements

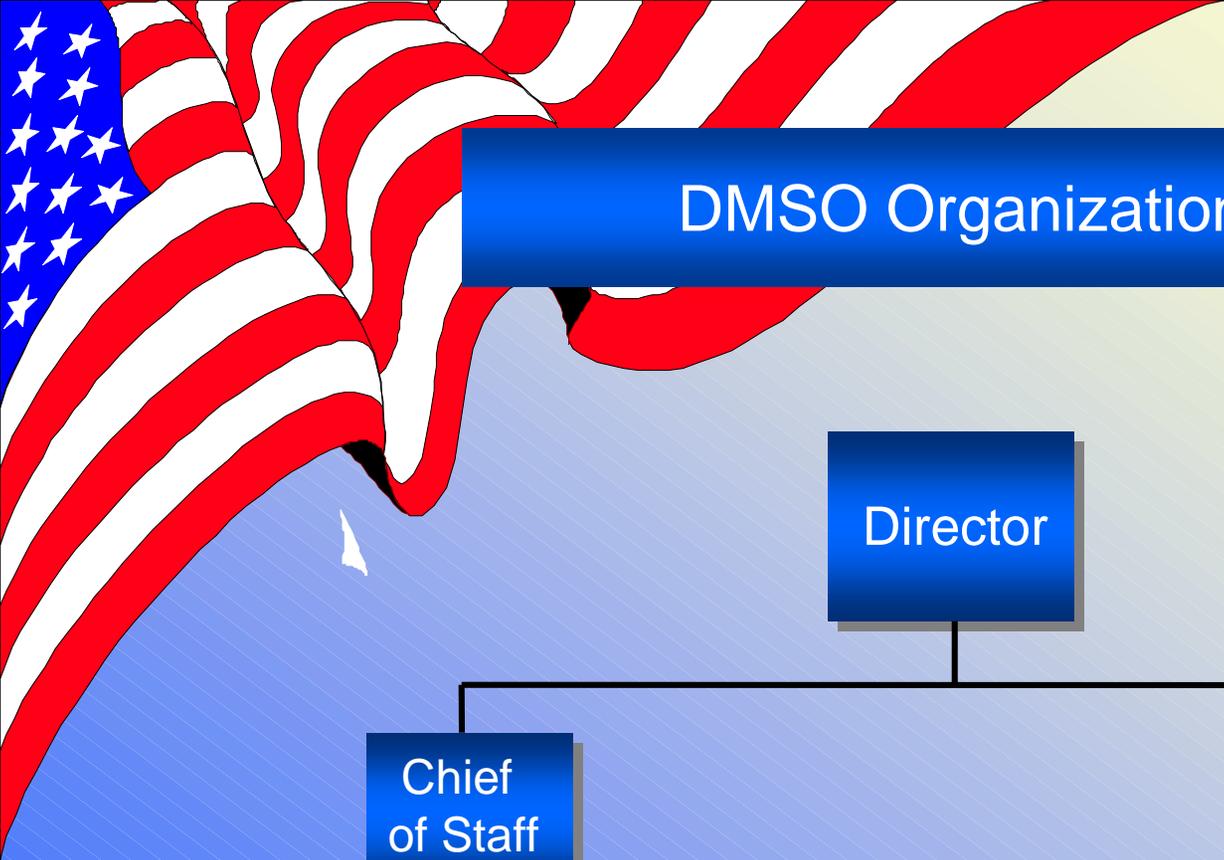
- C4I - Sim
- Joint Activities & Prgms
 - Unified Combatant Commands
 - JWFC
 - Joint Experimentation
 - JDS
- Service Coordination
- VV&A

Enterprise Efforts

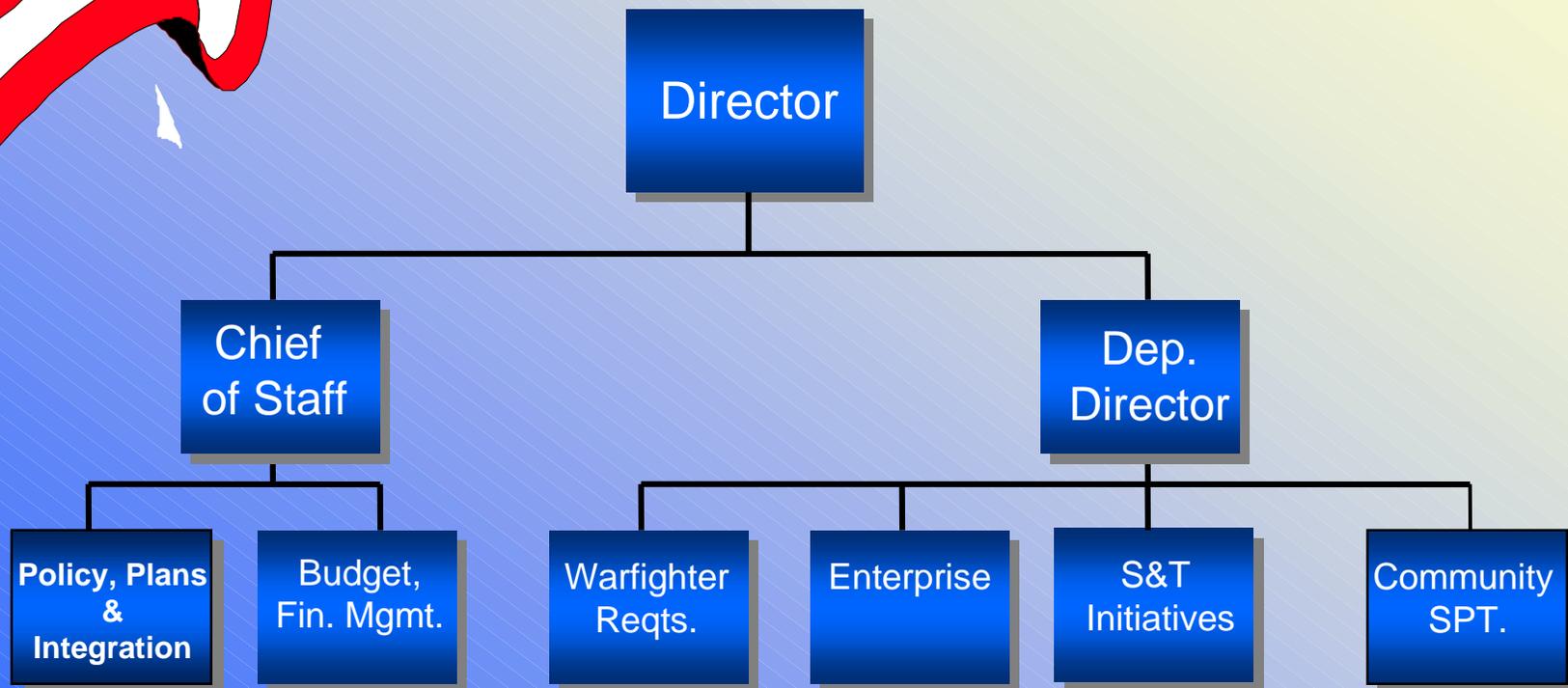
- Data / CMMS
- HLA
- Human Behavior Rep (HBR)
- Integrated Natural Environment

Basic Ops

- M&S Policy
- Outreach
- Personnel
- Budget/Finance
- Facilities



DMSO Organization



DMSO Concentration Areas

- Break new ground for M&S applications
- Identify and support projects that have strong multi-service application
- Concentrate on application level interoperability between simulations
- Consider an additional HLA category for models that need to be made HLA but do not need immediate transition
- Provide leadership in pulling the M&S and C2 worlds together
- Take a more aggressive role in resourcing the MSRR
- Focus on technology for simulations techniques that reduce the cost of ownership
- Explore development opportunities for M&S professionals beyond current introductory education programs

Guidance from the EXCIMS



Immediate Actions

- **Transition DMSO to New Vector (April '00)**
- **Activate M&S Science & Technology Initiatives Program (July '00)**
 - Focus on emerging technologies with potential Warfighter M&S utility
 - Establish process to identify, prioritize and select via MSWG & EXCIMS
 - Put in place and begin executing NLT end of FY'00
- **Prepare Integrated M&S Implementation Strategy (July '00)**
 - Identify, coordinate and integrate current multi-service efforts
 - Prioritize efforts and requirements to align collective investments efficiently
 - In place for FY '01 execution
- **HLA Policy Review Task Force (July '00)**

An Integrated Shared Vision of the Future for M&S

Immediate Actions - Status

- **Transition DMSO to New Vector (April '00)** **COMPLETE**
 - Internal Program Review: 18 April
 - New Organization In Effect: 1 May
 - Budget Review: 4 May
- **Activate M&S S&T Initiatives Program (July '00)** **ON TRACK**
 - Proposal Elicitation: April - May
 - Task Force Convened: 26 April (Dr Phil Barry is lead)
 - Proposal Close Out: 17 May
 - Proposal Assessment: 5 June
 - Recommendations Presented: MSWG - 29 June EXCIMS - 12 July
- **Prepare Integrated M&S Implementation Strategy (July '00)** **ON TRACK**
 - Concept presented to MSWG: 17 May
 - Task Force Formed: On Going (Fred Hartman is lead)
 - FY '01 Priority of Efforts Due: MSWG - 29 June EXCIMS - 12 July
 - FY '01 Draft Main Effort Plan: MSWG - 29 June EXCIMS - 12 July
- **Conduct HLA Policy Review (July '00)** **ON TRACK**
 - Task Force Convened: May (CAPT Dave Johnson is lead)
 - Policy Recommendation: MSWG - 29 June EXCIMS - 12 July

An Integrated Shared Vision of the Future for DoD M&S

Request for Information 2000

The Defense Modeling and Simulation Office News

Wider Coverage for DMSO Initiatives Program 2000

by Staff Writers

**DMSO Publicizes Initiatives
With Industry and Academia
at DMSO Industry Days**

by TF

**Initiatives To
Be Closely
Monitored**

by TF2

**Commerce Business
Daily Call for
Proposals Expected
in September 2000**

by PSB



M&S Assessment - 2000

(1 of 2)

- Technological capabilities far exceed what's being delivered to the Warfighter
- A tendency to misunderstand the relationship between Training, Analysis, Acquisition and Experimental Modeling and Simulation
- Analytic (Decision Making), Acquisition (Design) & Experimentation (Concept) simulations/tools have been comparatively neglected
- Unbalanced Approach between collecting Data-Information vs Filtering-Prioritizing-Disseminating Critical Information Requirements

The Gap Continues to Widen

M&S Assessment - 2000

(2 of 2)

- Preoccupation with Model & Simulation development vs a “User Friendly” Tool
- Inadequate attention to Peace and Urban Operations
- Major tendency to focus on the tactical vs the operational and strategic levels
- Insensitivity to the Time Constraints and Array of Issues Facing Today’s Field Commanders

The Gap Continues to Widen

Possible Opportunities

- Next Generation of Simulations (*the JV2010 of M&S*)
- DATA, DATA, DATA (environment, human behavior, forces, etc)
- C4ISR, Information Operations and Decision Support M&S (Tools)
- Logistics/Sustainment
- Simulation Based Acquisition (linkage between T&E - OT - M&S)
- Peace & Urban Operations
- Capability to Go from Live-Virtual-Constructive...and back!

*The Possibilities are Infinite, the Needs are Finite ...
the Resources are Limited*

Summary

- **M&S is a combat multiplier for the Warfighter**
- **DMSO must maintain situational awareness of Warfighter needs and M&S S&T developments across the spectrum of time**
- **The Possibilities are Infinite, the Needs are Finite ... the Resources are Limited**

***DMSO is Leading, Integrating and Leveraging M&S
for the Warfighter***