JOEF Prototype Development Activities

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Cubic Defense Applications
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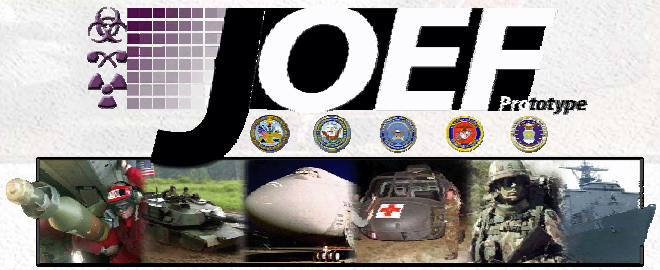


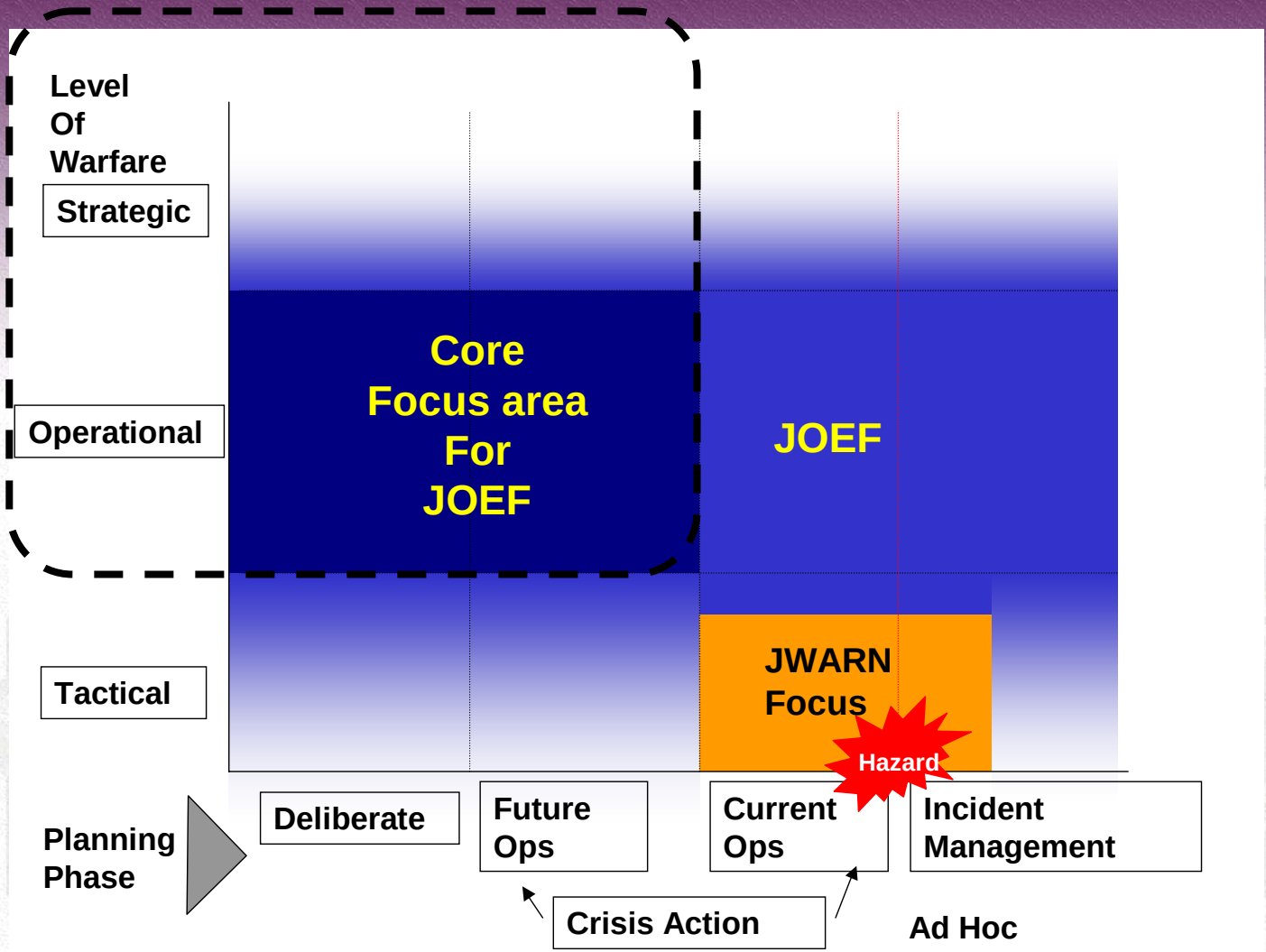
Presentation Outline

- JOEF Prototype Development Team
- JOEF Focus Areas and Concept
- JOEF Prototype Development Process
- COCOM/User Visits
- Summary

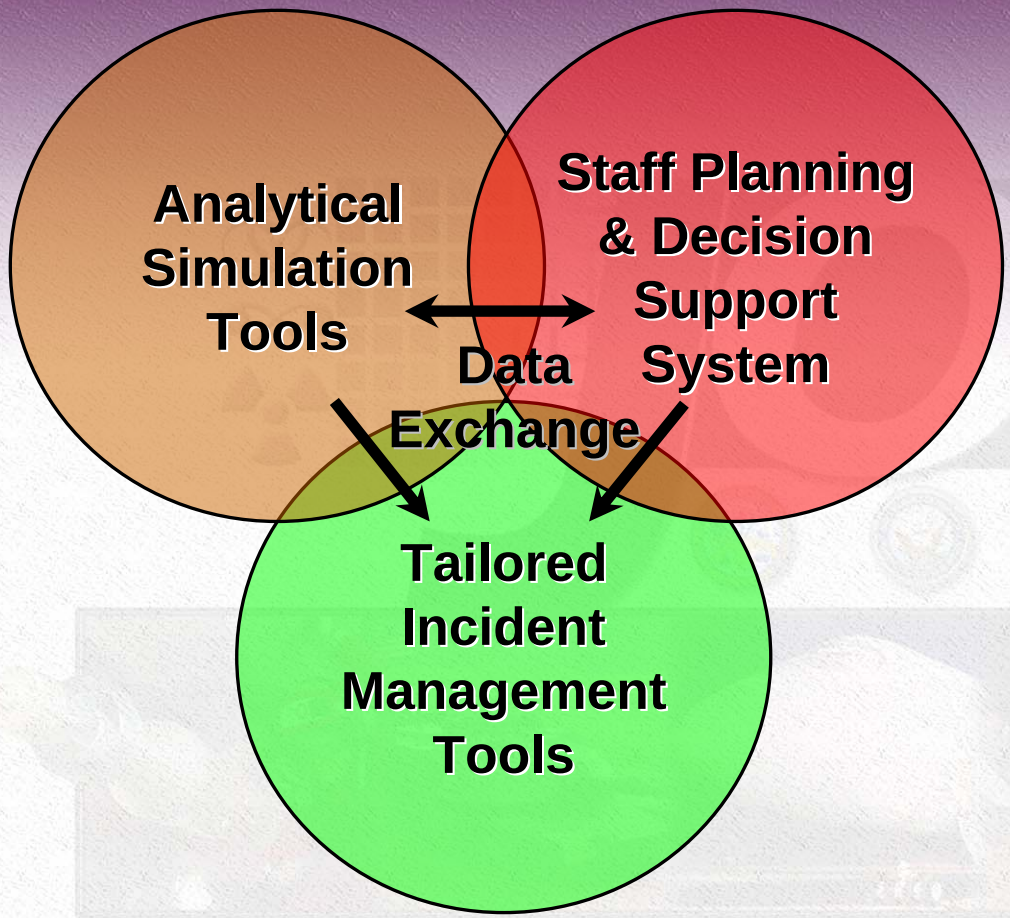
JOEF Prototype Development Team

- DoD/Government
  - Joint Science & Technology Office (JSTO)
  - SPAWAR (JPM-IS)
  - Air Force Research Labs (AFRL)
  - US Army Office of the Surgeon General (OTSG)
- Contractors
  - Cubic
  - Anteon, Inc.
  - ScenPro, Inc.
  - General Dynamics (Prototype I)

JOEF Focus Area



Basic JOEF Concept



- Staff Planning & Decision Support tools automate/facilitate planning processes
- Modeling tools used within planning processes
- Incident Management tools added with JOEF Increment 2

JOEF Components and Interfaces

C4I NETWORKS / GIG
COMMANDER'S INTENT
LOGISTICS
FORCE STATUS
INTELLIGENCE
METOC
COLLABORATION

PLANNING
-Vulnerability and risk assessments
-Resource and logistics estimates
-Operational & medical COAs
-Sensitivity analysis
-CBRND plans and staff estimates
-Sensor employment strategies & plans

WARFARE PLANNING TOOLS/MODELS

CBRN EFFECTS & IMPACTS

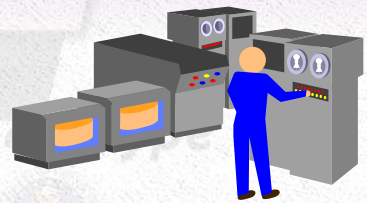
GUIDANCE & PLANS

JEM HAZARD PREDICTION

JWARN SENSING AND WARNING

JOEF
FIXED SITE CBRN MODELS
MOBILE FORCE CBRN MODELS
MEDICAL MODELS
CBRN DATA
CBRND TTPs
PREVIOUSLY PREPARED:
OPERATIONAL PLANS
SOPS & CHECKLISTS
OPERATIONAL ESTIMATES

COTS INCIDENT RESPONSE & CONSEQUENCE MANAGEMENT TOOLS



CIVILIAN NETWORK(S)

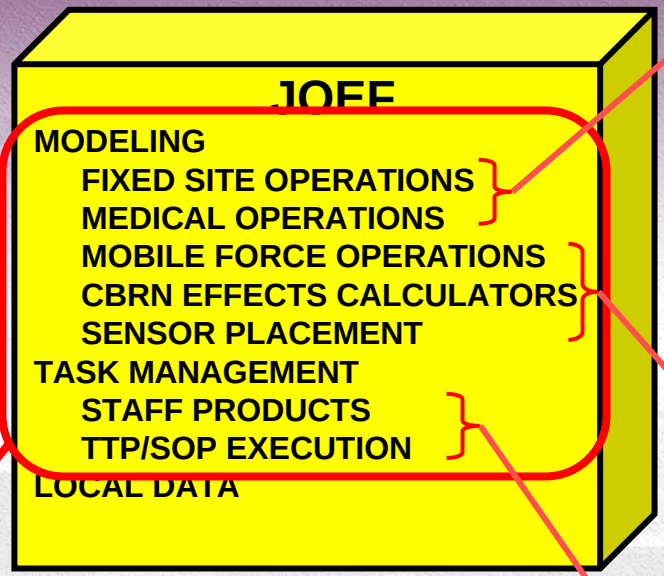
HOST NATION AND U.S. NATIONAL/STATE/LOCAL LAW ENFORCEMENT AND EMERGENCY SERVICES SYSTEMS AND DATABASES

External to JOEF

Internal to JOEF

JOEF Technology Selection Process

3 FTAs



FTA I:
Fixed Sites & Medical
RFI issued: 6 Jan 2003
Completed: June 2003
26 responses

FTA II:
Mobile force, Decision Support
RFI issued: 9 Dec 2003
Completed: 1 Apr 2005
47 responses

Functional Components evolved in response to user feedback from prototype demonstrations

FTA III:
Business Process Management
RFI issued: 3 Mar 2005
Completed: July 2005
27 responses

Underlying JOEF Technology

Analytical Simulation Tools

STAFFS
NBC CREST

CHEMRAT
NBC Planner
Electronic VAT

Not included

Bonita
Google Search

Staff Planning & Decision Support System

JOEF

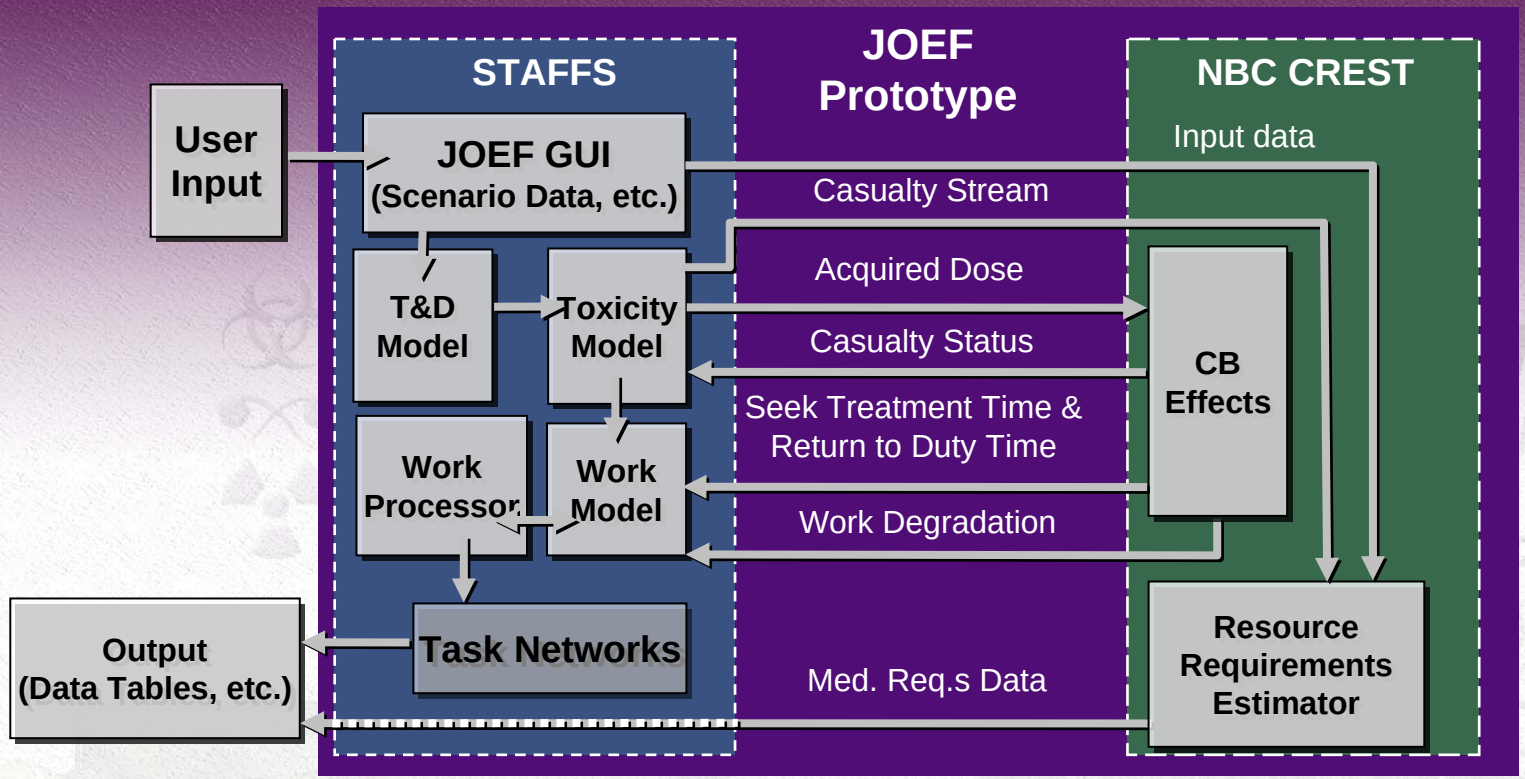
MODELING
- FIXED SITE OPERATIONS
- MOBILE FORCE OPERATIONS
- MEDICAL OPERATIONS
- CBRN EFFECTS CALCULATORS
- SENSOR PLACEMENT

TASK MANAGEMENT
- STAFF PRODUCTS
- TTP/SOP EXECUTION

LOCAL DATA

Component selection based on:
- Focused Technology Assessments
- User Feedback gained from COCOM and other visits

JOEF Prototype I Integration



- STAFFS model estimates operational effects to military operations
- NBC CREST estimates effects of agents on population, and medical resources

JOEF Prototype II and III Efforts

- Prototype II Integration Efforts:
  - Modify Resource Requirements estimation capability to allow stochastic modeling
  - Integrate NBC Calculator and CHEMRAT into JOEF Prototype
  - Apply graphical post-processing capability
- Prototype III Integration Efforts:
  - Adapt architecture to begin migration to multi-tier architecture
  - Modify GUI to leverage C/JMTK tool, and to simplify data input/output capabilities
  - Develop SPOD operations model
  - Develop Mobile Forces operations model
  - Investigate automated task management capabilities

COCOM/User Visits

- Objectives:
  - Understand the processes and tools that COCOMs and other uses employ in planning process
  - Help understand Mobile Force modeling requirements
  - Develop rapport with potential tool users
- COCOMs Visited:
  - CENTCOM
  - TRANSCOM
  - NORTHCOM
  - JFCOM
  - I-Corps
  - USARPAC
  - PACFLT

Summary

- JOEF Prototype efforts demonstrated how off-the-shelf technologies could be leveraged to support JOEF program goals
  - CB Science & Technology products
  - COTS, Open systems products
- JOEF Prototype demonstrations were used to showcase capabilities, and to shed light on JOEF tool requirements
- The JOEF Prototype is *NOT* the JOEF tool; further development and integration is required to produce the JOEF tool