



Joint Effects Model (JEM) Program Overview



Joint Program Executive Office for Chemical and Biological Defense

Joint Project Manager Information Systems (JPM IS)

JEM Increment 2 RFP Industry Day

March 21, 2012

Statement A: Approved for public release, distribution is unlimited (19 Mar 2012)





Purpose



- **The goals of today's JEM Incr 2 Industry Day are to:**
 - **Introduce industry to JEM's vision and strategy for the development and integration of Incr 2 software**
 - **Provide insight into the JEM Incr 2 Technical Data Package (TDP)**
 - **Solicit industry's feedback on JEM Incr 2 draft RFP documentation and down-select process**



Agenda



Part I: Background and Overview

Part II: Software Development Requirements and Technical Data Package (TDP) Overview

Part III: Contract / Draft RFP

Part IV: Down-Select Process

BREAK: 15 minutes

Part V: Optional Technical Demonstration

This presentation will be posted to the SPAWAR eCommerce website after Industry Day



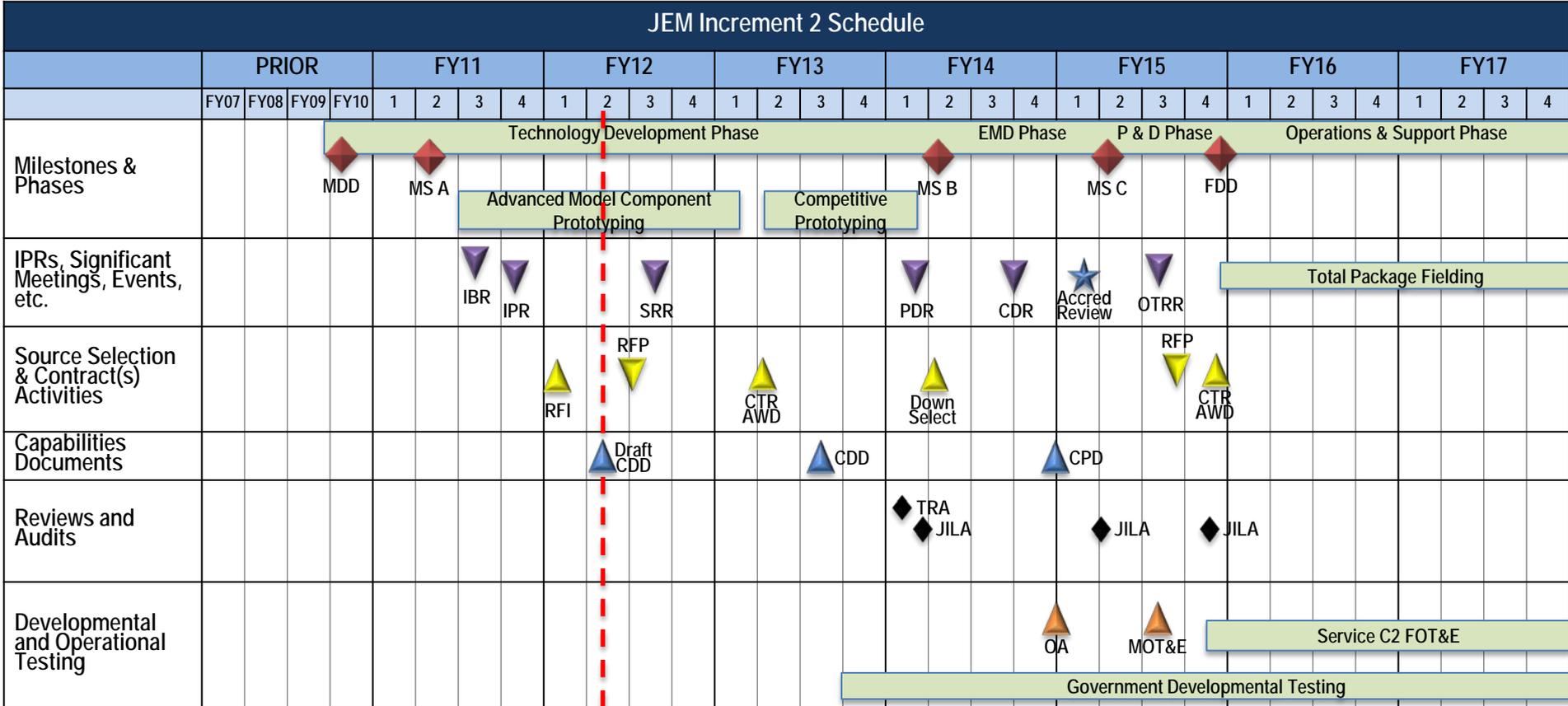
Part I



Part I: Background and Overview	JEM Incr 2 Schedule and Funding
	JEM Program Overview
	JEM Mission Statement
	JEM Description
	JEM Incr 1 Capability Summary
	JEM Incr 2 Targeted Capability
	JEM Incr 2 Prototyping
	CCMI Background & Goals



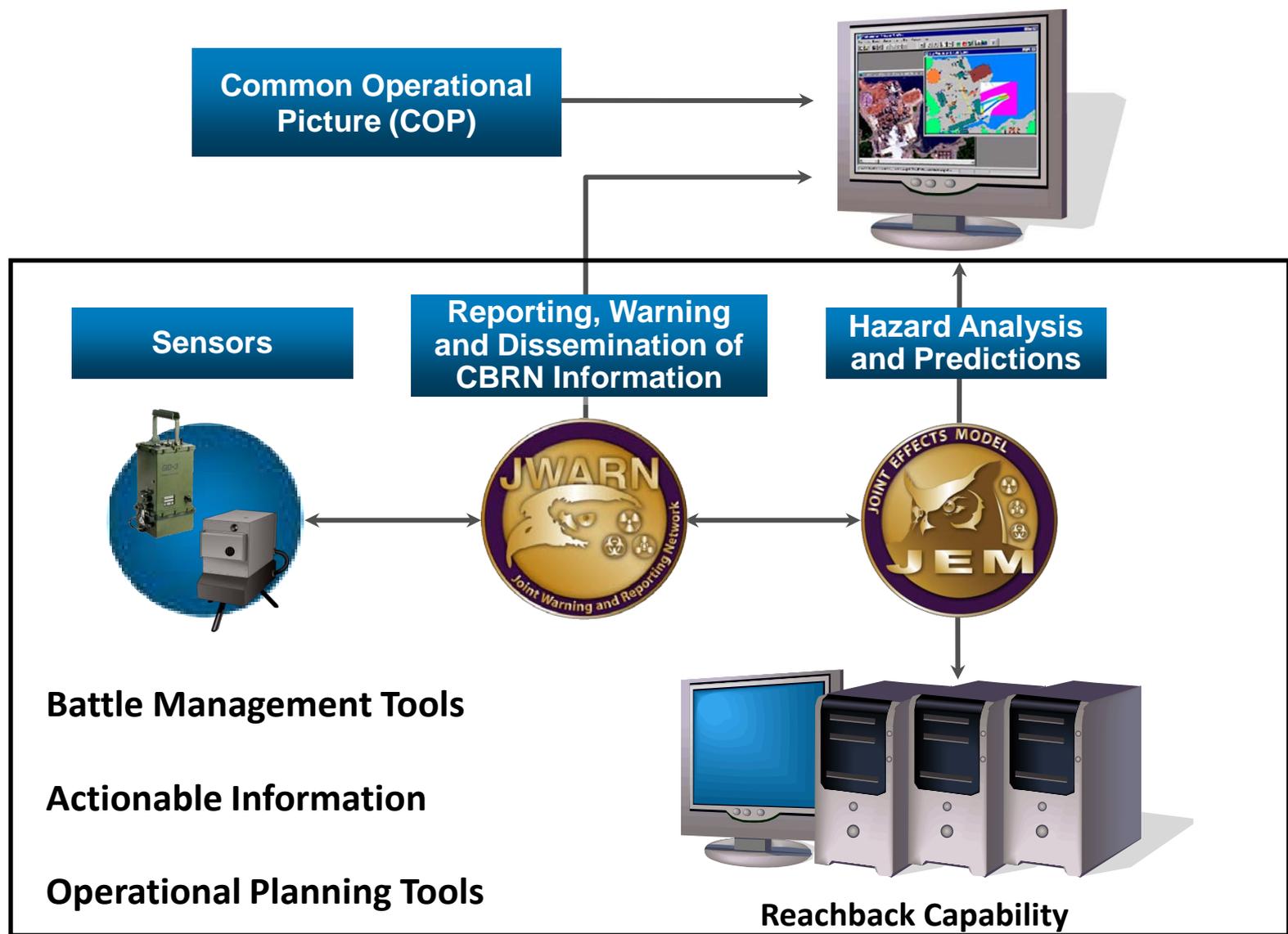
JEM Inc 2 Schedule





Program Overview

End-to-End CBRN Capability

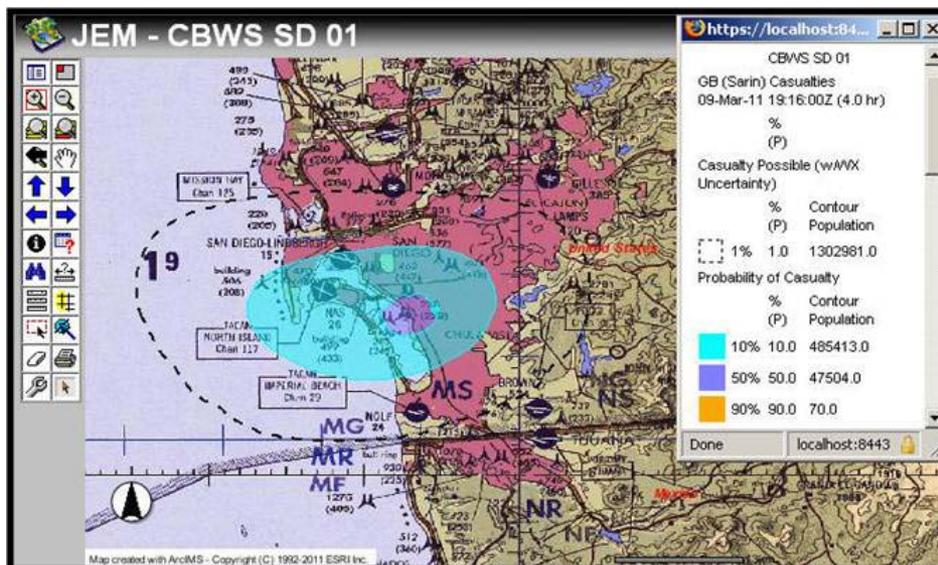




JEM Mission Statement



- Provide the Joint Forces Commander with the capability to:
 - Predict high-fidelity downwind hazard areas and effects associated with the release of Chemical, Biological, Radiological, and Nuclear (CBRN) and Toxic Industrial Materials (TIM) into the environment
 - Incorporate the impacts of weather, terrain, and material interactions into the downwind prediction
 - Provide enhanced situational awareness of the battlespace and to provide real-time hazard information to influence and minimize effect on current operations





JEM Description



- **Web-Based, Software Application**
 - DoD Accredited model that provides time-phased impact of CBRN and TIM events
 - Will produce hazard plots in various formats to be pushed to the Common Operational Picture (COP) or other Warning & Reporting applications
- **Standalone and Command & Control (C2) Variant**
 - Standalone – Can be installed on desktop/laptop personal computer
 - C2 Variant – Integrated into DoD C2 systems (GCCS-J/A/AF/M, C2PC/JTCW, CPOF, BC Web/COE, etc.)
- **Current Users**
 - USA, USAF, USMC, USN, National Guard Bureau, Civil Support Teams, USSOCOM, Reserves



JEM Incr 1 Capability Summary



- **Models are Verified, Validated and Accredited**
- **Rigorously Operationally Tested across multiple levels of command (tactical, operational, strategic)**
- **Logistical and support “tail”**
 - **Complete Training Packages including Computer Based Training**
- **Software Security & Information Assurance Network Accreditations & Certifications**
- **Multiple hazard area output formats**
- **Warning and reporting system integration**
- **Fielded**

Operationally Successful



JEM Incr 2 Targeted Capability



- **Urban Dispersion Modeling Improvements**
 - Buildings, Metropolitan Terrain
- **Modeling CBRND effects of threat Missile Intercept**
- **Enhanced modeling to support biological and medical events**
- **Higher Fidelity Weather**
 - Supports Littoral Modeling Requirements
- **Source Term Estimation**
- **STRATCOM Requirements**
 - Expanded nuclear modeling capability
 - Multiple-strike planning and analysis capability
 - Hosting on internal hardware/networks
- **Advanced Industrial Facility Model**
- **Improved Agent Fate Predictive Modeling**
- **Common CBRN Modeling Interface (CCMI) to facilitate a better plug-and-play architecture**
- **Improved CBRN Analyst Support**



JEM Prototyping Approach



- **JPM IS manages advanced development of JEM prototypes**
- **Provides an orderly transition from the current S&T core architecture to one that is more open and flexible and that aligns with principles in the Net Ready Key Performance Parameter (NR-KPP)**
- **Moves good physical science from the legacy S&T core into a more understandable and sustainable architecture**
- **Defines well structured, easily configured interfaces that allow for introduction of varied modeling components from industry as well as other US government agencies**
 - Reduces duplication of effort
 - Reduces integration costs
 - Reduces long term sustainment costs
 - Speeds transition of mature capability to the Warfighter



Common CBRN Model Interface (CCMI) Background: The Impetus for CCMI



- **Issues that made CCMI necessary:**
 - S&T models took a long time (>6 months) to integrate into JEM
 - Individual models were difficult to test
 - Interfaces were undocumented
 - Community of disparate S&T developers
 - Platform for S&T developers was difficult to use
 - Inability to easily separate mature from immature S&T



CCMI Background: The Goals of CCMI



- **Define interfaces via XML schemas**
 - XML schema is a rich language for defining data
 - Conformance with CBRN data model
- **Allow JEM and S&T components to evolve independently**
 - Isolate problems and only update the broken component
- **Allow for the development of a tool that can test models independently**
 - CCMI Auto-generated Test Tool (CATT) allows component developers, integrators, and analysts to test models
- **Provide a well-defined mechanism for model developers to define inputs, outputs, dependencies, and capabilities**
- **Provide a well-defined mechanism for model developers to deliver their tests, build scripts, and Verification & Validation (V&V) report**

Reduce the effort required to integrate new or updated models, while lowering maintenance costs



Part II



Part II: Software Development Requirements and Technical Data Package (TDP) Overview

Software Development Requirements

Scope of Work: Base and Option Periods

TDP Table of Contents

Common CBRN Model Interface

CCMI Auto generated Test Tool

JEM Plug-n-Play User Interface

JEM Increment 1 Software/Documentation

JEM Increment 2 Documentation

Hazard Prediction Assessment Capability

TDP Updates for RFP

CCMI Functionality and Status

Prototyping To-do List

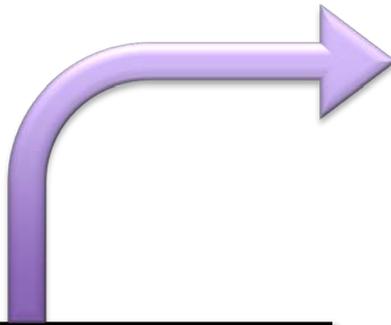
Technical Approach Sub-Factor 1.2: 3 Sample Scenarios from Draft RFP



JEM Incr 2 Software Development Requirements



JEM Incr 2 PWS Section 4.2.1



- TRL Level \geq 6
- CCMI Compliant
- CATT Compatible
- NR-KPP Compliant
- JEM TV-1 and DoD IT Standards Registry Compliant
- Web service methods to support XML schemas
- Retains JEM Incr 1 capability
- Demonstrates Incr 2 hazard modeling capabilities

PWS Section	PWS Section Title	Activity
4.2.1	JEM Incr 2 SW Requirements	
	a	All models incorporated within the software are capable of meeting a Technology Readiness Level 6 assessment.
	b	Software executes in the CCMI test environment.
	c	Software can run within the CCMI Autogenerated Test Tool (CATT).
	d	Software complies with the Net-Ready Key Performance Parameter (NR-KPP) as defined in CJCSI 6212.01E, "Interoperability and Supportability of Information Technology and National Security Systems".
	e	Software complies with current active communication and software standards, as defined in the JEM TV-1 and the DoD IT Standards Registry (DISR Online).
	f	The software contains web service methods to support XML schemas.
	g	Software retains all existing JEM Incr 1 functionality and retains backwards compatibility with JEM Incr 1 Problem Sets
	h	Software demonstrates the following CBRN hazard modeling capabilities: <ul style="list-style-type: none">i. Urban dispersion modeling improvementsii. Modeling CBRN-D effects of a missile interceptiii. Models to process high fidelity weather information, especially within littoral and urban areasiv. Contagious and infectious disease modelingv. Implementation of population migration tools and associated effects on that population, to include friendly military and civilian populationsvi. Source term estimation/refinementvii. Scenario editor to facilitate batch runs of a large number of incidents, perform Monte Carlo analysis on the set of incidents, and produce a report of data with an associated visual representationviii. Improved nuclear effects to include greater accuracy, Electromagnetic Pulse (EMP), and improved customization of the display of nuclear effectsix. National Guard Bureau Civil Support Team (CST) prioritiesx. Building interior modeling



Scope of Work: Base Period



- **Develop software to serve as the JEM Increment 2 System Allocated Baseline**
- **Deliver software and associated technical documents**
- **Provide program management and systems engineering support**
- **Maintain configuration management (CM) and information assurance (IA) posture of the existing JEM baseline**
- **Lead Midterm and Final Demonstrations**
- **Provide technical support during the down-select process**



Scope of Work: Option Periods



- **Assist the Government in achieving a successful Preliminary Design Review (PDR) and Milestone B decision**
- **Develop JEM Incr 2 Initial Production Baseline software**
- **Integrate selected S&T components**
- **Perform on-going software upgrades and C2 integration services**
- **Provide fielded product upgrade support**
- **Support the Program Change Report (PCR) Process**
- **Develop or update classroom curriculum and training materials**
- **Support system test and evaluation**



Technical Data Package (TDP): Table of Contents



TDP Section	Highlighted Section Content
1) Common CBRN Model Interface (CCMI)	
	Guidelines and Templates
	Performance white paper
	Compliance Checklist
2) CCMI Auto Generated Test Tool (CATT)	
	CCMI Framework
	CCMI Models
	CCMI Blueprints
	JP2UI Framework
	JP2UI Components
3) JEM Plug-n-Play User Interface (JP2UI) / JEM Plug-n-Play CCMI Web Service Interface (JP2CWSI)	
	JP2UI Framework
	JP2UI Components
	JP2UI/JP2CWSI white papers
4) JEM Increment 1 Software/Documentation	
5) JEM Increment 2	
	Draft System Performance Specifications
	JEM Incr. 2 Risk Reduction Prototype
6) Hazard Prediction Assessment Capability (HPAC)	
	Maintenance Build 125



TDP Contents: CCMI



- **Guidelines and Templates**
 - Provide detailed requirements for making models and data sources to become CCMI compliant
- **Performance white paper**
 - Describes the performance characteristics of transferring XML and Java data objects
- **Compliance Checklist**
 - Itemizes the CCMI requirements
 - Provides a template for developers to report CCMI compliance
- **CBRN Data Models**





TDP Contents: CCMI Auto-Generated Test Tool (CATT)



Demo Following Brief

- **CCMI Framework**
 - Software that ties the CCMI components together
- **Blueprints**
 - Define the external interfaces for the different classes of CBRN models
- **CCMI Models**
 - Set of components that have been integrated into CATT.
 - Components have varying levels of CCMI compliance
- **JEM Plug-n-Play User Interface (JP2UI) Framework**
 - Software that has been integrated into CATT to show that the same framework can be deployed in a desktop application
- **JP2UI Components**
 - Same components from JP2UI (described in the following slide)



UNCLASSIFIED



TDP Contents: JP2UI / JP2CWSI



Demo Following
Brief

- **JEM Plug-n-Play User Interface (JP2UI) Framework**
 - Software that supports the development of user interfaces
 - JaxFront
 - Facilitates the generation of user interfaces based on schemas and a layout
 - Creates user interfaces for web and desktop applications with little effort
- **JEM Plug-n-Play CCMi Web Service Interface (JP2CWSI)**
 - Distributed OSGi
 - Demonstrates the separation between the user interface and the models
 - Divides the models that can or cannot run concurrently
- **JP2UI Components**
 - ITRANS Warfighter and Analyst User Interface and related models
- **JP2UI/JP2CWSI White Papers**
 - Discusses the design and deployment of JP2UI and JP2CWSI

TDP Section:

CCMI

CATT

JP2UI/JP2CWSI

JEM 1 SW

JEM 2 Docs

HPAC



TDP Contents: JEM Incr 1 Software & Documentation



- **Software**

- **JEM 1.0B8**

- **Software that has integrated models from HPAC 4.0.3/4.0.4, VLSTrack, and D2PUFF**

- **Documentation**

- **System Administrator's Manual (SAM)**

- **Software User's Manual (SUM)**

- **Includes JEM limitations**

- **System Version Description (SVD)**

- **Software Programmer's Guide (SPG)**

- **Performance Specification (P-SPEC)**





TDP Contents: JEM Incr 2 Documents & Prototype



- **Draft System Performance Specifications**
 - Transferred many of the System Performance Specifications from Incr 1 and added additional Incr 2 requirements
- **JEM Incr. 2 Risk Reduction Prototype**
 - Updates a subset of HPAC 125 models into JEM
 - Has three user levels





TDP Contents: Hazard Prediction Assessment Capability (HPAC)



- **Maintenance Build 125**
 - Software contains S&T models that were released about one year ago
 - Access may be facilitated by JPM IS in coordination with DTRA





TDP Updates



- **Partial reconciliation of software**
 - HPAC MB 16x and current CCMI models
- **New CCMI Models**
 - Nuclear Weapon Incident
 - Nuclear Reactor Facility Release
 - Radiological Dispersal Weapon Device
 - Chemical Biological Facility Strike
 - Chemical Stored Weapon Incident
 - Chemical Biological Weapon Strike (VLSTrack)
 - Source Term Estimation
 - Transport & Dispersion (VLSTrack)
- Shelter Stay Time with CONTAM
- High Altitude Missile Intercept (VLSTrack)
- **Bug fixes for existing CCMI models**
- **CATT**
- **CCMI Guidance Document**
- **CCMI Checklist**
- **CCMI Training Materials**
- **Draft System Performance Specification**
- **HPAC MB 16x**
- **V&V Documentation**



CCMI Functionality



Agent Material	Fixed and Adaptive Grid Input	Met Processor Integration	Full use of configuration Inputs	Horizontal Slice
Chemical Properties	Explosive Warhead Data	Nuclear Tool Server	Metadata Queries	Surface Slice
Biological Properties	Hazardous Container Data	Kdtrans	Output Generator	Metadata Queries
Chemical Effects	Geographic	Nemesis	Adaptive Grids	Clouds
Biological Effects	Land Use	Newtrans	Fixed Grids	CCMUF
Exposure				
Thresholds	Land Use Properties	Nweprompt	Shelter Stay Time	Instantaneous Release List
Transport Vehicles	Terrain	PDCALC	AEGLS	Stack Release
Effects	Population	SWIM	Probability of Effects	Continuous Release
AEGL Output	Urban	Surface Observation Input	Performance Degradation	Instantaneous Release
Probability of Effects	Analytical ISM	Profile Observations Input	Metadata Queries	Fixed Wind Input
Performance				
Decrement	Instantaneous Release	Fixed Grid Input	Dosage Contours	Observation Met Input
Metadata Queries	Instantaneous Release	Gridded Met Input	Concentration Contours	Met Observation Input
Shelter Stay Time	Continuous Release	2D/3D Output Metadata	Vertical Slice Contours	Liquid Pool Release
Conservative AEGLs	Stack Release	2D/3D Output Data	Radiological Contours	Sampler Input
Single Shelter	Moving Release	METGM	Nuclear Contours	Sampler Output
Multiple Shelter	Diagonal Release	Meteorological Data Server	Deposition Contours	Dosage Output
Metadata Queries	ISM w/CBSRC	Live Server Download	Urban Dispersion Model	Concentration Output
Effects Collector		Surface Observations	Continuous Release	Deposition Output
AEGL Output	Full support for ITRANS input (except MET Processor)	Profile Observations	Instantaneous Release	Full decoupling from Met Source/Processor
Shelter Stay Time	Full support for ITRANS output	Gridded Data	Pool Release	Update to use new Geographic component
Probability of Effects	NWD ISM	SWIFT (as Met Source)	Fixed Grid Output	Radiological runs
Performance	Simple run using Yield, HOB, Fission Fraction	Observations Input	Dosage Output	Nuclear runs
Population Tables	Nuclear Prompt Effects	Gridded Input	Concentration Output	Vertical Slice
Metadata Queries	Other inputs	Injected Geo Terrain Data	Deposition Output	Vertically Integrated Horizontal Slice
Casualty Tables	RTH Integration	Generation of gridded output	Vertical Slice	UTM coordinate

- CCMF functionality listed in black are areas where functionality has already been obtained
- CCMF functionality listed in red are areas for potential development and improvement
- Significant functionality has already been achieved



CCMI Blueprint Status



- **Developed and reviewed by the CCMI Working Group IPT**
 - Incident Release
 - Agent Material
 - Transport and Dispersion
 - Geographic (Land Use, Land Properties, Urban, Population, Terrain)
- **Developed and reviewed internally**
 - Meteorological Source
 - Meteorological Processor
 - Human Effects
 - Spatial Domain
- **Draft blueprints**
 - Transport Dispersion Controller
 - Effects Collator
 - Explosive/Warhead Data
 - Hazardous Material Container Data
 - Output Generator
 - Isotope Radioactive Decay



Prototyping To-Do List

- Complete CCMI implementation of remaining models
- Missile Intercept
- Urban
 - Complete
- Source Term Estimation
 - Nearly complete
- Population Evacuation
- Contagious Disease Model
- Improved radiological/nuclear models
 - RTH blueprint
- Secondary Evaporation
 - Blueprint may be completed for RFP
- Effects
 - Nearly complete
- ITRANS
- IFAC
- Shelter Stay Time
 - Nearly complete
- Day/Night Population
- Degrade
 - HPAC MB
- Smoke
- SWIFT (optional)
- MDS
 - Partially complete
- MSS (optional)

- Partially or Completely Accomplished
- Not Yet Accomplished



Prototyping To-Do List (continued)



- Ensure the integrated prototype can be assessed at TRL 6 for PDR
- Client web services
- Project Management
 - Incident (i.e., “problem set”) sharing across user base
- Web User Interface
- Application Framework
 - Authentication/Security
- Installer
 - 1-step installer
- User Preferences
- Default Plots
- Material Editor
- Desktop Solution
- Batch Editor / Batch Run Process

-  Partially or Completely Accomplished
-  Not Yet Accomplished



Technical Approach Sub-Factor 1.2: Sample Scenarios



The Offeror should provide solutions addressing the three sample scenarios described below with specific reference to the Government-provided TDP:

Challenge #1

Integrating new and updated S&T capabilities into the JEM baseline creates the potential for compatibility issues with outside programs that leverage JEM. For example, JWARN calls JEM for agent material files via hard-coding that is specific only to the JEM-JWARN exchange (handshake). This design creates a unique solution that accommodates JWARN, as opposed to being a flexible, web-based solution built on evolving S&T capabilities.

Challenge #2

In an effort to promote modularity, JEM decouples Transport and Dispersion Models from Windfield Models, which creates the potential for performance deficiencies. For example, decoupling SCIPUFF and SWIM has resulted in a decrease in JEM performance levels that are specifically related to the communication between these once tightly integrated models.

Challenge #3

JEM software will need to be integrated into various C2 environments, such as GCCS-J. Integrating JEM software with GCCS-J involves transitioning software from a Windows-based operating system to a UNIX/Solaris-based system.



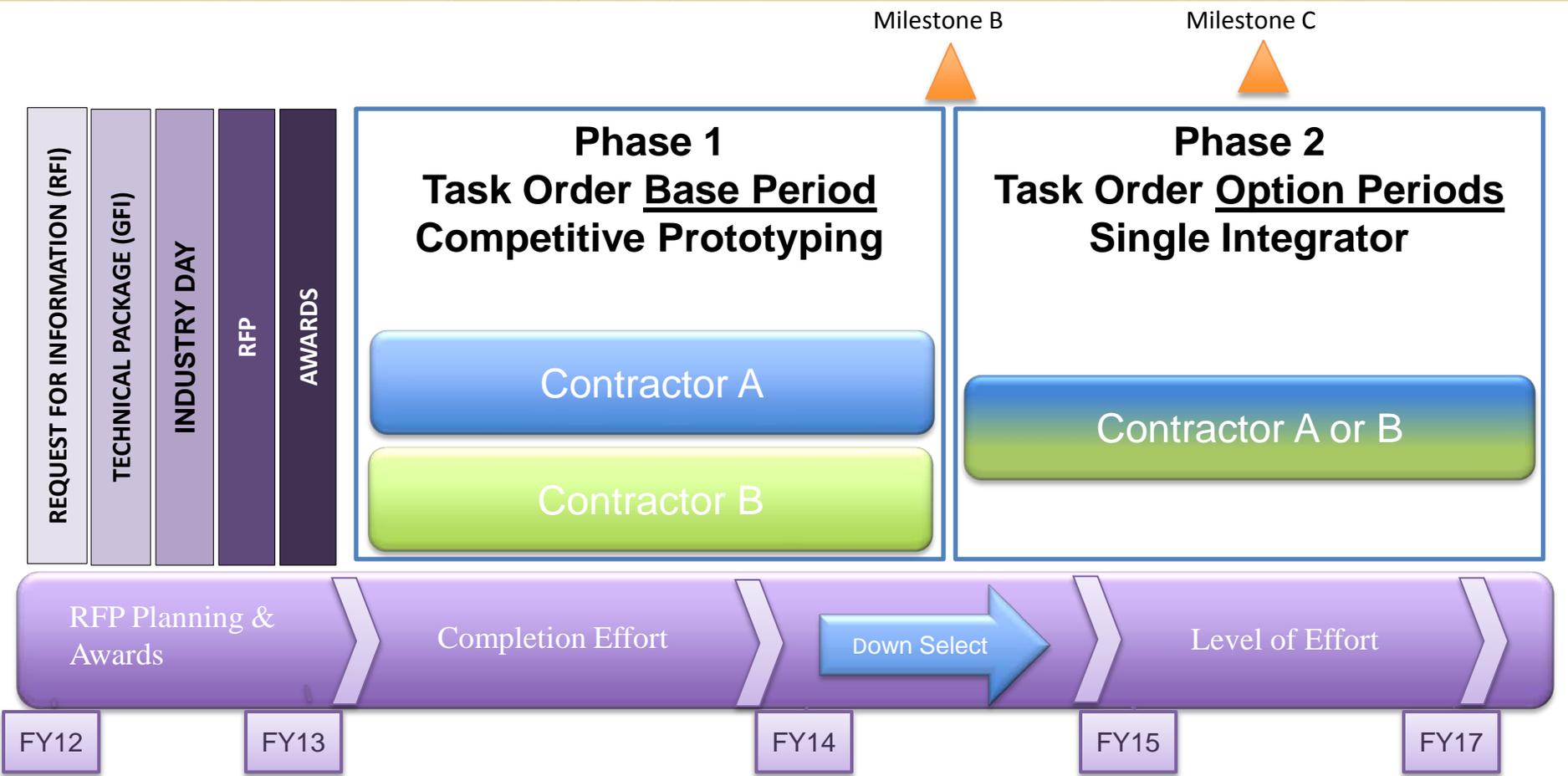
Part III



Part III: Contract Strategy	Contract Strategy Overview
	Contract Periods of Performance
	Draft CLIN Structure
	Contract Strategy: Points of Interest
	Draft Source Selection Strategy
	Pre-Award Contract Milestones
	Points of Contact



Contract Strategy Overview



- Estimated RFP Date: May 2012
- Estimated Award Date: Jan 2013
- Estimated Down-Select Date: Dec 2013



Contract Period of Performance Overview



- **One-year Base Period**

- Software Development resulting in a JEM Inc 2 software baseline deliverable (CPFF Completion)
- Other Direct Costs (Cost Only)
- Data (NSP)

- **Down-Select**

- **Four one-year Option Periods**

- Ongoing Software Development, Integration and Maintenance services (CPFF Term) [May be a CPFF Completion deliverable for CDR in OY1]
- Other Direct Costs (Cost Only)
- Data (NSP)



Contract CLIN Structure



CLIN	Description	Type
Base Year		
0001	SW Development of JEM Inc 2 Baseline	CPFF
0002	Other Direct Costs (Travel/Material)	Cost
0003	Data - CDRLs (Dev)	NSP
Option Years (4 one-year option periods)		
1001	SW Development, Integration and Maintenance	CPFF
1002	Other Direct Costs (Travel/Material)	Cost
1003	Data - CDRLs (Dev)	NSP
2001	SW Development, Integration and Maintenance	CPFF
2002	Other Direct Costs (Travel/Material)	Cost
2003	Data - CDRLs (Dev)	NSP
3001	SW Development, Integration and Maintenance	CPFF
3002	Other Direct Costs (Travel/Material)	Cost
3003	Data - CDRLs (Dev)	NSP
4001	SW Development, Integration and Maintenance	CPFF
4002	Other Direct Costs (Travel/Material)	Cost
4003	Data - CDRLs (Dev)	NSP



Contract Strategy: Points of Interest



Consideration	Resolution / Intention
Market Research	Results of Request for Information (RFI) on 25 Oct 2011 showed that <u>full and open</u> competition is appropriate
Contract Type	Not more than two Cost-Plus-Fixed-Fee (CPFF) contracts
Basis of Award	Best-value (i.e., tradeoff)
Competitive Development	Awardee(s) will be evaluated during the base period for the purposes of a subsequent down-selection decision
Down-selection	Only one Contractor may earn the first option period and the potential for subsequent option periods
Data Rights	Government desires to acquire not less than Government Purpose Rights to all technical data, computer software, and computer software documentation
EVM	Government does not intend to require Earned Value Management (EVM)
Security	A DD-254 requiring TS/SCI access and SECRET safeguarding will be incorporated into the contracts
GFI	Government-Furnished Information (GFI) in the form of a Technical Data Package (TDP) will be provided to Contractors



Draft Source Selection Strategy



- **M-302 EVALUATION OF OFFERS
(SPLIT AWARD FOR ALL ITEMS)**

An offeror must quote on all items in this solicitation to be eligible for award. The Government intends to make a split award to a maximum of two offerors whose total offer on all items is the most advantageous to the Government considering price and other factors, if any, specified in the schedule. Offerors would undergo down-selection procedures (Att 9) during the base year to determine which single contractor would be awarded continuing options. In the event cost proposals exceed the Government's budgetary ability to make split awards to two offerors, a single award will be made. Down-selection procedures would still be conducted to determine whether options will be exercised.

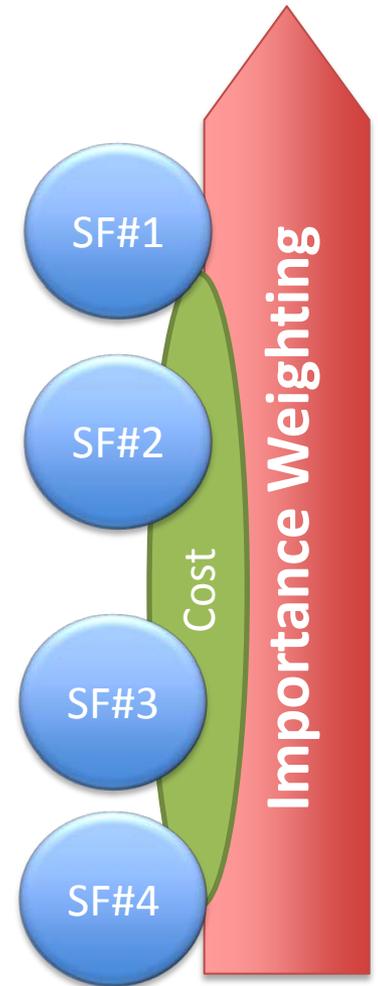


Draft Source Selection Strategy



- Factor 1: Technical Approach
 - Subfactor 1.1: Software Development Plan
 - Subfactor 1.2: Sample Development and Integration Scenarios
- Factor 2: Past Performance
- Factor 3: Small Business Subcontracting
- Factor 4: Cost Savings Initiatives
- Cost

Factors are in descending order of importance. Cost is not a weighted factor. Under Factor 1, the subfactors are of equal importance. All evaluation factors other than cost, when combined, are more important than cost.



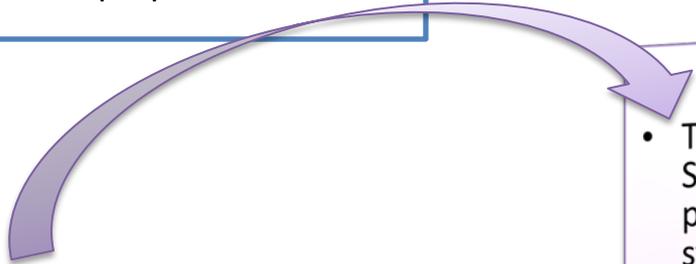


Technical Approach Sub-Factor 1.1: Draft Software Development Plan

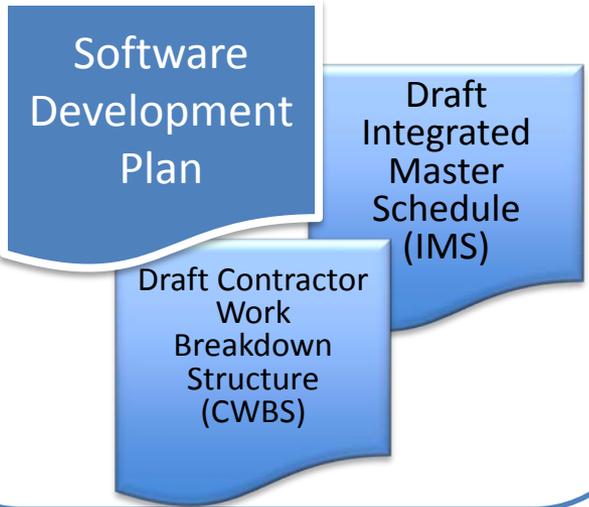


Technical Data Package (TDP)

- Documents Offerors are encouraged to refer to in their proposals



Offerors' Proposal Addressing Sub-Factor 1.1



Evaluation of Sub-Factor 1.1

- The Government will evaluate the Offeror's draft SDP to determine the extent to which the Offeror's proposed software development methods and standards are likely to result in a suitable JEM Incr 2 software baseline.
- The Government will evaluate the Offeror's SDP to determine the extent to which it effectively uses, references, or otherwise integrates relevant aspects of the TDP to support its proposed development plan.
- The Government will evaluate the Offeror's draft IMS and draft CWBS to determine the extent to which the Offeror proposes a comprehensive plan that demonstrates an understanding of the work to be performed within the required schedule.

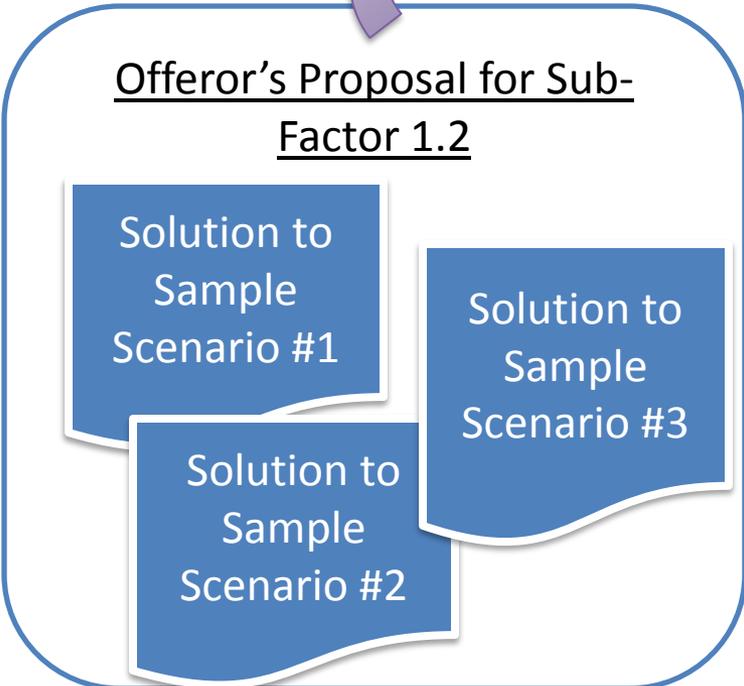


Technical Approach Sub-Factor 1.2: Sample Scenarios



Technical Data Package (TDP)

- Documents Offerors are encouraged to refer to in their proposals



Evaluation of Sub-Factor 1.2

- The Government will evaluate the Offeror's response to the first sample scenario to determine the extent to which the Offeror's proposed solution is likely to result in successful integration of S&T capability into a web-services-based, CCMI-compliant JEM 2 software baseline.
- The Government will evaluate the Offeror's response to the second sample scenario to determine the extent to which the Offeror's proposed solution is likely to result in efficient CCMI-compliant communication between SCIPUFF and SWIM as well as other integrated S&T components in the JEM 2 software baseline.
- The Government will evaluate the Offeror's response to the third sample scenario to determine the extent to which the Offeror's proposed solution is likely to result in a successful integration of JEM 2 software into a GCCS-J system.
- The Government will evaluate the extent to which the responses effectively use, reference, or otherwise integrate relevant aspects of the TDP to support its proposed solutions.



Factor 2

Past Performance



- **Offeror shall describe recent efforts in up to 3 previous engagements**
 - Relevant Experience (Att. 2) – 3 page max
 - CPARS/PPQ (Att. 3) for each experience
- **Will be evaluated for:**
 - Relevancy
 - Quality
 - Resulting in a single Gov't confidence rating



Factor 3

Small Business Subcontracting

- Offeror should demonstrate how it will meet or exceed instant and how it has met historical small business subcontracting goals

Small Business Categories	SPAWAR Target (Based upon % of subcontracted amount)
Total Small Business (includes the below)	25%
Small Disadvantaged Business	5%
Woman-Owned Small Business	5%
HUBZone	3%
Service-Disabled Veteran Owned Small Business	1.5%

- Offeror should demonstrate how it will develop SB subs technical capability in aspects of the effort that are meaningful to overall program success
- The Gov't will evaluate both instant and historical goal achievement and commitment to meaningful development of SB subcontractors
- LBs required to submit SB subcontracting plan. SBs receive 'highest rating' on this factor.



Factor 4

Cost Savings Initiatives



- **Offeror should demonstrate;**
 - How its proposal in response to this solicitation contains measurable cost savings initiatives
 - Measurable cost savings initiatives that will be implemented postaward, i.e. during contract performance
- **The Government will evaluate the likelihood that the proposed initiatives will provide actual cost savings to the Government.**



Pre-Award Contract Milestones



<u>Milestone</u>	<u>Est. Completion Date</u>	<u>Complete?</u>
Technical Development Strategy (TDS)	1/6/2012	✓
RFI/Sources Sought	12/27/2011	✓
Industry Day	3/21/2012	
RFP Release	May/June	
Proposals Received	June/July	
Discussions (if necessary)	September/October	
SSA Decision	November/December	
Award Execution	Q1 FY13	

Government requests all comments to the draft RFP and TDP to be provided no later than 6 APR 2012



Points of Contact



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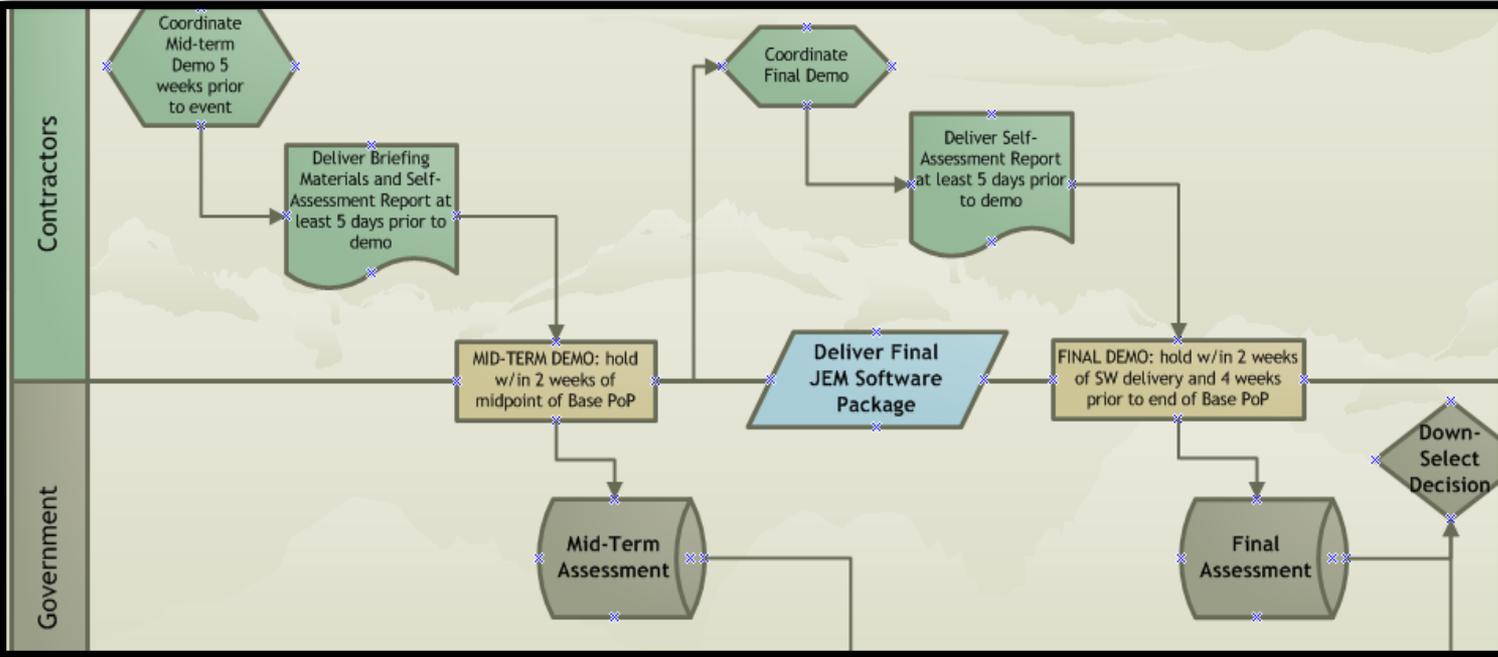
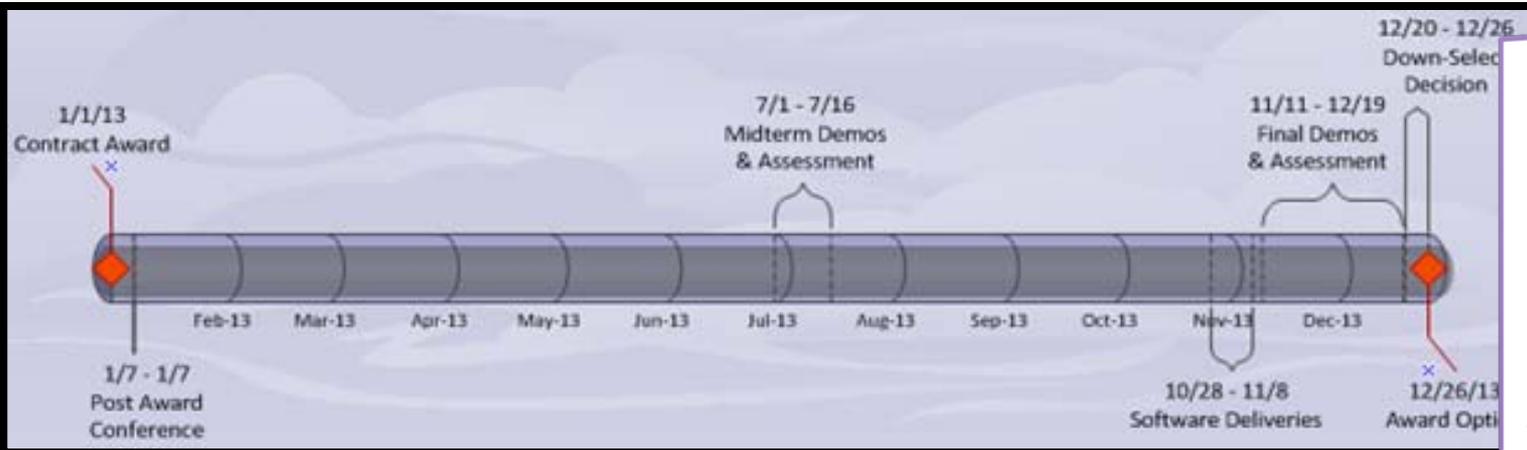
Part IV



Part IV: Down-Select Process	Down-Select Process
	Midterm & Final Demonstrations
	Midterm & Final Assessment Criteria

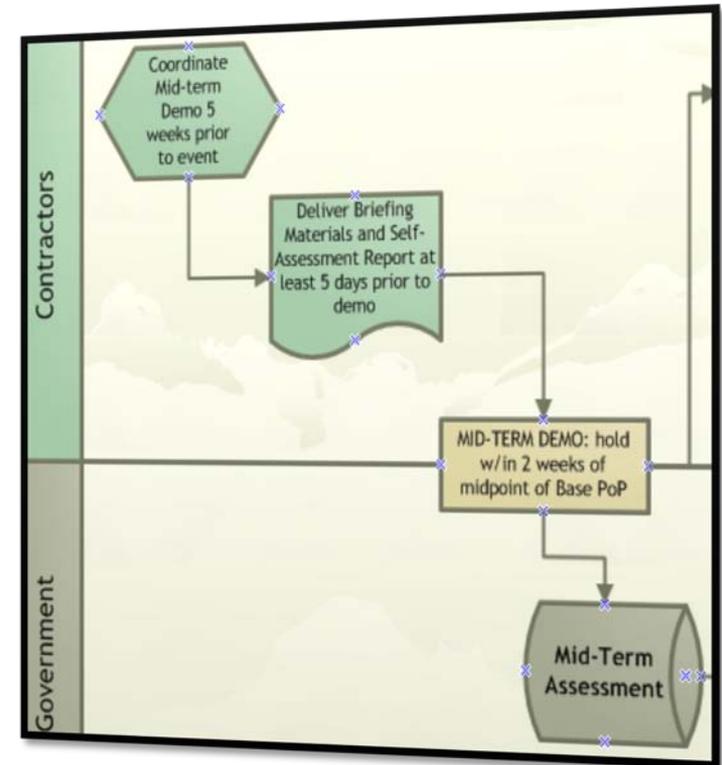


Down-Select Process

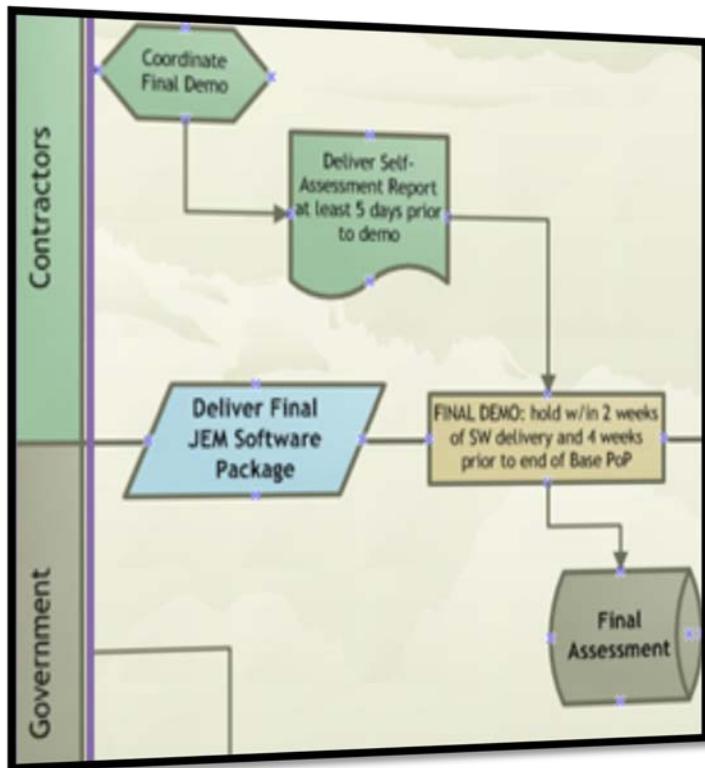


During the first year of contract performance, the Gov't will assess each contractor's progress toward developing a compliant, usable JEM2 software baseline with enhanced capabilities. The contractor receiving the higher assessment score will be 'down-selected' to receive follow-on option periods of performance.

- Contractor schedules Demo
- Occurs within 2 weeks of the midterm point of the base period
- Held at JEM Prototyping Lab at SSC PAC
- Attended by JEM PMO, JPM IS leadership, SPAWAR 2.0, and other JEM PMO-approved stakeholders
- 1-day event
- Provides Self-Assessment Report and Briefing Materials prior to Demos
- Demonstrates to-date software and explains how software meets the assessment criteria
- Prepares a status review to brief the PMO on the current cost, schedule, and performance status metrics of the JEM software



Final Demonstration



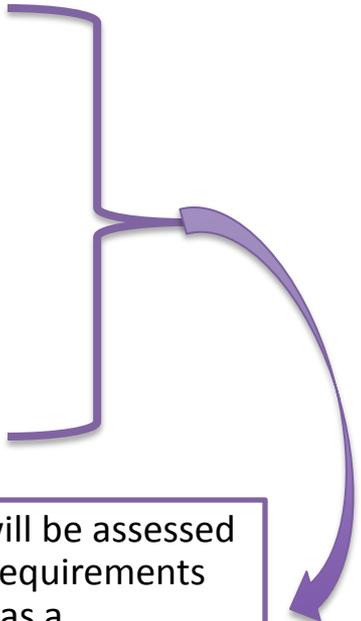
- Contractor schedules Demo
- Occur within 2 weeks of final software delivery and at least 30 days prior to end of the base period
- Held at JEM Prototyping Lab at SSC PAC
- Attended by JEM PMO and JPM IS leadership, SPAWAR 2.0, and representatives of the Warfighter community
- 1-2 day event
- Provides completed Self-Assessment Reports and Briefing Materials
- Demonstrates final JEM software and explains how the software meets the assessment criteria



Mid-term and Final Assessment Criteria



#	Criterion	Metric	Method
1	Contract Compliance	% Compliant	Contract Compliance Checklist
2	Usability	Consolidated Survey Score	Usability Surveys
3	CCMI Compliance Level	% Compliant	CCMI Checklist
4	Improvements of Existing Capability		
4.1	Hosting in Web and Windows Environment	Adjectival Grade	Contractor Demo followed by Independent Gov't Analysis
4.2	Models	Adjectival Grade	Contractor Demo followed by Independent Gov't Analysis
4.3	Web Services	Adjectival Grade	Contractor Demo followed by Independent Gov't Analysis



#1

- The Contractor will be assessed on its level of compliance with the terms of the Performance Work Statement (PWS)
- Level of compliance will be described as a percentage

#3

- The Contractor's delivered software will be assessed on its level of compliance with CCMI requirements
- Level of compliance will be described as a percentage

#2

- The Contractors will be assessed on the software's overall usability
- The usability criterion will be described as a consolidated survey score
- Unlike the Midterm Assessment, the Final Assessment will take into account feedback provided by Warfighters

#4

- The Contractor's delivered software will be assessed on its level of improvement to existing JEM capability The assessment will be made upon the following specific existing capabilities:
 - 1) Hosting in Web and Windows Environments
 - 2) Models
 - 3) Web Services

Final Assessment will use the same metrics as the Midterm Assessment



Part V



Part V: Optional Technical Demonstration	CATT
	JP2UI / JPSCWSI



BACKUP



CCMI Functionality



Agent Material	Fixed and Adaptive Grid Input	Met Processor Integration	Full use of configuration inputs	Horizontal Slice
Chemical Properties	Explosive Warhead Data	Nuclear Tool Server	Metadata Queries	Surface Slice
Biological Properties	Hazardous Container Data	Kdtrans	Output Generator	Metadata Queries
Chemical Effects	Geographic	Nemesis	Adaptive Grids	Cloud Shine
Biological Effects	Land Use	Newtrans	Fixed Grids	SCIPUFF
Exposure Thresholds	Land Use Properties	Nweprompt	Shelter Stay Time	Instantaneous Release List
Transport Vehicles	Terrain	PDCALC	AEGLs Support	Stack Release
Effects	Population	SWIM	Probability of Effects	Continuous Release
AEGL Output	Urban	Surface Observation Input	Performance Degradation	Instantaneous Release
Probability of Effects	Analytical ISM	Profile Observation Input	Metadata Queries	Fixed Wind Input
Performance Decrement	Instantaneous Release	Fixed Wind Input	Dosage Contours	Observation Met Input
Metadata Queries	Instantaneous Release List	Gridded Met Input	Concentration Contours	Met Observation Input
Shelter Stay Time	Continuous Release	2D/3D Output Metadata	Vertical Slice Contours	Liquid Pool Release
Conservative AEGLs	Stack Release	2D/3D Output Data	Radiological Contours	Sampler Input
Single Shelter	Moving Release	METGM	Nuclear Contours	Sampler Output
Multiple Shelter	Pool Release	Meteorological Data Server	Deposition Contours	Dosage Output
Metadata Queries	Off-Diagonal Release	Live Server Download	Urban Dispersion Model	Concentration Output
Effects Collator	ITRANS ISM w/CBSRC	Surface Observations	Continuous Release	Deposition Output
AEGL Output	Full support for ITRANS input (except MET Processor)	Profile Observations	Instantaneous Release	Full decoupling from Met Source/Processor
Shelter Stay Time	Full support for ITRANS output	Gridded Data	Pool Release	Update to use new Geographic component
Probability of Effects	NWD ISM	SWIFT (as Met Source)	Fixed Grid Output	Radiological runs
Performance Decrement	Simple run using Yield, HOB, Fission Fraction	Observations Input	Dosage Output	Nuclear runs
Population Tables	Nuclear Prompt Effects	Gridded Input	Concentration Output	Vertical Slice
Metadata Queries	Other inputs	Injected Geo Terrain Data	Deposition Output	Vertically Integrated Horizontal Slice
Casualty Tables	RTH Integration	Generation of gridded output	Vertical Slice	UTM coordinate