Three-Dimensional Expeditionary Long-Range Radar (3DELRR)

Industry Day Administrative Brief

1Lt Talaya Jones
ESC/HSNG

U.S. AIR FORCE

6 March 2012

Welcome to Industry Day!

- **Multiple Companies from Industry**
  - **COBHAM**
  - **Lockheed Martin**
  - **Mercury Computer Systems**
  - **Northrop Grumman**
  - **Raytheon**
  - **Saab Sensis**
  - **Scientific Research Corp. (SRC)**
  - **Telephonics**
- **Public Affairs**
- **Government Accountability Office (GAO)**

Overview

- Welcome
- Ground Rules
- Brief Program Description
- Administrative Notes
- Schedule
- One-on-One Info
- Bidder’s Library

Disclaimer

- **The remarks today of Government officials involved in the 3DELRR program should not be considered a guarantee of the Government's course of action in proceeding with the program**
- **The information provided today reflects current Government intentions of how the program may be carried out, and is subject to change based on a variety of circumstances, including input from prospective contractors**
- **The solicitation itself is the only document that is relied upon in determining the Government's requirements**

Ground Rules: Base Theater

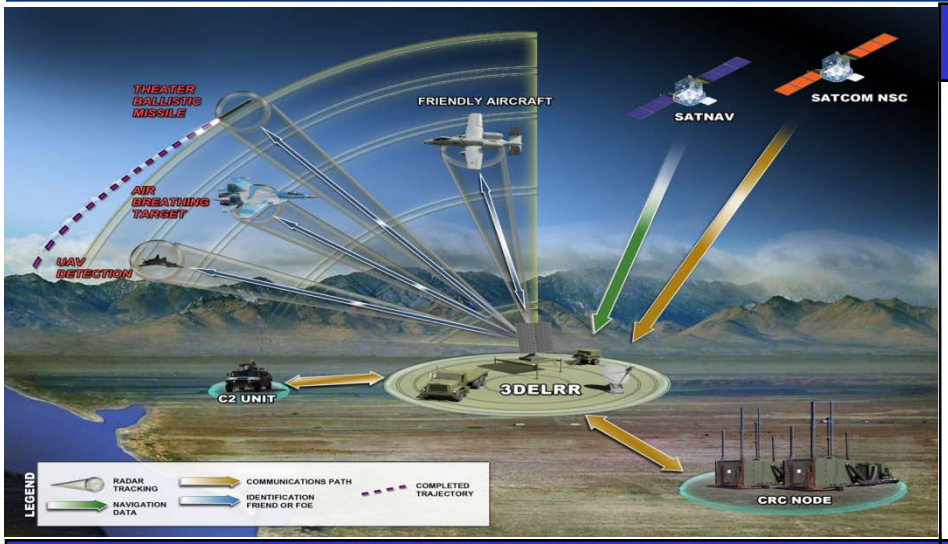
- **There are exits near stage, in rear of auditorium, and through the main entrance doors.**
  - **In case of an emergency, please use the nearest one.**
- **Food and Drinks**
  - **No food or gum**
  - **Non-alcoholic beverages are permitted**
  - **At the conclusion of today's event, please take your trash with you.**

Ground Rules: Industry Day

- **No Recording**
- **Turn off cell phone ringers**
- **All Briefings, attendance roster, and Questions & Answers will be posted on FedBizOpps**
- **Proprietary questions & answers will be addressed with individual companies and will NOT be posted on FedBizOpps**
- **General questions may be answered during the briefings at PCO's discretion**
- **One-on-One Sessions will be timed**
- **There will be no side-bar meetings with any Government entity**

U.S. AIR FORCE

Three-Dimensional Expeditionary Long-Range Radar (3DELRR) Pre-MDAP



Warfighter Benefits

- Detect, identify, track, and report aircraft and missiles in support of the Joint Forces Air Component Commander through the Ground Theater Air Control System
- Will correct current radar system shortfalls by providing the capability to detect and report highly maneuverable, small radar cross section targets as well as discriminate the type of a non-cooperative aircraft
- Will mitigate the sustainability and maintainability concerns which plague the current system

Description

Three-Dimensional Expeditionary Long-Range Radar (3DELRR) will be the principal USAF long-range, ground-based sensor for detecting, identifying, tracking, and reporting aircraft and missiles in support of Theater Commanders. Required to replace the USAF AN/TPS-75 and, potentially, USMC AN/TPS-59 radars.

System Capability

3DELRR will provide operators with a precise, real-time air picture of sufficient quality to conduct close control of individual aircraft and detection and tracking of theater ballistic missiles under a wide range of environmental and operational conditions.

Specifics

- Requirements Basis: 3DELRR Technical Requirements Document, 13 Oct 11 (Rev D + Notice 1)
- Major Customers: ACC, ANG Air Control Squadrons, and, potentially, MARFOR
- Contractor(s): TBD
  Contracts Awarded ~4QFY12
- External Interest: Preliminary Major Defense Acquisition Program and USD (AT&L) Special Interest Program

3DELRR Team

ESC
PEO: Lt Gen Charles Davis
ESC/HSN
SPM: Ken Francois

ESC/HSNG
PM: Lt Col Brian McDonald
DPM: Suzanne Farrell

User
ACC/A8YB
Maj James Wilson
Mark Nobile

Liaisons to ACC
Rex Budwig
Melissa Errett

Lead Engineer
Kevin Ray

Technical Support Leads
MITRE: *Dave Potter(M)
MIT/LL: *Jeff Hargreaves (LL)

Product Support Mgr (ESC/HSN)
Tracy Brooks

User
USMC CD&I
Lt Col Dennis Parks
Harry Franklin

USMC MCSC
Ken Van Zandt

Functional Support

SE&I Lead
Dave Allen (M)

Systems Engineering
Leah Reichner
Jonathan Bernays (LL)
*Jeff Hargreaves (LL)
Roy Lee (LL)
Frank Picca (M)
*Dave Potter (M)
Tom Shields (M
Nick Tomljanovich (M)
SW / OTD Engineering
Dave Gutzka
Mary Ann Lapham (SEI)
Kim Lennon (M)
Jeff McHarg (LL)
HW / Mech Engineering
Brett Lussier
Jared Ahern (M)
Chris Galbraith (LL)
M&S Engineering
Charles Darrah (M)
Tom Guella (M)
Siva Lakshmanan (M)
Mike Otero (M)
Lynn Cistulli (LL)
Jim Riley (LL)
*Dale Izatt (LL)
Greg Robertshaw (M)
Security Engineering
Rob Daunais
Ken Pugh
Ron Savoury
"Ility" Engineering
Mike Ryan
Thacher Knight (M)

Logistics
Ken Ledoux
Dennis Doyle

Sustainment
Maj Dennis Uyechi
Mark Rollings
Irving Allen

USMC
Richard Frank
Todd Shell

Test & Evaluation
John Cahalane
*Dale Izatt (LL)

DT&E
Andy Lounsbury
James Garnett
OT&E
Maj Mark Hahnert
MSgt Jason Lively

Contracts Development
Maj Christopher Cherry
*Chai Mutsalklisana
Bard Connally

FFRDC/Govt Labs
Lt Talaya Jones

Program Control
Eric Gurgo
Vacant

Budget / POM
Jeff Ponkey
Config / Data Mgt
Kathy Austin
Cost Estimating
Colin Riggs
Andrew Walker
Earned Value Mgt
Vacant
Risk Mgt
Lt Adam Melssen
Operations Support
Meghan Rosso
Prime Contract Mgt
Vacant
Schedule / IMS
Andy Starvaski
Workflow
Vacant

Programmatics
Steve Conroy
Vacant

Acq Documentation
Bill Kossowan
Joe Raynus
Susan Thackeray
Acq Reporting
Gerry Upton
Mgt Reviews
Franni O'Hara
Karin Killeen
Steve Spund
Official Files
*Chai Mutsalklisana

Acquisition (ESC/AQ)
Rick Andreoli
Rob Toombs

Contracting (ESC/HSNK)
PCO: Ron Saville
Buyer: Robert Durant
Buyer: Paul Brown

Finance (ESC/HSNF)
Donna Lepine

Legal (ESC/JA)
Maj Tammie Sledge

Program Support (ESC/HSN)
Kristina DeStefano
Gary Abbate

Program Security (ESC/HSN)
Valerie Simpson

Legend
- Military
- Govt Civilian
- FFRDC
  - M = MITRE
  - LL = MIT-Lincoln Laboratory
  - SEI = S/W Engineer. Institute
- Advisory & Assist. Services
- External Agency

** Indicates multi-tasking*

Effective
2012-02-24

Administrative Notes: Security Concerns

- **Properly mark documents sent to the Government**
  - **NDA/Proprietary Information Guidelines**
  - **Outer Envelope "To" Address:**

    ESC/HSNG

    ATTN: Security

    11 Barksdale St.; Bldg 1614

    Hanscom AFB, MA 01731

- **Require DD Form 2345, Militarily Critical Technical Data Agreement**
  - **If not already in place w/ Government, must be in place prior to proposal submittal**
  - **Submit a copy of completed DD Form 2345 to PCO**

Administrative Notes: Security Concerns cont.

- **Industry Day discussions are unclassified on 6 Mar 12**
- **Classified up to SECRET during 7 March 12 One-on-Ones**
- **Ability to access ITAR and Classified information will be required to execute this program**

Administrative Notes: Industry Day

- **Purpose: Enable defense industry community to better understand 3DELRR acquisition approach and USAF and ESC acquisition processes**

- **Format will encourage information exchange between Government and industry audience to any areas where additional clarification and/or improvement are needed**

Schedule

Start Time	Tuesday 6 Mar 2012 (Base Theatre)
8:00 AM	Check-in
8:30 AM	3DELRR Briefings & Open Forum Administrative - Lt Jones, Project Officer
8:40 AM	Acquisition Strategy - Lt Col McDonald, Program Manager
9:50 AM	BREAK
10:00 AM	RFP - Maj Cherry, Contracts Development Lead
11:10 AM	Pre-Submitted Q&A
12:00 PM	

Schedule cont.

Start Time	Wednesday 7 Mar 2012 (Bldg 1614)
8:00	Lockheed Martin
10:00	Transition
10:30	Northrop Grumman
12:30	Transition
13:30	Raytheon
15:30	

One-on-One Session Process

- All one-on-ones will be in Building 1614
- Arrive 15 min prior to start of One-on-One
- Upon arrival, wait in the main lobby and a Program Office representative will escort you to your session
- Sessions will be timed for exactly 2 hrs
- Parking spaces can be difficult to locate at bldg 1614
  - Please plan accordingly

What is the 3DELRR Bidder's Library

- **The 3DELRR Bidder's Library is a collection of unclassified and classified documents**

- **Contractors can come into the PMO to read these documents**

How to gain access to the BL

- **First, you need to schedule an appointment to visit the Bidder's Library through Lt. Jones**
  - **781-225-9053**

- **If you have previously visited the Bidder's Library, you may request a copy of the documents to be sent to the mailing address you provided during your visit**

Currently in the Bidder's Library (Unclassified)

	TITLE	CLASSIFICATION	UPDATED FROM RFP REV F
1	3DELRR Security Classification Guide 12 Jan 11	FOUO/ITAR	No
2	3DELRR Technical Requirements Document Revision D + Notice 1 13 Oct 11	FOUO/ITAR	No
3	3DELRR Draft Program Protection Plan 6 Jan 12	FOUO	Yes
4	3DELRR Systems Engineering Plan 23 Nov 10	FOUO	No
5	LO/CLO Security Classification Guide 1 Oct 02	UNCLASSIFIED	No
6	Critical Information List (PPP Annex I) 3 Feb 12	FOUO	Yes
7	CRC Security Classification Guide 19 Dec 06	FOUO	No
8	Anti Tamper Security Classification Guide 17 Mar 10 Change 1, 18 Apr 11	FOUO	No
9	3DELRR Draft Test and Evaluation Master Plan 19 Oct 11	FOUO	No

Currently in the Bidder's Library (Unclassified)

	TITLE	CLASSIFICATION	UPDATED FROM RFP REV F
10	Critical Item Development Specification for the Radar System Interface (Including Pre-Planned Product Improvements). 31 Aug 07 (3DELRR I-12 interface)	UNCLASSIFIED DISTRIBUTION STATEMENT F	No
11	TAOC Radar System Interface Specification for the Tactical Air Operations Center (TAOC) System Post Production Life Cycle Support Program, Revision K, 29 Feb 08 (3DELRR I-14 interface)	UNCLASSIFIED FOUO DISTRIBUTION STATEMENT C	No
12	Interface Requirements Specification for the Aviation Command and Control Composite Tracking Network and the Three-Dimensional Expeditionary Long-Range Radar, Revision 1.7, 16 Mar 11 (3DELRR I-21 interface)	UNCLASSIFIED FOUO DISTRIBUTION STATEMENT D	No

Currently in the Bidder's Library (Classified)

	TITLE	CLASSIFICATION	UPDATED FROM RFP REV F
1	SCG Appendix A	Secret	No
2	TRD Rev D Appendix A	Secret	No
3	PPP Classified Annexes	Secret	Yes
4	Section L Appendix E	Secret	Yes
5	Statement of Work Appendix A	Secret	Yes
6	3DELRR Classified CDRLs	Secret	No

Questions?

Three-Dimensional Expeditionary Long-Range Radar (3DELRR)

Acquisition Strategy

Lt Col Brian McDonald
Program Manager
ESC/HSNG

6 March 2012

U.S. AIR FORCE

Purpose

- **Highlight changes in 3DELRR Acquisition Strategy for Offerors**
- **Give Offerors an understanding of the context behind program changes**
- **Solicit comments on specific items from industry**

Outline

- 3DELRR Program Change
- Acquisition Strategy
- Tech Development Phase
  - Pre-EMD Content
  - Requirements
- Source Selections
- Aspects That…
- Schedule

3DELRR Acquisition Strategy
(Assumes PBR12 Full Funding)

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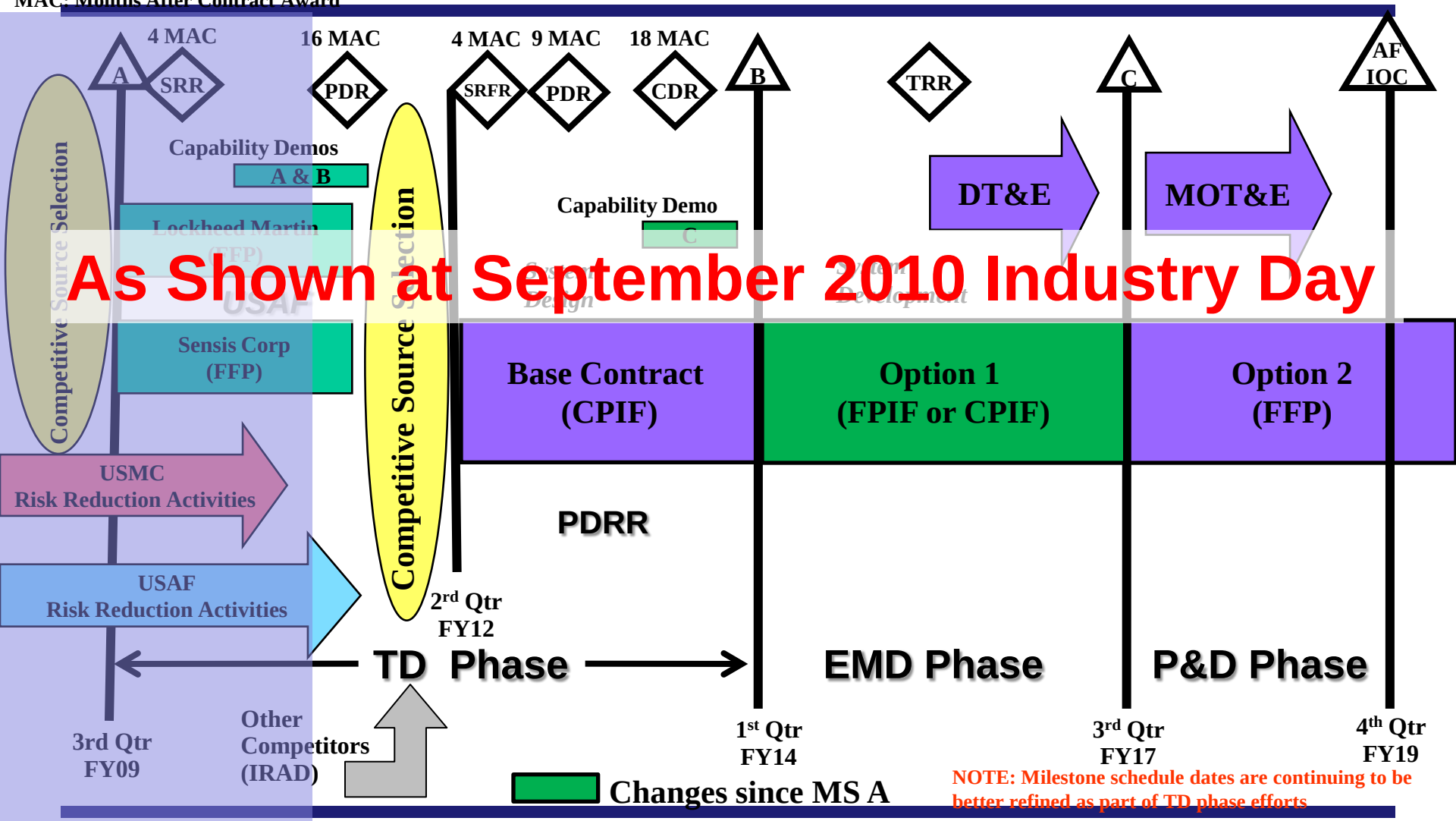
MAC: Months After Contract Award



As Shown at September 2010 Industry Day

NOTE: Milestone schedule dates are continuing to be better refined as part of TD phase efforts

Communications with Industry

- Aug 10 Draft RFP Rev B posted
- Sep 10 Industry Day @ Hanscom AFB
- Jan 11 Draft RFP Rev C posted
- Mar 11 Draft RFP Rev C.1 posted
- Jun 11 Draft RFP Rev D posted
- Aug 11 Draft RFP Rev E posted

Relatively larger changes

- Oct 11 Draft RFP Rev F posted
- Oct 11 RFP Revision Forum @ Hanscom AFB
- Feb 12 RFI on affordability & requirements
- Feb 12 Draft RFP Rev G posted
- Mar 12 Industry Day @ Hanscom AFB

You Are Here

3DELRR Program Change

- **Impetus of 2011 program strategy and RFP changes:**

  - **AT&L: Continue competition to MS-B**
  - **PEO: Increase requirements trade space (dRFP Rev F)**
  - **SAE: Determine requirement sufficiency**
  - **CAPE: Re-assess program affordability (PB 2013)**
  - **DMAG/JROC: What mission(s)/level of capability is needed and what is affordable? (CJCSI 3170.01H)**

AT&L – Acquisition, Technology, & Logistics
PEO – Program Executive Officer
SAE – Service Acquisition Executive
CAPE – Cost Assessment & Program Evaluation
DMAG – Deputy's Management Action Group
JROC – Joint Requirements Oversight Council

3DELRR Budget Change

(Source: http://www.saffm.hq.af.mil/budget)

PB12

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force | **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY
3600: *Research, Development, Test & Evaluation, Air Force*
BA 4: *Advanced Component Development & Prototypes (ACD&P)*

R-1 ITEM NOMENCLATURE
PE 0604283F: *BMC2 Sensor Development*

COST ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	21.822	-	60.250	-	60.250	117.713	95.432	98.842	81.727	Continuing	Continuing
645363: *MP-RTIP*	21.822	-	-	-	-	-	-	-	-	Continuing	Continuing
646002: *Three Dimensional Expeditionary Long Range Radar*	-	-	60.250	-	60.250	117.713	95.432	98.842	81.727	Continuing	Continuing

PB13

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force | **DATE:** February 2012

APPROPRIATION/BUDGET ACTIVITY
3600: *Research, Development, Test & Evaluation, Air Force*
BA 4: *Advanced Component Development & Prototypes (ACD&P)*

R-1 ITEM NOMENCLATURE
PE 0604283F: *BMC2 Sensor Development*

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	12.994	30.362	114.417	-	114.417	-	-	-	-	Continuing	Continuing
646002: *Three Dimensional Expeditionary Long Range Radar*	12.994	30.362	114.417	-	114.417	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• RDT&E, PE, 0207455F, Three D...: *RDT&E*	0.000	0.000	0.000	0.000	0.000	70.160	69.533	89.985	54.000	Continuing	Continuing
• OPAF, PE, 0207455F, Three Dimens...: *OPAF*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	66.644	Continuing	Continuing

($M)	FY12	FY13	FY14	FY15	FY16	FY12-16
PB13 – PB12	(29.9)	(3.3)	(25.3)	(29.3)	8.3	(79.5)

3DELRR Contract Funding Change

(Source: FedBizOpps)

3DELRR Funding Profile ($M)	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	Total
3600 (PDRR)	40	61	0	0	0	0	0	0	101
3600 (EMD)	0	25	100	101	114	58	0	0	398
3080 (LRIP)	0	0	0	0	0	58	159	23	240
Total	40	86	100	101	114	116	159	23	739

Draft RFP Rev F
Section L

3DELRR Funding Profile ($M)	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Total
3600 (PDRR)	6	30	0	0	0	0	0	0	0	36
3600 (EMD)	0	0	53	51	71	28	6	0	0	208
3080 (LRIP)	0	0	0	0	0	0	54	157	24	235
Total	6	30	53	51	71	28	60	157	24	480

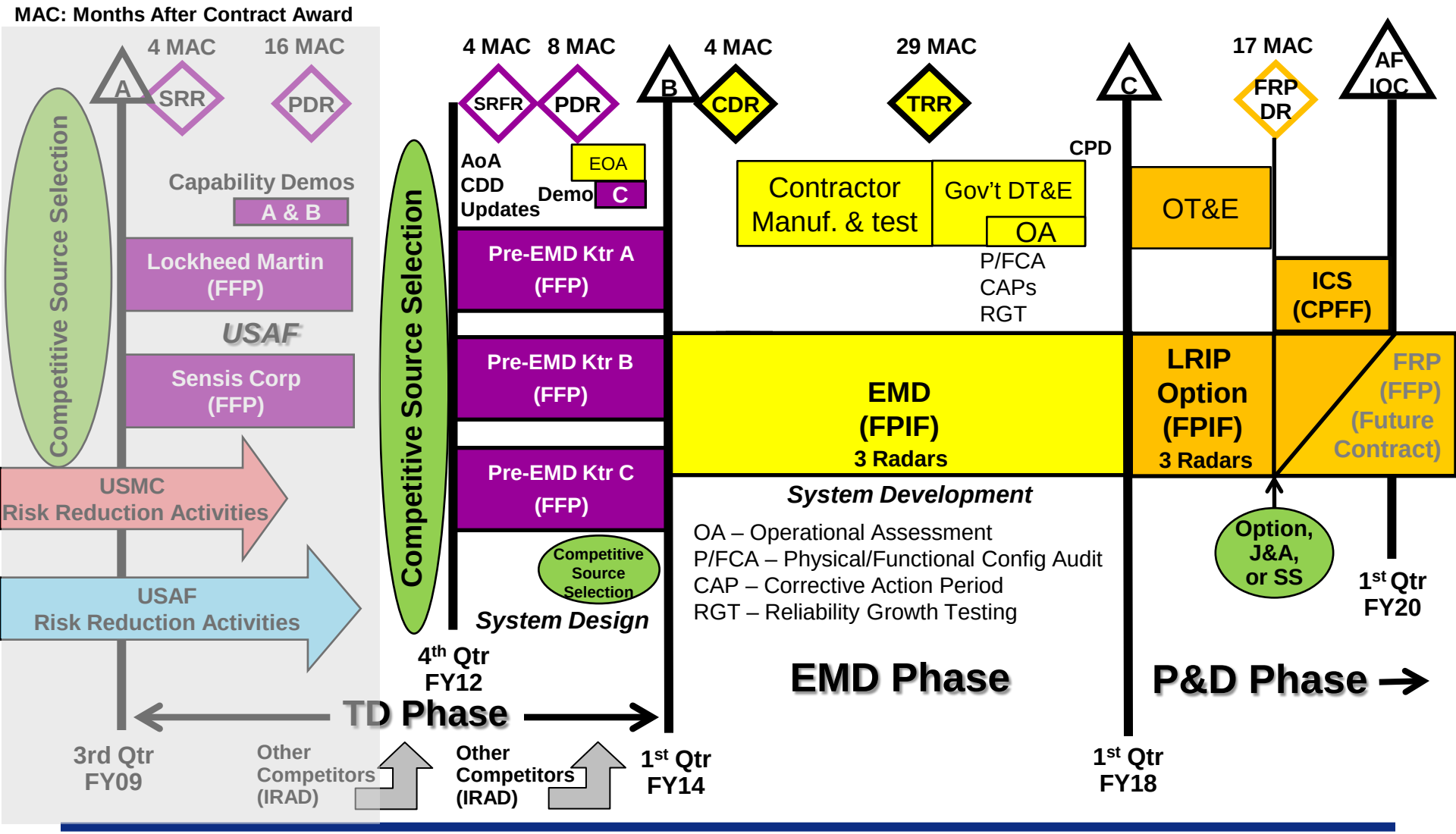
RFI (Feb 12)
Table 1

3DELRR Available Contract Funding (TY$M)			
Contract Period	FY12	FY13	Total *
3600 (Pre-EMD)	18	90	108

Draft RFP Rev G
Section L

($M)	FY12	FY13	FY14	FY15	FY16	FY12-16
RFI – Rev F	(22)	4	(47)	(50)	(43)	(158)

3DELRR Acquisition Strategy
(As of Feb 2012)



Acquisition Strategy Comparison

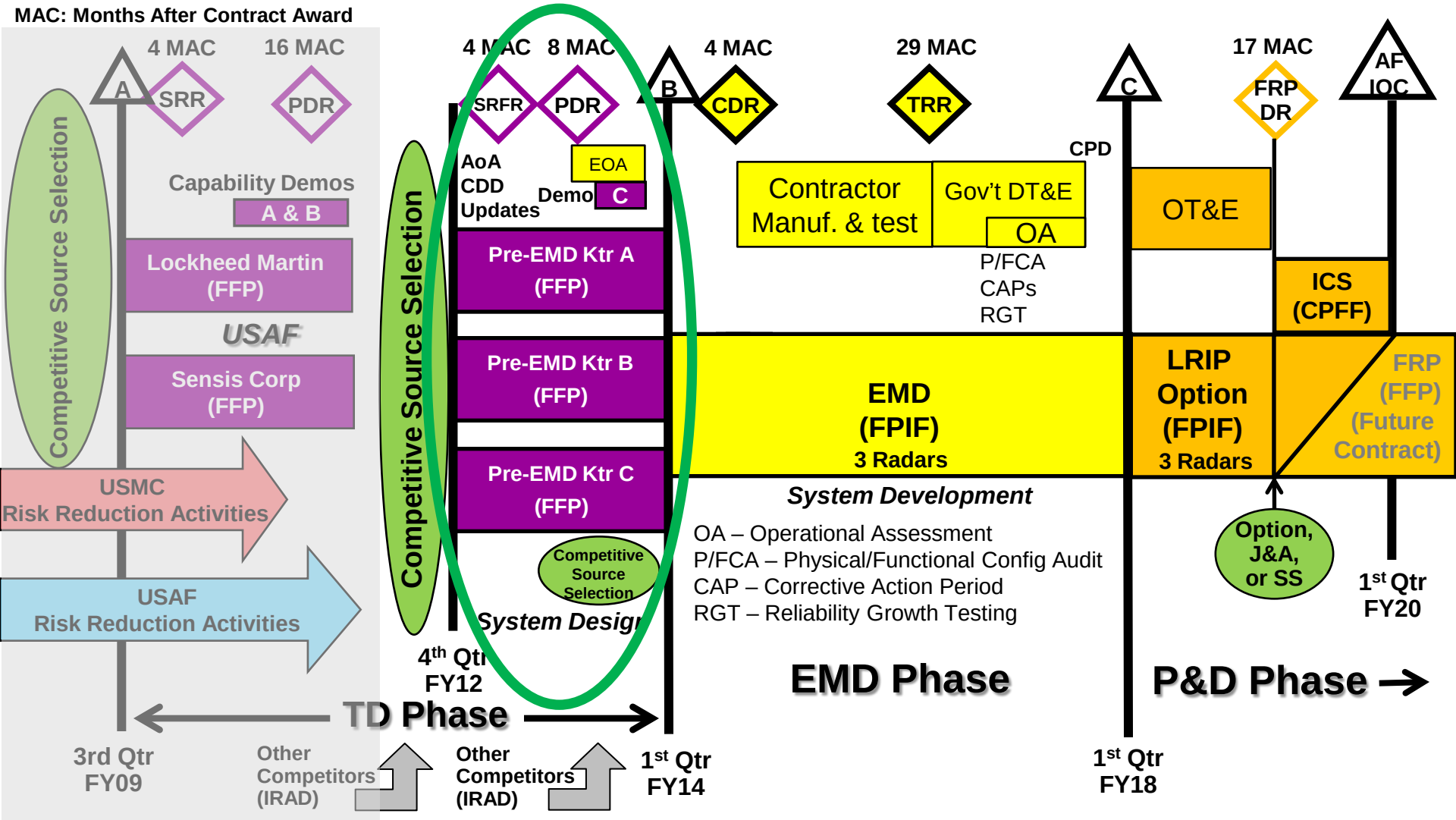
As of Sep 2010

- CDR before MS-B
- PDRR + 2 Options
- Single award for PDRR
- CPIF contracts
- As few as 2 Source Selections to FOC
- Multi-service OT&E
- 2QFY12 Contract Awd
- 1QFY14 MS-B
- 4QFY19 IOC

As of Feb 2012

- CDR after MS-B
- Pre-EMD only
- Multi-award for Pre-EMD
- FFP/FPIF contracts
- No fewer than 3 Source Selections to FOC
- OT&E
- 4QFY12 Contract Awd
- 1QFY14 MS-B
- 1QFY20 IOC

3DELRR Acquisition Strategy
(As of Feb 2012)



TD Phase: Pre-EMD Content

Old: PDRR w/ 1 Ktr
(18 month PoP)

New: Pre-EMD w/ ≤ 3 Ktrs
(15 month PoP)

Common Content

- SR/FR or SRR / SFR
- Full PDR (functional & allocated baselines)
- TRA for CTEs (verify 6 or higher)
- MRA (verify 6 or higher)
- Demo C with GaN T/R modules
- Defense Exportability Features assessment
- Milestone B doc support

- **Baseline**
  - Based on completed TRD Rev D
  - Pre-PDR review
  - Modeling & simulation
  - 67 CDRLs

- **Added (+)**
  - Capability vs cost analysis
  - TRD Rev E to be created
- **Removed (-)**
  - Pre-PDR review
  - Modeling & simulation
  - ~20% of CDRLs

Industry Ideas on Making Pre-EMD Effort More Efficient/Lean?

TD Phase: Requirements

- **Current 3DELRR TRD: Rev D + Notice 1 (13 Oct 2011)**
  - **No change in requirement values from TRD Rev D (28 Mar 2011)**
  - **COMACC concurred with TRD Rev D on 9 May 2011**
  - **Notice 1 due to removal of Note 5 that discussed proposal compliance**
  - **Contains 338 requirements**
    - **48 contain both threshold and objective (T/O) values**
    - **278 are threshold only**
    - **12 are objective only**

    - **8 are labeled as KPPs (T/O on all but Survivability)**
    - **5 are labeled as KSAs (T/O on all but Mobility)**

No Change in 3DELRR Requirements Since TRD Rev D

TD Phase: Requirements

- **Success of Pre-EMD effort will be determined largely by success of Requirements Analysis (SOW Para 1.9.19)**
  - **Deliver results NLT 75 calendar days after award**
  - **Government will modify TRD to Revision E**
  - **TRD Revision E will be put on contract and serve as the baseline set of requirements for SRFR (NLT 120 days) and PDR (NLT 240 days)**
- **TRD Rev E to be more affordable than TRD Rev D**
- **We have experience doing this under the same circumstances**

Fast

Design Independent

Affordable, Best Value

Industry Ideas on Timing of Associated Events?

TD Phase: Requirements

- **Requirements Analysis (SOW Para 1.9.19)**
  - **Government assertion of top cost drivers:**
    - **Mobility**
    - **Accuracy**
    - **False Alarms**
    - **Surveillance Volume**
    - **Range**
  - **Common analysis of at least some top cost drivers by all Offerors will facilitate TRD Rev E**
  - **RFI responses and RFP Q&A will shape final list**
  - **Can Offerors reach consensus together?**

Industry Consensus on Top Cost Drivers & Ranges?

Source Selections

- **Pre-EMD Source Selection *is* an LPTA**
  - **No Past Performance criterion**
  - **No Small Business criterion**
  - **~90 days from RFP release to contract award**

…but, keep in mind…

Source Selections

- **EMD Source Selection planned as tradeoff**
  - **Simultaneous to contract effort (Demo C)**
  - **PDR & Demo C to factor into source selection**
    - **Oral presentation to SS Team?**
  - **Past Performance criterion**
  - **Small Business criterion**
    - **Considering Small Business Participation Plan**
    - **Prepare now for supply chain**

Aspects That… Concern Me

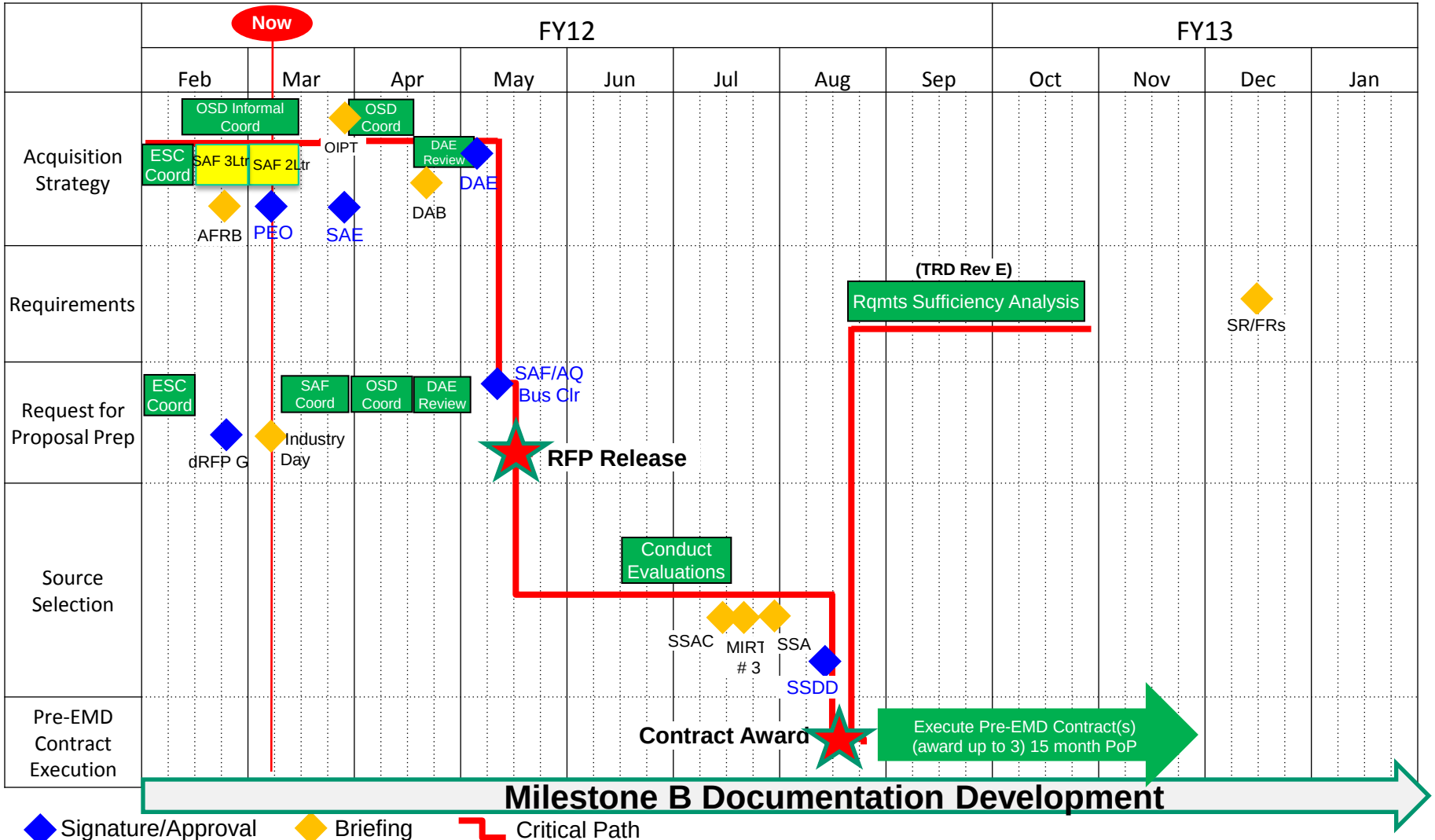
- **Meeting projected RFP release date**
- **Completing TRD Rev E and putting on contract for on schedule SR/FRs & PDRs**
- **Simultaneity/amount of activity preceding MS-B**

Simultaneous Activity:
- Contractor Demo C x2 or 3
- EMD/LRIP Source Selection
- Final Milestone B prep
  -- CDD Update
  -- TRA / MRA

Aspects That… Excite Me

- **Pilot for Defense Exportability Features**
- **Open Technology Development**
- **3DELRR's candidacy as replacement for long range radar family**

3DELRR 12 Month Schedule



Summary

- **Significant program change during 2011**
  - **Budget cut**
  - **Requirements examination**
- **Upcoming RFP scope limited to TD Phase**
  - **Multiple awards**
  - **TRD Rev E**
  - **PDR**
  - **Demo C**
- **Need strong industry performance to achieve MS-B on cost and on schedule**

Questions?

Three-Dimensional Expeditionary Long-Range Radar (3DELRR)

RFP Rev G

Maj Christopher Cherry
RFP Development IPT Lead
ESC/HSNG

U.S. AIR FORCE

6 March 2012

Purpose

- **Review RFP Rev G with potential Offerors**
- **Opportunity for live Q&A**

TD Phase (Pre-EMD) Objectives

- Capability versus cost requirements analyses
- Requirements refinement – generation of TRD Revision E
- Conduct System Requirements / Functional Review (SRFR)
- Design system to meet final requirements and for production
- Conduct full system Preliminary Design Review (PDR)
- System integration work
- Initial software development
- Conduct logistics and sustainment preparations
- MS-B Technology Readiness Assessment (TRA)
- Conduct Capability Demonstration C

Pre-EMD Will Inform Cost, Schedule, and Performance Requirements for EMD RFP and Source Selection

TD Phase Summary of Changes

Before (Rev F)	After (Rev G)
Scope = TD Phase/EMD/LRIP	Scope = TD Phase only
Tradeoff	Lowest Price Technically Acceptable (LPTA)
Contract Award to one Contractor through LRIP	Contract Awards ≤ 3 Contractors to MS-B
Cost-type contracts	Fixed Price-type contracts
One RFP/source selection to EMD	Two RFPs/source selections to EMD
Fully funded	Fit-to-budget FY12-13 & ~50% funded FY14-17
TRD Rev D on contract	Create new requirements baseline TRD Rev E
One PDR	≤ 3 PDRs
More TD Phase Reviews and CDRLs	Less Reviews and CDRLs
At most one Demo C	≤ 3 Demo Cs
MS-B 1QFY14	MS-B 1QFY14 (no change)

TD Phase Pre-EMD RFP Basics

- Full & open competition, LPTA Source Selection for Pre-EMD
  - Continues competition to Milestone B
  - Multiple contracts (≤ 3, based on market research)
  - For completion of TD Phase only
- Evaluation Criteria (RFP Rev G)
  - Factor 1: Technical
    - Subfactor 1: Architecture and Design (Acceptable or Unacceptable)
    - Subfactor 2: Technical Maturity (Acceptable or Unacceptable)
    - Subfactor 3: AESA Prototype (Acceptable or Unacceptable)
  - Factor 2: Price (Evaluated in order lowest to highest)
  - Past Performance waived
    - Documented in Determination & Findings (D&F) per FAR 15.304 (c)(3)(iii)
  - No Relative Non-Price Factor Importance
- TRD Rev D + Notice 1 is not contractually binding
  - A departure point of reference for cost vs. capability analysis

Basis for Contract Award Source Selection Process

FAR 15.101 - 2 - Lowest Price Technically Acceptable Source Selection Process. From Section M, para 1.1

(a) The lowest price technically acceptable source selection process is appropriate when best value is expected to result from selection of the technically acceptable proposal with the lowest evaluated price.

(b) When using the lowest price technically acceptable process, the following apply:

(1) The evaluation factors and significant subfactors that establish the requirements of acceptability shall be set forth in the solicitation. Solicitations shall specify that award will be made on the basis of the lowest evaluated price of proposals meeting or exceeding the acceptability standards for non-cost factors. If the contracting officer documents the file pursuant to 15.304(c)(3)(iii), past performance need not be an evaluation factor in lowest price technically acceptable source selections. If the contracting officer elects to consider past performance as an evaluation factor, it shall be evaluated in accordance with 15.305. However, the comparative assessment in 15.305(a)(2)(i) does not apply. If the contracting officer determines that a small business' past performance is not acceptable, the matter shall be referred to the Small Business Administration for a Certificate of Competency determination, in accordance with the procedures contained in subpart 19.6 and 15 U.S.C. 637(b)(7)).

(2) Tradeoffs are not permitted.

(3) Proposals are evaluated for acceptability but not ranked using the non-cost/price factors.

(4) Exchanges may occur (see 15.306).

End of FAR 15.101-2]

- **Technical tradeoffs will not be made and no additional credit will be given for exceeding acceptability.**
- **The first award will be made to the acceptable Offeror with the lowest evaluated price, which is deemed responsible in accordance with the Federal Acquisition Regulations and whose proposal conforms to the Solicitation requirements. If the Government elects to make additional awards, each successive award will be made on the same aforementioned basis until available Government funding is exhausted.**

Basis for Contract Award Source Selection Process

- **Factor 1 – Technical** (applicable to each individual subfactor)

Table 2.2-1 Technical Acceptable/Unacceptable Ratings

Rating	Description
Acceptable	Proposal clearly meets the minimum requirements of the solicitation.*
Unacceptable	Proposal does not clearly meet the minimum requirements of the solicitation.*

* NOTE: Meeting the requirements of the 3DELRR Technical Requirements Document Revision D is not a requirement of the solicitation. Any technical subfactor criterion that is evaluated as "unacceptable" will render the entire proposal unacceptable and ineligible for award.

- **Factor 2 – Price**
  - **The Offeror's Price proposal will be evaluated based upon the total evaluated price (TEP). The Government will determine Price reasonableness using one or more methods described in FAR 15.404-1.**

RFP Rev G
Section M Evaluation Criteria

- **Factor 1 Technical**
  - **Subfactor 1 Architecture and Design**
    - **A. Substantiates an Active Electronically Scanned Array (AESA) radar architecture and design, utilizing Gallium Nitride (GaN) based Transmit/Receive (T/R) modules, capable of performing the long-range radar (200 – 300 nmi instrumented range) detection and tracking mission for Air Breathing Targets (ABTs) and Theater Ballistic Missiles (TBMs).**
    - **B. Substantiates a modular open systems architecture by providing a self-computed Open Technology Development (OTD) score (as defined by TRD requirement 2.15.12 and Appendix F of TRD Rev D + Notice 1) that meets or exceeds a score of 75%.**
    - **C. Substantiates the design is transportable via road, air (C-130, C-17, C-5), rail car, and ship in a single load in accordance with MIL-STD-1366E.**
    - **D. Substantiates a reliable, maintainable, and available system architecture and design compliant with ANSI/GEIA STD-0009.**

RFP Rev G
Section M Evaluation Criteria

- **Factor 1 Technical (continued)**
  - **Subfactor 2 Technical Maturity**
    - A. **Identifies all Critical Technology Elements (CTEs) and provides clear and convincing rationale for selecting them. One CTE must be the GaN-based T/R module.**
    - B. **Substantiates all CTEs are at TRL 6 or above; or provides a plan to achieve the same by Capability Demonstration C.**
  - **Subfactor 3 AESA Prototype**
    - A. **Provides proof of program accessibility to a functioning, ground-based, radar demonstrator / prototype. Program access is sufficient to meet all contractual obligations.**
    - B. **Substantiates that the prototype is representative of the proposed radar architecture / design and is full-scale; or provides a plan to achieve full-scale by Capability Demonstration C.**
- **Factor 2 Price**

RFP Rev G
Section L Instructions to Offerors

- **Factor 1 Technical**
  - **Subfactor 1 Architecture and Design**

The Offeror shall propose a hardware, firmware and software architecture, design, and functionality for an Active Electronically Scanned Array (AESA) radar architecture, utilizing Gallium Nitride (GaN) based Transmit/Receive (T/R) modules, capable of performing the long-range radar (200 – 300 nmi instrumented range) detection and tracking mission for Air Breathing Targets (ABTs) and Theater Ballistic Missiles (TBMs) aimed at achieving the program requirements described in the Technical Requirements Document (TRD) and Statement of Work (SOW). For the purposes of this proposal, an AESA radar is defined as a radar system that has a T/R module behind every radiating element.

The description of the architecture and design shall be at a level suitable to convey to the Government the degree to which the proposed design will perform the TRD requirements. Achievement of TRD threshold values is not required for a compliant proposal. The Offeror shall identify all risks and mitigation strategies associated with this proposal approach. The Offeror shall provide radar coverage plots of their design for each of the missions and representative radar cross sections described in the TRD and clearly specify all assumptions made. The Offeror shall also provide associated detection and tracking metrics.

The Offeror shall describe their architecture and design in terms of the Open Technology Development (OTD) tenets described in the TRD. The Offeror shall provide a self evaluation of the design's OTD tenets and corresponding scores as defined by TRD requirement 2.15.12 and Appendix F.

The Offeror shall provide a block diagram of the proposed system and identify the size, weight, and power (SWaP) of the major system and subsystem components, including a description of the materials used for the components. The Offeror shall provide details showing that the design is transportable via road, air (C-130, C-17, C-5), rail car, and ship in a single load in accordance with MIL-STD-1366E.

The Offeror shall describe their Reliability, Maintainability, and Availability (RMA) program with respect to the RMA requirements of the program and how it adheres to the principles and guidance of ANSI/GEIA STD-0009. The Offeror shall also provide initial reliability predictions for all hardware and software configuration items.

RFP Rev G
Section L Instructions to Offerors

- **Factor 1 Technical (continued)**
  - **Subfactor 2 Technical Maturity**

    The Offeror shall identify all critical technology elements (CTEs) incorporated in the proposed radar system design, one of which shall be a Galium Nitride (GaN) transmit / receive (T/R) module, and describe the rationale for selecting them. For each CTE identified, provide the current TRL, the source of the rating, and full substantiation with supporting data. Describe the approach to mature each identified CTE not currently at TRL 6 to TRL 6 by Capability Demonstration C.

  - **Subfactor 3 AESA Prototype**

    The Offeror shall describe their functioning, ground-based, radar demonstrator / prototype that will be leveraged during the Pre-EMD Period via reference to the attributes of their proposed radar architecture / design. For the purposes of this proposal, a demonstrator/ prototype is defined as consisting of the elements listed in SOW Paragraph 1.9.15.a. The Offeror shall provide sample outputs of the demonstrator / prototype to show its functionality. If the demonstrator / prototype is not currently full-scale, describe the approach to accomplish Capability Demonstration C at full-scale .

    If appropriate, the Offeror shall describe any other efforts that will be making use of this demonstrator/prototype and clearly denote when it will be available to the 3DELRR Program.

SOW (Para 1.9.19) Requirement Analyses

TRD Rev E to be more affordable than TRD Rev D

As part of their Value Engineering efforts, the Contractor shall conduct requirements analyses with respect to the ability of their radar system design to meet the requirements of TRD Revision D + Notice 1, identify any TRD Revision D + Notice 1 requirements that their radar system design does not meet, discuss the pros and cons for not meeting those requirements with respect to the CRC and 3DELRR missions and functions described above, identify the top ten system capability or requirement cost drivers, and develop cost versus performance curves based on those top ten cost drivers.

However, the Government does believe that range, mobility, surveillance volume, false alarms, and accuracy will be major cost drivers in the radar design, so the Contractor shall also include the drivers and range of values listed below if they are not in their top ten list. Note that these drivers are listed in priority order of what the USAF is most willing to trade in order to save cost.

- **Mobility (Type III, Type IV, and Type V)**
- **Accuracy (Elevation Accuracy: EA_{min} to EA_{max}; Azimuth Accuracy: AA_{min} to AA_{max}; Range Accuracy: RA_{min} to RA_{max}; – see Classified Appendix A for details)**
- **False Alarms (ABT Associated Measurement Report (AMR) per scan period: 5 – 25; ABT AMR per hour: 1 – 4; TBM track reports per hour: 1 – 4)**
- **Surveillance Volume (Maximum Elevation: 20° – 60°; Maximum Height: 50 – 100 kft; Maximum Range: MR_{min} to MR_{max} – see Classified Appendix A for details; 360 degrees in azimuth in all cases)**
- **Range (Maximum Range: MR_{min} to MR_{max} – see Classified Appendix A for details)**

Industry Consensus on Top Cost Drivers & Ranges?

RFP Rev G

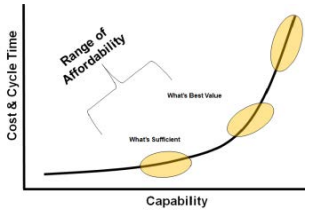
Organization/Number of Copies/Page Limits

Table 2.6-1 Proposal Organization

Volume	Volume Title	Paper Copies	Electronic Copies	Page Limit	Due Date (NLT)
Note: Asterisk (*) items not included in page count					
I	**Executive Summary**	5	2	10	RFP Release +30 calendar days
II	**Technical**	5	2	60	RFP Release +30 calendar days
	Table of Contents, Cover Pages and those listed in Paragraph 2.7*			No Page Limit	
	Subfactor 1. Architecture and Design				
	Subfactor 2. Technical Maturity				
	Subfactor 3. AESA Prototype				
IIA	**Classified Responses**	10	0	25	RFP Release +30 calendar days
	Table of Contents, Cover Pages and those listed in Paragraph 2.7*			No Page Limit	
	All classified responses				
III	Contract Documentation	3	2	No Page Limit	RFP Release +30 calendar days
	Contract Documentation Model Contract (Sections A-K) and Attachments to the Model Contract (see paragraph 6.3.4)*				

Path to Affordability

- **Key element of Pre-EMD Period is for the Contractors (≤ 3) to conduct a requirements analysis with respect to their radar designs against TRD Revision D + Notice 1**
  - **Identify top 10 cost drivers**
  - **Include Gov't top five drivers**
  - **Develop cost versus performance curves for drivers**
- **Output of these analyses will inform Government refinement of the requirements and be reflected in TRD Revision E**
  - **Looking for the "knee-in-the-curve" for overall system cost versus performance trade-offs**



  - **Will form the baseline for system requirements, system functional, and preliminary design reviews within Pre-EMD Period as well as the EMD / LRIP source selection**

Contractor analyses to support requirements refinement → Government to refine requirements and update TRD → Conduct System Requirements and System Functional Reviews → Conduct Preliminary Design Review

Contract Structure

Source Selection	Contract	Purpose	Type	PoP	Major Deliverables
Full and Open (LPTA)	TD Phase: Pre-EMD (Ktr A) CLIN 0001	• PDR • Demo C	FFP	15 mos (4QFY12 to 1QFY14)	• LCCE • Capability vs Cost Trade Analysis • Preliminary Design • PDR Reports • Demo C Test Reports
	TD Phase: Pre-EMD (Ktr B) CLIN 0001	• PDR • Demo C	FFP		
	TD Phase: Pre-EMD (Ktr C) CLIN 0001	• PDR • Demo C	FFP		
	TD Phase: Pre-EMD (Each Ktr) CLIN 0003	• DEF Analysis	FFP	6 mos	• Feasibility Study

Budget/Funding Information
Anticipated 3DELRR Funding

3DELRR Available Contract Funding (TY$M)			
Contract Period	FY12	FY13	Total *
3600 (Pre-EMD)	18	90	108

•Total available contract funding is to be split amongst **≤ 3** Offerors (CLIN 0001 only).

3DELRR Available Contract Funding (TY$M)			
Contract Period	FY12	FY13	Total *
DEF Funding (Pre-EMD)	0.5	0	0.5

•Total available Defense Exportability Features (DEF) funding is to be split amongst **≤ 3** Offerors (CLIN 0003 only).

RFP Revisions – DEF Pilot Program (1)

MEMORANDUM FOR DEPUTY ASSISTANT SECRETARY OF THE AIR FORCE FOR ACQUISITION INTEGRATION

SUBJECT: Defense Exportability Features Program Selections

18 Oct 2011

Reference: USD(AT&L)/IC Memo dtd 22 September 2011

The Defense Exportability Features (DEF) Pilot Program was established in the fiscal year 2011 National Defense Authorization Act (NDAA) to develop and incorporate technology protection features into a system or subsystem during its research and development phase. By doing this, exportable versions of a system or subsystem could be sold earlier in the Production and Development phase, thereby (1) enabling capability to be available to allies and friendly countries more rapidly and (2) lowering the unit cost of DoD procurements.

Reference memorandum provided a list of Major Defense Acquisition Programs (MDAPs) identified as potential DEF candidates. In accordance with Section 243 of the of FY 2011 NDAA, the Three Dimensional Expeditionary Long Range Radar (3DELRR) Program is selected as a "designated system" in the DEF pilot program to identify, develop and incorporate technology protection for the purpose of enhancing or enabling the 3DELRR's exportability.

Accordingly, please ensure appropriate DEF provisions are included in Acquisition Documents (Acquisition Strategy, Program Protection Plan, etc.) for Milestone B. The upcoming Request For Proposal should include the requirement for the contractor to perform and deliver a DEF feasibility analysis as part of the contractor's Program Protection Implementation Plan (PPIP).

My action officer for DEF is Mr. Hank Themak, OUSD(ATL)/IC at (703) 697-9740, Hank.Themak@osd.mil.

A. Volkman
Director, International Cooperation

RFP Revisions – DEF Pilot Program (2)

- **DEF has its own CLIN 0003 (Option)**

  Why?
  - **OUSD(AT&L) provides RDT&E funds**
  - **DEF task must be tracked and cost reported separately**

- **DEF Task and associated CDRL added to SOW**

1.9.18.5 Defense Exportability Features (DEF)

- **In accordance with the 3DELRR Program Protection Plan and in coordination with the Government, the Contractor shall recommend differential protections and/or differential capabilities needed to protect critical program information against foreign collection threats. Accordingly, the Contractor shall investigate the necessity and feasibility (from cost, engineering, and exportability perspectives) of the design and development of differential capability and enhanced protection of exportable versions of the system or subsystem for exports to our closest allies and friendly nations not among our closest allies. The Contractor shall provide the Government with the analytical basis for their recommendations. After final Government review and approval of these recommendations, the Contractor shall develop statements of work sufficient to design, develop, and test the approved differential protections and/or capabilities along with an estimate of the associated differential cost to design, test, and build the export version(s). *(Refer to Exhibit A, CDRL A117)***

RFP Revisions – DEF Pilot Program (3)

- **Section 243, NDAA for FY11 (Public Law 111-383)**

(a) PILOT PROGRAM.—The Secretary of Defense shall carry out a pilot program to develop and incorporate technology protection features in a designated system during the research and development phase of such system.

(b) ANNUAL REPORTS.—Not later than December 31 of each year in which the Secretary carries out the pilot program established under this section, the Secretary shall submit to the congressional defense committees a report on the pilot program, including a list of each designated system included in the program.

(c) TERMINATION.—The pilot program established under this section shall terminate on October 1, 2015.

(d) DEFINITIONS.—In this section:

(1) The term ''designated system'' means any system (including a major system, as defined in section 2302(5) of title 10, United States Code) that the Under Secretary of Defense for Acquisition, Technology, and Logistics designates as being included in the pilot program established under this section.

(2) The term ''technology protection features'' means the technical modifications necessary to protect critical program information, including anti-tamper technologies and other systems engineering activities intended to prevent or delay exploitation of critical technologies in a designated system.

RFP Revisions – DEF Pilot Program (4)

- **Section 252, NDAA for FY11 (Public Law 111-383)**

CONTRACTOR COST-SHARING IN PILOT PROGRAM TO INCLUDE TECHNOLOGY PROTECTION FEATURES DURING RESEARCH AND DEVELOPMENT OF CERTAIN DEFENSE SYSTEMS.

Section 243 of the Ike Skelton National Defense Authorization Act for Fiscal Year 2011 (Public Law 111–383; 124 Stat. 4178; 10 U.S.C. 2358 note) is amended—

(1) by redesignating subsections (b), (c), and (d) as subsections (c), (d), and (e), respectively; and

(2) by inserting after subsection (a) the following new subsection (b):

''(b) COST-SHARING.—Any contract for the design or development of a system resulting from activities under subsection (a) for the purpose of enhancing or enabling the exportability of the system either—

''(1) for the development of program protection strategies for the system; or

''(2) for the design and incorporation of exportability features into the system,

shall include a cost-sharing provision that requires the contractor to bear at least one-half of the cost of such activities.''.

Reduced Cost to Government / Increased Sales for Contractor

Summary

- The 3DELRR program appreciates Industry's involvement over the past 2 years as we finalize our acquisition strategy
- Look forward to continued collaboration and partnership
- Success is based on clear and mutual understanding of solicitation requirements

Goal is to Release Final RFP early May 2012

Questions from Industry

Frequency of Meeting Support

Question:

- What is the frequency of and attendance of TIMs?

Response:

- The Government intends to minimize the frequency of IPT/WG support
- PMRs are quarterly (SOW 1.1.1.4)
- IPT meetings are quarterly (SOW 1.2)
  - Done in conjunction with PMRs
  - Specialized Working Groups done in conjunction with IPT meetings

MS-B Documentation Support

Question:

- "The Contractor shall assist the Govt in the development of the CARD at MS-B". Is this a deliverable?

Response:

- The Government may use information provided from the Contractors to supplement certain MS-B documents
  - Existing CDRLs
  - Quarterly IPT meetings
  - Technical Reviews
- There are no MS-B (e.g. CARD) documents required as CDRLs

Timing of CDRLs

Question:

- Several questions from Industry dealing with the timing of specific CDRLs
  - Inappropriate delivery times
  - Inconsistent delivery times
  - Specific content of CDRLs

Response:

- Not going to address each question today
  - Only exception is Reliability and Maintainability Program Plan
  - Government will review and address each comment and post responses

Reliability & Maintainability Program Plan

Question:

- **Clarify the CDRL A092 applicability**

Response:

- **CDRL A092 will be updated to reflect that R&M Program Plan is no longer delivered as part of the proposal**
- **CDRL A092 will be required to be delivered seven (7) days prior to Post Award Conference (PAC) and will be a topic of discussion at the PAC**
  - **CDRL A092 defines how the Contractor will meet the reliability requirements of the program and adheres to the principles and requirements of ANSI/GEIA STD-0009**
  - **It does not depend on the specific requirement values**

Defense Exportability Features

Question:

- Is DEF Cost Sharing or FFP?

Response:

- FFP CLIN 0003
- Certification added to ESC H-019 provision
  - KTR's invoice for payment shall certify compliance that KTR bore at least 50% of cost of DEF Feasibility Study

Total Life Cycle Cost

Question:

- **Will the Government provide any Ground Rules and Assumptions about O&S cost?**

Response:

- **The Government will provide the ground rules and assumptions for the LCCEs**

Single Load Transportability

Question:

- Clarify the Section L and M regarding Single Load Transportability

Response:

- The TRD is not a measuring stick for this source selection
  - Evaluation factors and criteria are not tied to specific TRD requirements
- Section L and Section M evaluation factors and criteria are not meant to be all inclusive
  - Focusing on those transportation means by which 3DELRR is to be transported in a single load

AESA Prototype

Question:

- **What type of proof is required to demonstrate "program accessibility" to the AESA prototype?**

Response:

- **The Government expects Offerors to describe any other efforts that will be making use of this demonstrator/prototype and clearly denote when it will be available to the 3DELRR Program**

Thank You for Attending!