



THAAD 07T-1479.01

# THAAD Program Overview

– MDA Small Business Day Conference –



**19 September 2007**

**Presented by:**  
**Carlos Kingston, Deputy PM**  
**THAAD Project Office**



# Purpose



07T-1187.02a



FTT-07 Apr 5, 2007

*Review Terminal High  
Altitude Area Defense  
(THAAD), Update Latest  
Developments and  
Provide Information on  
Future THAAD  
Opportunities.*



# Integrated Ballistic Missile Defense System



THAAD 07T-1001.03

## Sensors



Defense Support Program



Space Tracking And Surveillance System



Sea-Based Radars



Forward-Based Radar With Adjunct Sensor



Midcourse X-Band Radar



Early Warning Radar



Airborne Laser



Kinetic Energy Interceptor



Aegis Ballistic Missile Defense / Standard Missile-3



Multiple Kill Vehicle



Ground-Based Midcourse Defense



Terminal High Altitude Area Defense



Patriot Advanced Capability-3

## Command, Control, Battle Management & Communications



NMCC USSTRATCOM USNORTHCOM USPACOM EUROM CENTCOM



# THAAD Element Description

- 4 Major Components -



THAAD 07T-1050.04

## Second Generation THAAD – World Wide Deployable . . . 21st Century THAAD

### THAAD Fire Control



- Plans and controls all engagements
- BMDS interoperability
  - JRE beyond line of sight capability
  - Link 16 architecture
  - Interfaces with BMDS C2BMC

### Interceptor



- Aimpoint designation
- High single shot Pk with WMD lethality
- Endo-exo capability

### Radar



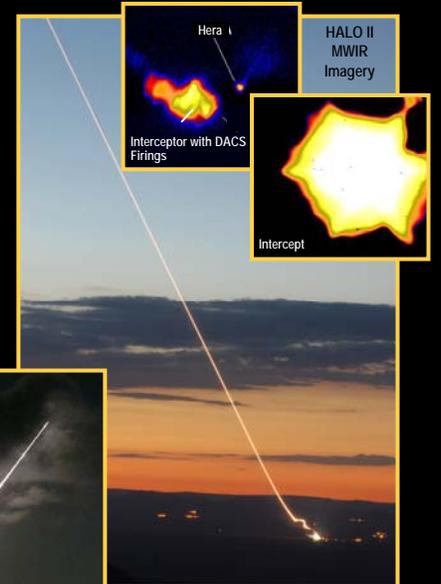
- Extensive coverage
- Sized for volume threat
- Radar updates interceptors

### Launcher



- 8 Interceptors per pallet
- Up to 9 Launchers per Fire Unit
- Rapid reload

FTT-03 Intercept of Unitary Hera Target, WSMR - July 2006



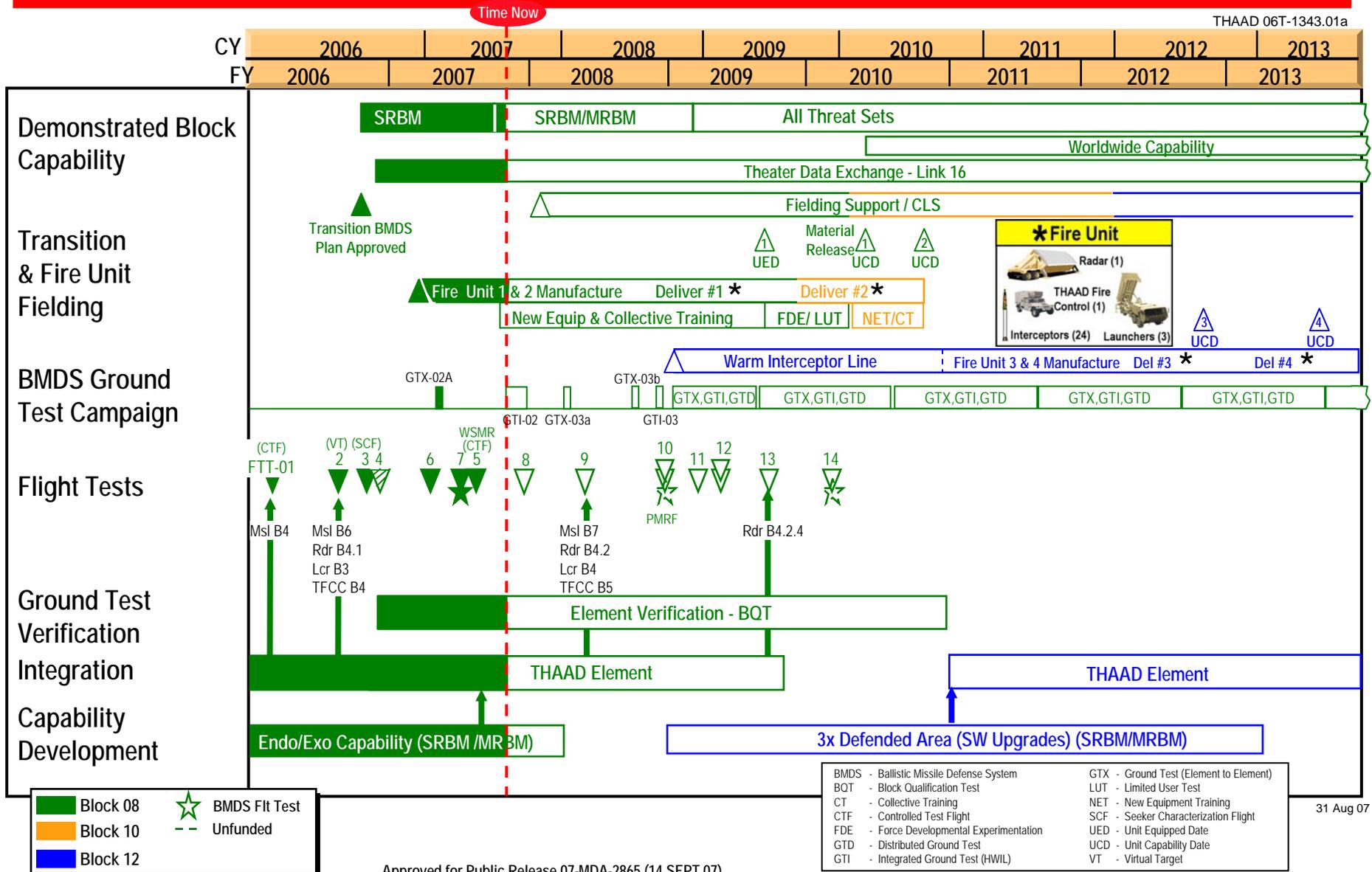
FTT-06 Intercept of Unitary Threat Representative Target, PMRF - January 2007

*Producibility, Reliability, Testability, Maintainability*



# THAAD Program Schedule

— Baseline —

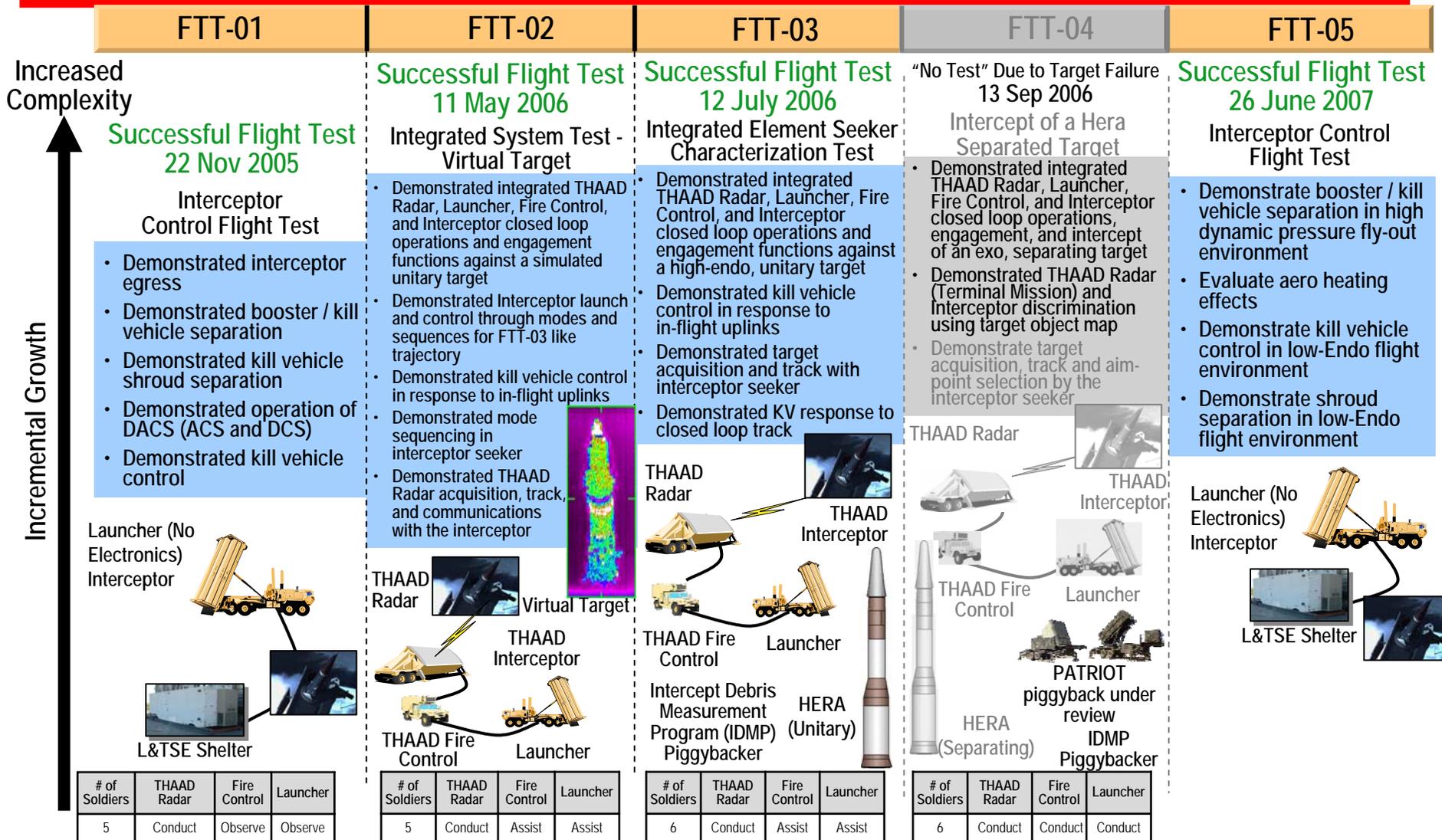




# WSMR Flight Test Incremental Growth Strategy



07T-1029.01





# PMRF Flight Test Incremental Growth Strategy



07T-1029.02

FTT-06	FTT-07	FTT-08	FTT-09	FTT-10																																								
<p><b>Successful Flight Test</b> 26 January 2007 High Endo Intercept of Unitary Target</p> <ul style="list-style-type: none"> <li>Demonstrate integrated Radar, Launcher, TFCC, and Interceptor closed loop operations, engagement functions, and intercept of a <u>high-endo, unitary</u> target</li> <li>Demonstrate Interceptor endgame capability in <u>med aspect angle</u> intercept</li> <li>Demonstrate acquisition, track and aim-point selection by the missile seeker against a unitary target</li> </ul>	<p>★ BMD System Event <b>Successful Flight Test</b> 5 April 2007 Mid Endo Intercept of Unitary Target</p> <ul style="list-style-type: none"> <li>Demonstrate integrated Radar, Launcher, TFCC, and Interceptor closed loop operations, engagement functions, and intercept of a <u>mid-endo</u>, unitary target</li> <li>Demonstrate Interceptor endgame capability in <u>low aspect angle</u> intercept</li> <li>Demonstrate acquisition, track and aim-point selection by the missile seeker against a unitary target</li> </ul>	<p>Exo Intercept of Unitary Target</p> <ul style="list-style-type: none"> <li>Demonstrate integrated Radar, Launcher, TFCC, and Interceptor closed loop operations, engagement functions, and <u>exo-atmospheric</u> intercept of a unitary target</li> <li>Demonstrate Interceptor endgame capability</li> <li>Hot Pre-Launch</li> </ul>	<p>Low Endo Intercept of Simple Separating Target</p> <ul style="list-style-type: none"> <li>Demonstrate low endo-atmospheric intercept of a spin-stabilized non-reoriented separating target</li> <li>Demonstrate Radar, Launcher, TFCC, and Interceptor software update</li> </ul>	<p>★ BMD System Event Exo Intercept of Separating Target</p> <ul style="list-style-type: none"> <li>Demonstrate exo-atmospheric intercept against separating target</li> <li>Cold Pre-Launch</li> <li>Salvo THAAD Interceptors</li> <li>Unconstrained engagement</li> <li>Flight test is designated a DT/OT mission</li> </ul>																																								
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Underline - Changes from previous flight test

Approved for Public Release 07-MDA-2847 (31 Aug 07)

Approved for Public Release  
07-MDA-2435 (01 Apr 07)  
(Video)

FTT-07  
Video



# PMRF Flight Test Incremental Growth Strategy

07T-1029.03

FTT-11				FTT-12				FTT-13				FTT-14			
Exo Intercept of Complex Separating Target				Mid & Low Endo Intercepts of Separating Targets				Exo Intercept of Highly Complex Separating Target				★ BMD System Event Exo Intercept of Highly Complex Separating Target			
<ul style="list-style-type: none"> <li>Demonstrate exo-atmospheric intercept of a lofted spin-stabilized reoriented separating target</li> </ul>				<ul style="list-style-type: none"> <li>Demonstrate endo-atmospheric intercepts of two spin-stabilized separating targets</li> <li>Dual targets / dual interceptors</li> <li>Demonstrate Sim-Over-Live engagement operations</li> <li>Satisfy Hot STS Block qualification test requirements</li> </ul>				<ul style="list-style-type: none"> <li>Demonstrate exo-atmospheric intercept of a MRBM separating target capable of associated objects</li> </ul>				<ul style="list-style-type: none"> <li>Demonstrate exo-atmospheric intercept of a MRBM separating target capable of associated objects</li> <li>Satisfy Cold STS Block qualification test requirements</li> </ul>			
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# Major Contracting Activity

THAAD 00T-1108.05h



UNCLASSIFIED

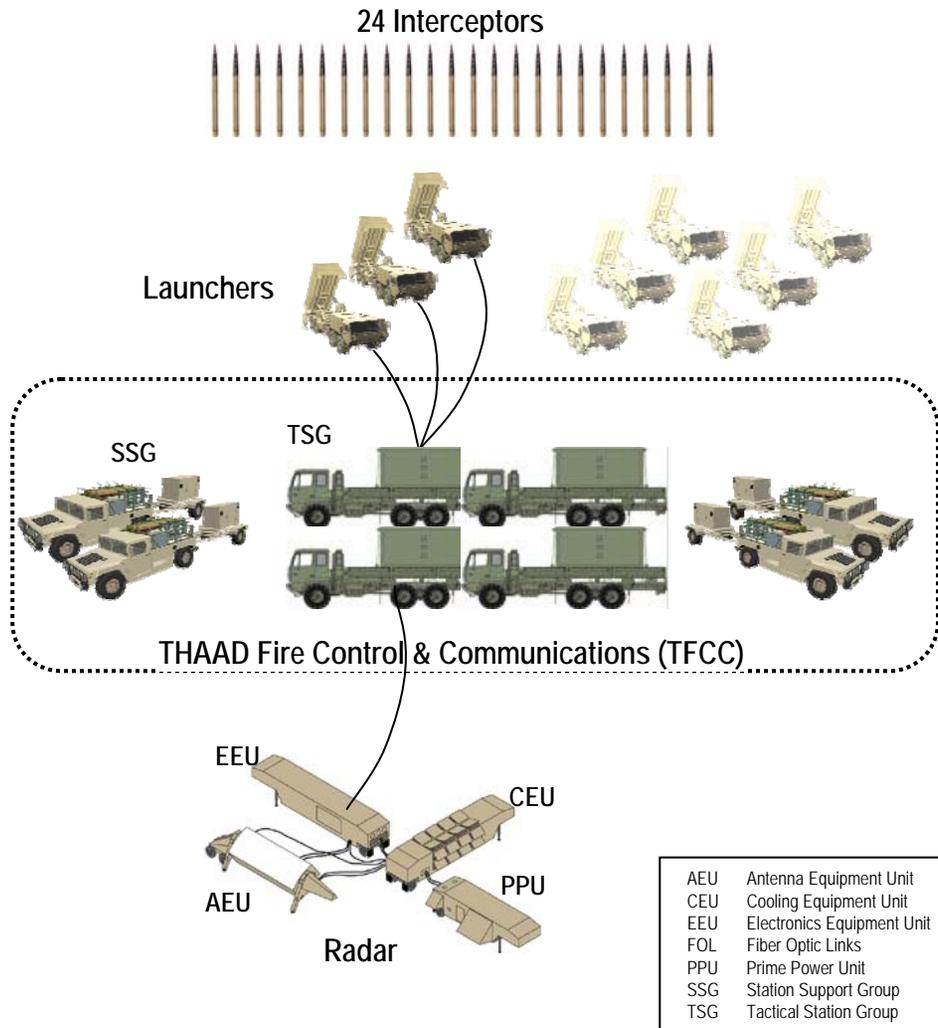
★ DCMA offices



# Fire Unit Manufacturing

- What is to be Delivered -

THAAD 07T-1054.05a



- 3 Launchers
- 24 Interceptors
- 1 Radar Set
- 1 TFCC
  - 2 Tactical Station Groups
  - 2 Station Support Groups
- Battery Support Center
- Interim Contractor Support System (Depot Fwd)
- ASIOE/CSE
- 107 Military Personnel

Fire Unit #1



# Current THAAD Contracts



THAAD 07T-1109.03b

Contract #	Name	Contract Type	\$ Value	Period of Performance
DASG60-00-C-0072	THAAD Development Program	CPAF/CPFF	\$5.2B	Through - 3 Sep 09
HQ0147-07-C-0196	Fire Unit Fielding Production (Fire Units 1 & 2)	CPIF/CPAF	\$619.1M	22 Dec 06 - 21 Feb 11
HQ0006-03-C-0047 P00071	Fire Unit Radar	CPAF/CPIF	\$212M	Award 1QFY07 12 Feb 07 - 11 Jun 10



# Future THAAD Contracts



THAAD 06T-1542.02a

- Projected contract awards for FY08:
  - THAAD Field Support Contract (TFSC)  
(formerly Contractor Logistics Support)
    - Sole Source: Lockheed Martin Space Systems Company  
Sunnyvale, CA
  - Consolidated – Contractor Logistics Support (C-CLS)
    - Sole Source: Raytheon  
Woburn, MA



# THAAD Contracts



THAAD 06T-1542.03a

## Contacts for THAAD Small Business Opportunities:

### **THAAD Project Office**

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### **Lockheed Martin Space Systems Company**

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### **Missile Defense Agency**

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