

# **National Missile Defense (NMD) Joint Program Office (JPO)**



**2 July 97**

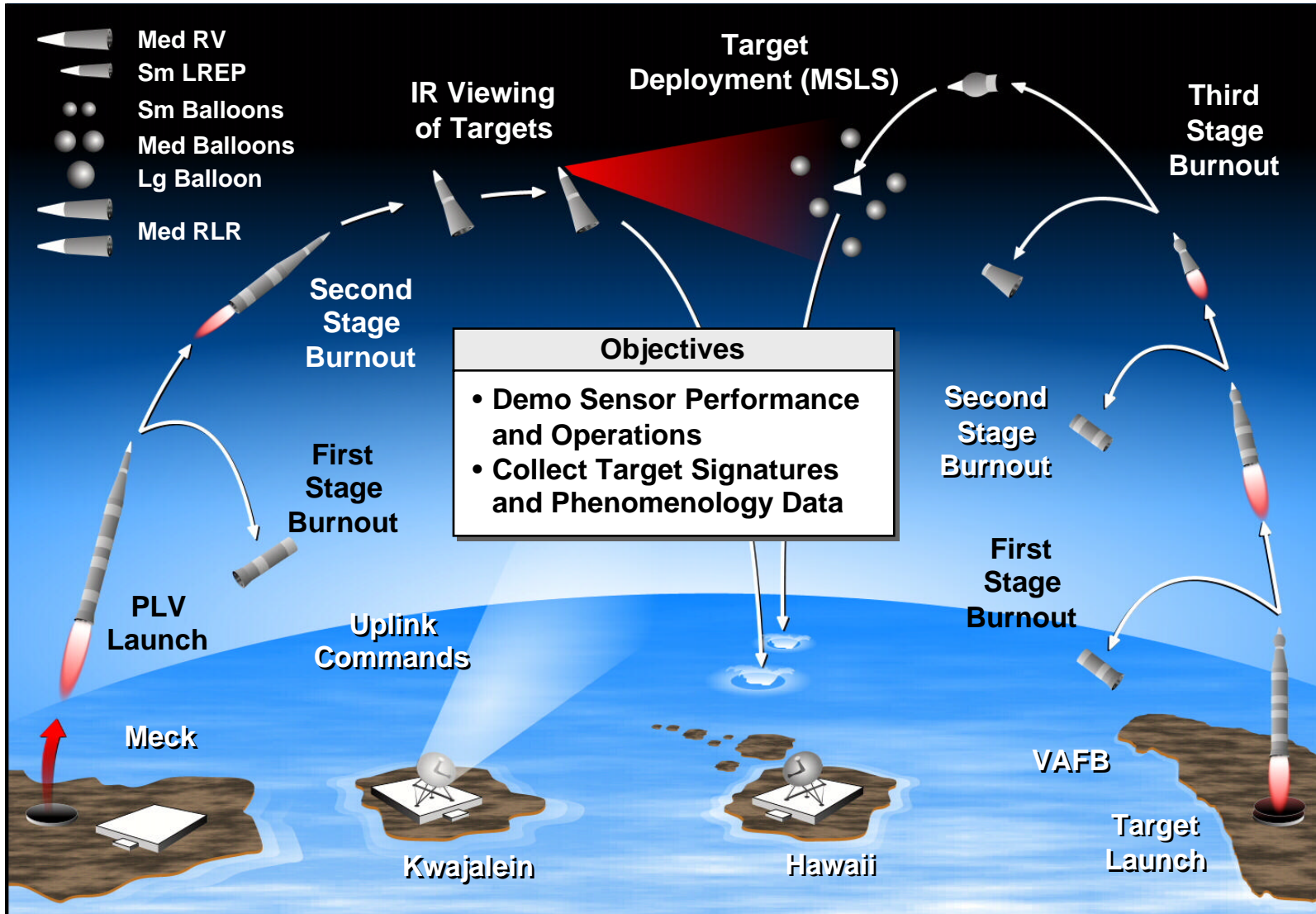
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## **Integrated Flight Test (IFT) 1A Overview (24 June 1997)**

Integrated Flight Test (IFT) 1A is the first integrated flight test in the National Missile Defense (NMD) Test Program. The primary purpose of the flight test was to allow an Exoatmospheric Kill Vehicle (EKV) sensor to view and collect data on a representative threat target suite. The target suite was deployed from a Multi-Service Launch System (MSLS) that was launched from Vandenberg Air Force Base (VAFB), CA on a trajectory to a broad ocean area approximately 300 miles north of the United States Army Kwajalein Atoll (USAKA), Marshall Islands. The target suite consisted of 1 Reentry Vehicle (RV), and 8 RV replicas and balloons. The EKV sensor was launched from Meck Island on a Payload Launch Vehicle (PLV) on a trajectory that permitted it to view a preplanned target scene. Real-time target telemetry data was transmitted by the EKV to ground collection sites for post-mission analysis.



# INTEGRATED FLIGHT TEST (IFT) 1A OVERVIEW (24 JUNE 1997)



## **IFT-1A Objectives**

The IFT-1A overall mission objectives were to demonstrate Exoatmospheric Kill Vehicle (EKV) sensor performance, gather signature and phenomenology data on the target objects, and provide risk reduction for future intercept tests.



# IFT-1A OBJECTIVES

## *EXOATMOSPHERIC KILL VEHICLE (EKV) SENSOR FLIGHT*

- **Demonstrate EKV Sensor Performance**
- **Collect Target Signature and Discrimination Data**
- **Verify Models and Simulations for the EKV Sensor**
- **Demonstrate Surveillance Coverage**
- **Assess Functional Interoperability of Test Interfaces**
- **Verify Data Collection and Timelines from Element Representations**
- **Demonstrate Initial Capability to Integrate/Test Interfaces**

## **IFT-1A Results**

Preliminary information indicates that all systems and test assets participating in IFT-1A appear to have performed as planned. The test data from the Exoatmospheric Kill Vehicle (EKV) sensor is undergoing post-mission detailed analysis. Additional information on sensor performance should be available after the 45-day review in August.



# IFT-1A RESULTS



- **Based on IFT-1A 48-Hour Report**
- **All IFT-1A Element Participants and Test Assets Appear to have Performed Nominally**
- **Indications are that Good Telemetry and Data Collection was Accomplished to Meet Mission Objectives**
- **Current Assessment is that All Aspects of the IFT-1A Mission Were Highly Successful**
- **Test Data is Undergoing Detailed Analysis**

**Preliminary Assessment: *SOLID SUCCESS***

## **Integrated Flight Test Program**

IFT-1A is the first flight test in the Integrated Flight Test Program that leads to an integrated system test in 1999 that will demonstrate an initial National Missile Defense (NMD) system capability. IFT-2 will have similar objectives to IFT-1A - demonstrate Exoatmospheric Kill Vehicle (EKV) sensor performance, collect target signatures, and provide for risk reduction for future tests. IFT-3 and IFT-4 will be actual intercept flights with the purpose of demonstrating the EKV intercept of threat representative targets and the integration of maturing NMD elements. IFT-5 will be an intercept flight that will demonstrate overall NMD system interoperability using the actual NMD elements.





# INTEGRATED FLIGHT TEST PROGRAM (U)



## IFT-1A & 2



### Objectives

- Demonstrate Sensor Performance
- Establish/Assess Functional Interoperability of Test Infrastructure

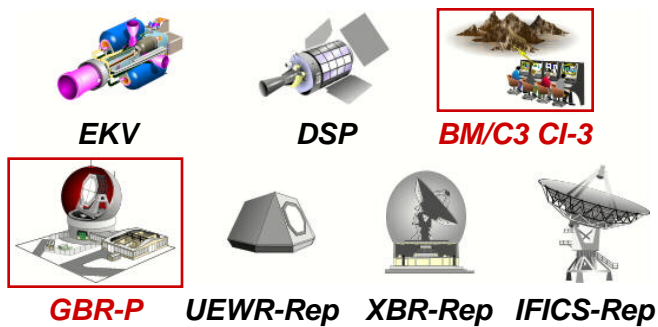
## IFT-3



### Objectives

- Demonstrate EKV Intercept
- Demonstrate Early System Integrated Performance
- BM/C3 Shadow Mode

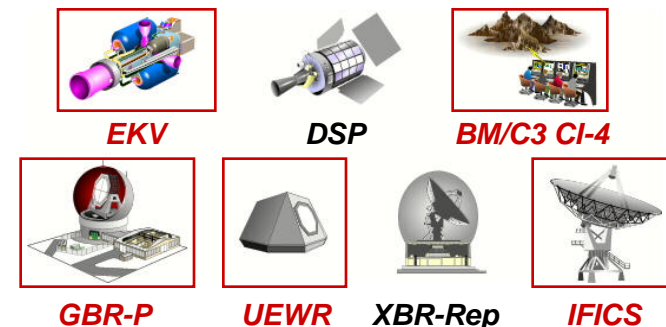
## IFT-4



### Objectives

- Demonstrate EKV Intercept
- Demonstrate Real-Time Element Interoperability
- GBR-P Shadow

## IFT-5



### Objectives

- First Integrated System Test
- Demonstrate NMD System Interoperability
- Test Articles EKV, GBR-P, BM/C3, IFICS, UEWR

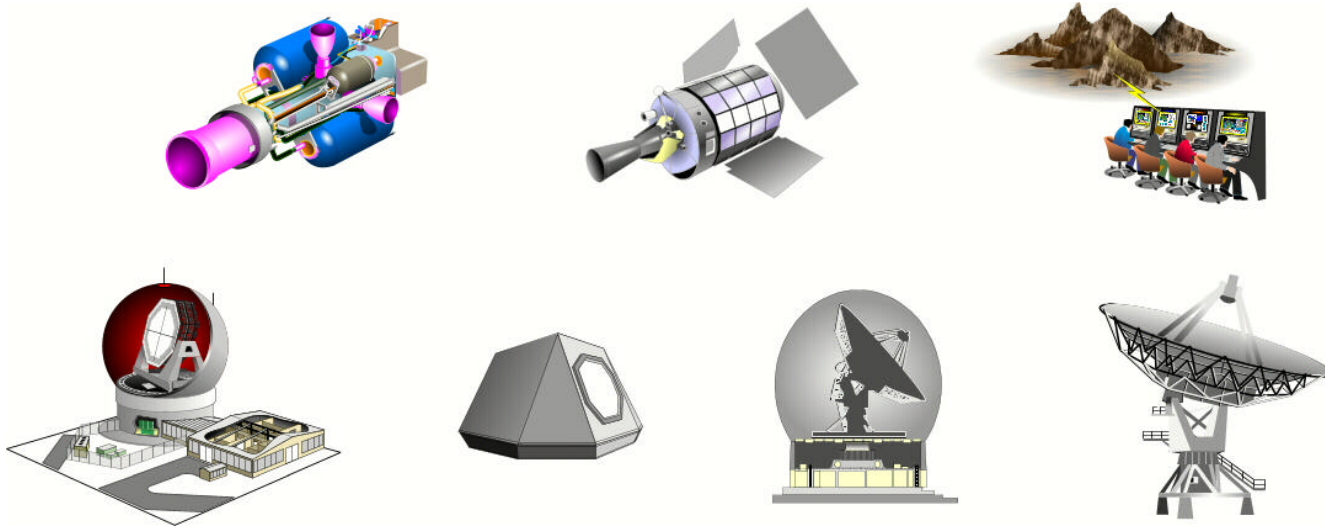
## **Summary**

The Integrated Flight Test program is successfully underway. It will play a critical role in providing the system information needed for an National Missile Defense (NMD) deployment decision in 2000. While the “3+3” NMD Program schedule and technical hurdles are challenging, the recent stand-up of the Joint Program Office (JPO), the initiation of the Lead System Integrator (LSI) procurement activity, and the revalidation of the NMD Program by the Quadrennial Defense Review (QDR) provide the opportunity for success.



# SUMMARY

## Integrated Flight Test Program Underway



### “3+3” Program

High Technical and Schedule Risk...

But Structured and Funded for Greatest Opportunity

to Achieve Success