Operations Status Briefing

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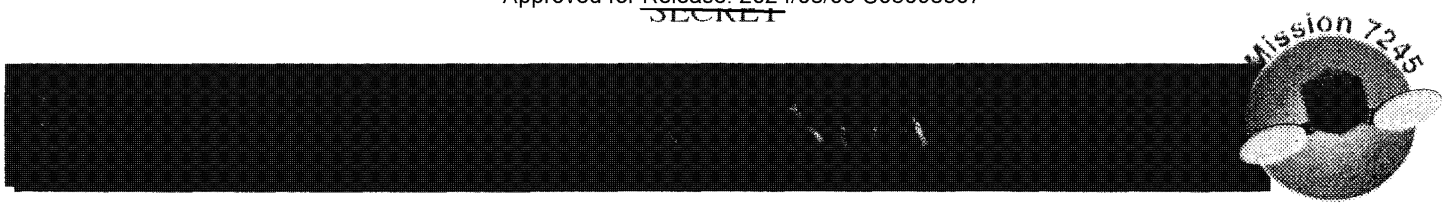

- History & Background

- Experimental Objectives

- Current Operations

- Operations Transition

- Conclusion

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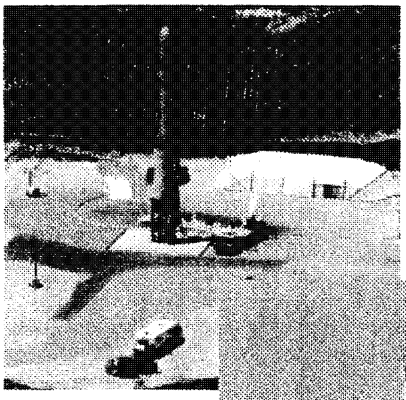
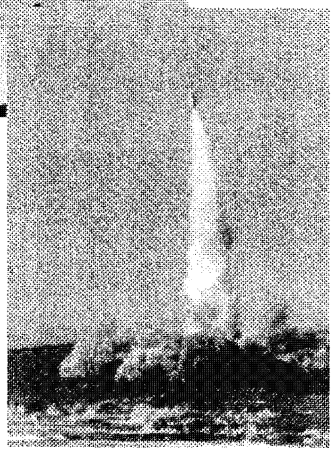
Background





- DARPA funded/NRO executed
- Launched 13 Mar 94 on first Taurus launch
- Experimental Phase Started 1 Jun 94

Objectives:

- Address LEO SIGINT collection
- Show Tactical utility of a DEDICATED overhead SIGINT system
  - Asset dedicated to a single crisis region commander
  - Streamlined tasking
  - Direct downlink from satellite to user

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[redacted] Mission 7245

Parameter	NSA Minimum*	7245 Performance	Army Minimum
RF Range	120 - 2000 MHz	100 - 850 MHz	20 - 2000MHz
Target Signals			
Ant Polarization			
Throughput			
Geo Accuracy			
RF Accuracy	10 - 100 KHz	1- 10 KHz	± 250KHz
Inclination	60 - 70 deg	105 deg	
Spin Axis	North - South	Various (optimized)	
Mission Duration	3 years	3 year goal	

*Aug 87 NSA letter describing COMINT Mapping System minimum requirements:

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Mission 7245

Technology	Objective	Performance
TI TMS320C30 CPU 12 MIP	High Speed DSP Reprogrammable by EEPROM	Extremely Capable Fully Reprogrammed OBP Software (1st Complete Reload of P/L S/W)
Payload Algorithms	Co-channel Interference Determination	New Efficient Algorithm Allows OBP
	Auto Thresholding	Dramatically Simplifies P/L Commands
	Phase Reconstruction on the fly	Streamlined Algorithm Allows OBP
Mini GPS Receiver	OBP without Ground Ephemeris	Demonstrated Improved Position Accuracy

"Demonstrated Tremendous Flexibility; Complete Reload / Update of On-Board Processor"
- **Corrected Processing Problems**
- **Updated Recognizer for Different Signal Set**

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Tactical Utility of Dedicated Asset

Objective	Capability/Performance
Tactically Controlled Asset	Corp Directly Controls Tasking and Collection Management
Feasibility/Utility of CMA by Tactical Commander	Tactical CMA working well, provides more focused signal collection
Streamlined Tasking w/Feedback	TEP-70 Message Series Provides Full Interface with Users "Knowing that our tasking was executed"
Onboard Geo/Ident	Performance Meets Users Needs
DDL to EPDS Vans	Direct S-Band DDL Working as Expected
Commanding from EPDS Vans	Two Vans have Capability ~80% Success Rate

Feedback is the Key: "(We) get our tasking in and get (our targets) copied"

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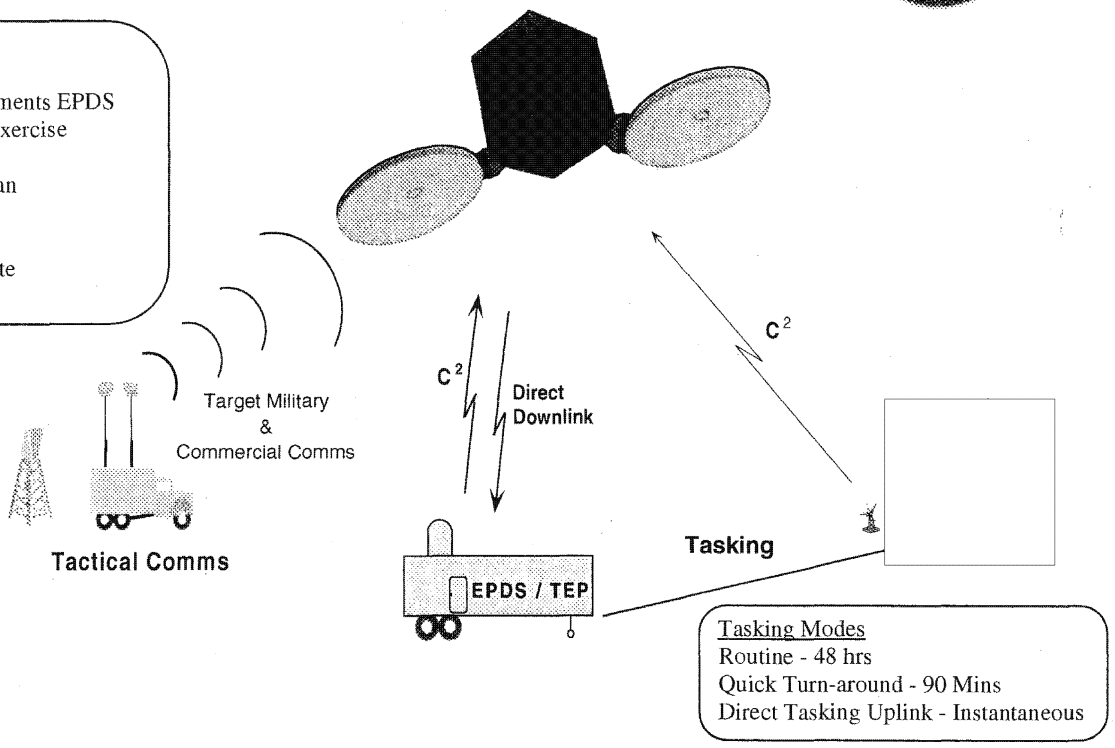
Mission 7245

Ops Concept

Rotating CMA among Corp Elements EPDS
Executing detailed Concept of Exercise
CMA last for ~ 3 months
All vans feed tasking to CMA van

Dissemination:
- Direct downlink from satellite
- AUTODIN to other vans



Tasking Modes
Routine - 48 hrs
Quick Turn-around - 90 Mins
Direct Tasking Uplink - Instantaneous

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