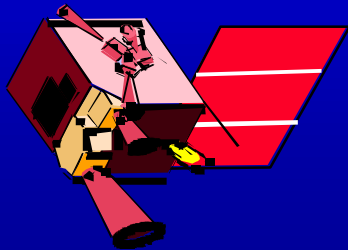
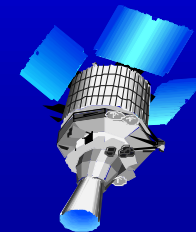


Joint National Test Facility Missile Defense Space Tools Overview



Kris Christianson
4 March 1999



MDST Mission

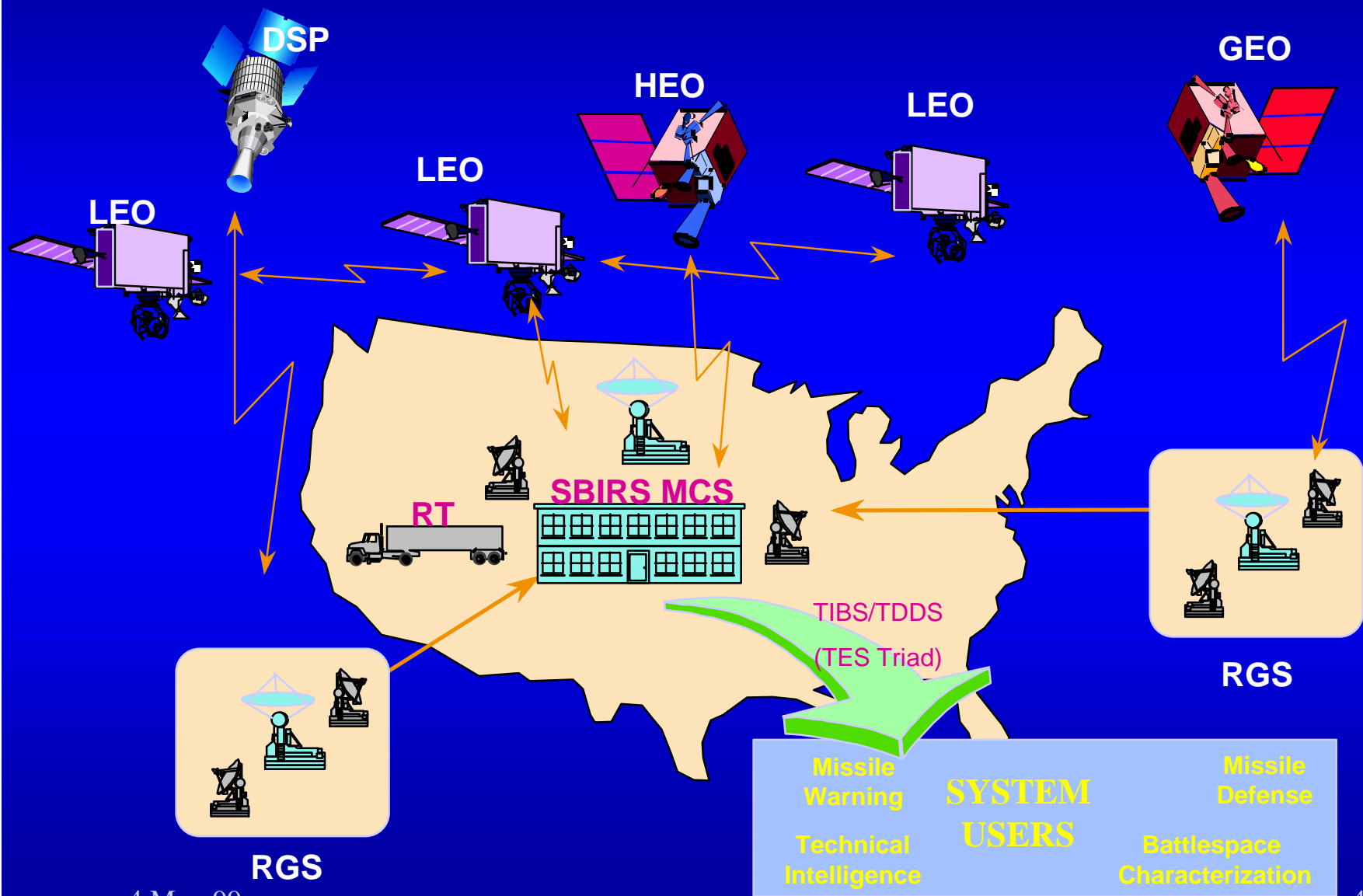
Provide direct simulation support, connectivity, technical support and related services for BMDO, CINC's, Services, and JCS supported exercises conducting National Missile Defense (NMD) and Theater Air and Missile Defense (TAMD) activities.

VISION

- Provide cost effective and timely exercise support (reduced cost and time to market) with current and future representations
- Promote model commonality and reuse
- Provide access to BMDO wargaming (WG2K) and exercise (MDST) activities
- Serve as a forum to address common needs
- Long Term Goal: Interoperability

“Power through Partnering”

MDST



4 Mar. 99

Why is MDST Needed

- Increased demand in exercises for a representation of the combined SBIRS system as operational dates get closer
- Portable model that generates appropriate TIBS/TDDS message traffic highly desired
- DSP and SBIRS are represented in one standalone systems/models - MDST
- PSM brought TIBS/TDDS certification and extensive experience in supporting tactical exercises
- SBIRS/WM is the SPO approved model and analytical tool for the DSP follow-on system

Success Story

- The need for a SBIRS representation in the exercise community created a window of opportunity (e.g. EFX 98)
- PSM had TIBS/TDDS certification and extensive experience in supporting tactical exercises
- SBIRS/WM was the SPO approved model and analytical tool for the DSP follow-on system
- A new modeling effort would have taken an estimated 18 to 24 months at a minimum of 10 times the cost
 - TIBS/TDDS certification is a 12 - 18 month process
- Combining both models answered current and future needs
 - Provided capability in less than 3 months
 - Provided an infrastructure on which SMC can add additional or enhanced space based models (e.g., SBIRSim)

Lessons Learned

- Cooperation/ willing to change
- Top down support, not top down push
- Need one final authority
- Share resources easily/ trust
- Domain experts
- Eliminate any product unique items
- Sell the vision, obtain support/ champions

JNTF PLA Business Goals

Improved Efficiency and Productivity



What will PLA bring to DoD

- The goal of DoD working relationships are to facilitate interoperability, to transfer technical information, and to minimize duplication between simulations by means of:
 - cooperation in the development of common technical approaches,
 - a mechanism to synchronize development and exercise schedules,
 - standard integration and interoperable products, and
 - promotion of the use and value of space and related assets to the warfighting community

ACRONYMS

- **ALERT - Attack & Launch Early Reporting to Theater**
- **ALSP - Aggregate Level Simulation Protocol**
- **BMDO - Ballistic Missile Defense Org.**
- **CINC's - Commander in Chiefs**
- **DSP - Defense Support Program**
- **EFX -Expeditionary Force Experiment**
- **HLA - High Level Architecture**
- **TDDS - TRAP Data Dissemination System**
- **MDST - Missile Defense Space Tools**
- **PSM - Portable Space Model**
- **SBIRS - Space Based Infra-Red Systems**
- **SMC - Space & Missile Center**
- **SPO - System Program Office**
- **TIBS - Tactical Information Broadcast System**
- **TRAP - Tactical Related Applications**
- **TES - Tactical Event System**