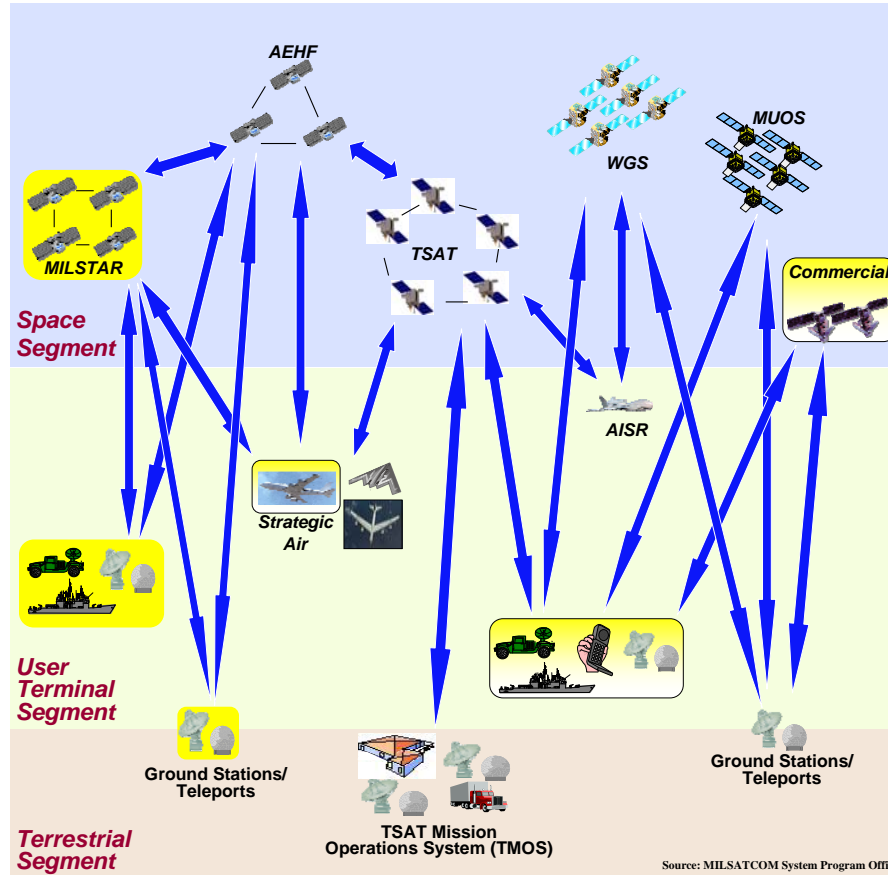


System-of-Systems Interface Synchronization in Military Satellite Communications



Motivation:

- Unsynchronized interfaces in systems of systems lead to
 - Cost and schedule growth during design and test
 - Operational Ineffectiveness
- Improved understanding and management of the interfaces could reduce cost and schedule issues and increase operational effectiveness

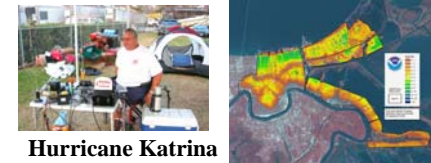


Key Research Questions

- 1) What is the cost & schedule impact of unsynchronized system-of-systems interfaces?
- 2) What change management processes are in place to synchronize system-of-systems interfaces?
- 3) Can best practices including lean principles improve system-of-systems interface synchronization and reduce cost and schedule growth?

Potential Benefits:

1. Improve disaster relief communication



2. Reduce Friendly fire incidents



3. Save money: 400% cost growth on recent satellite terminal programs mainly due to unsynchronized interfaces

Methods: Interviews / Document Review

Research Timeline

Begin Literature Search	Identify Candidate Programs	Begin Gathering Data	Complete Data Collection	Initial Analysis & Results	Finish Thesis
Dec 2006	Jan 2007	Mar 2007	Jul 2007	Sep 2007	Jan 2008



“success hinges on the ability to effectively synchronize joint force combat power within the battlespace, and respond rapidly ...”

General Joseph Ashey, *Satellite Communications for the Warfighter MILSATCOM Handbook*

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