

Real Options Analysis of Public Sector Investment

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MITRE Sponsored Research

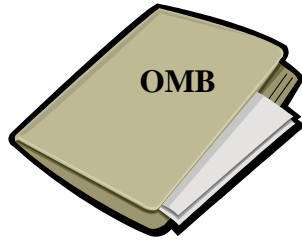


MITRE
Technology
Program

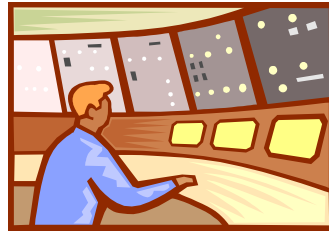
Problem

- **Can real options analysis improve government investment planning practices by incorporating flexibility into evolving, complex systems design?**

Background



Regulations



FAA Policy



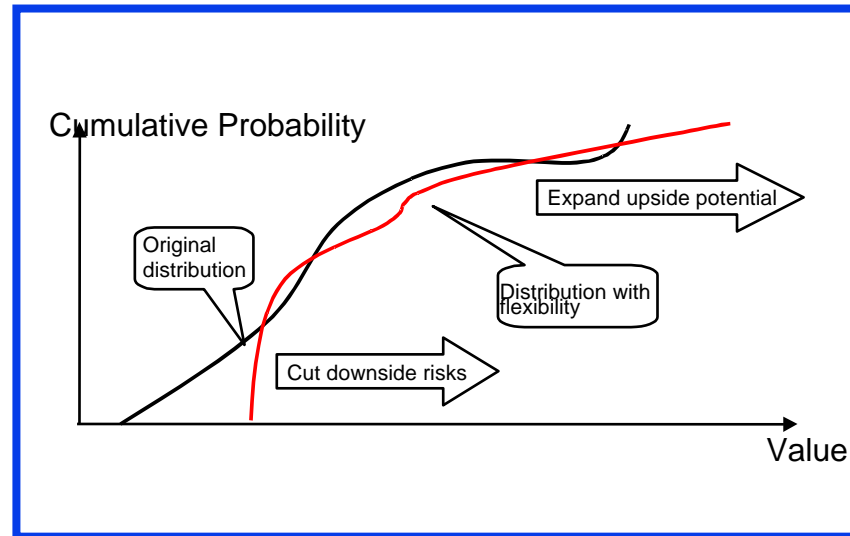
DoD Policy



Academic Theory



Commercial Practice



Adding value through flexibility



Other Policy

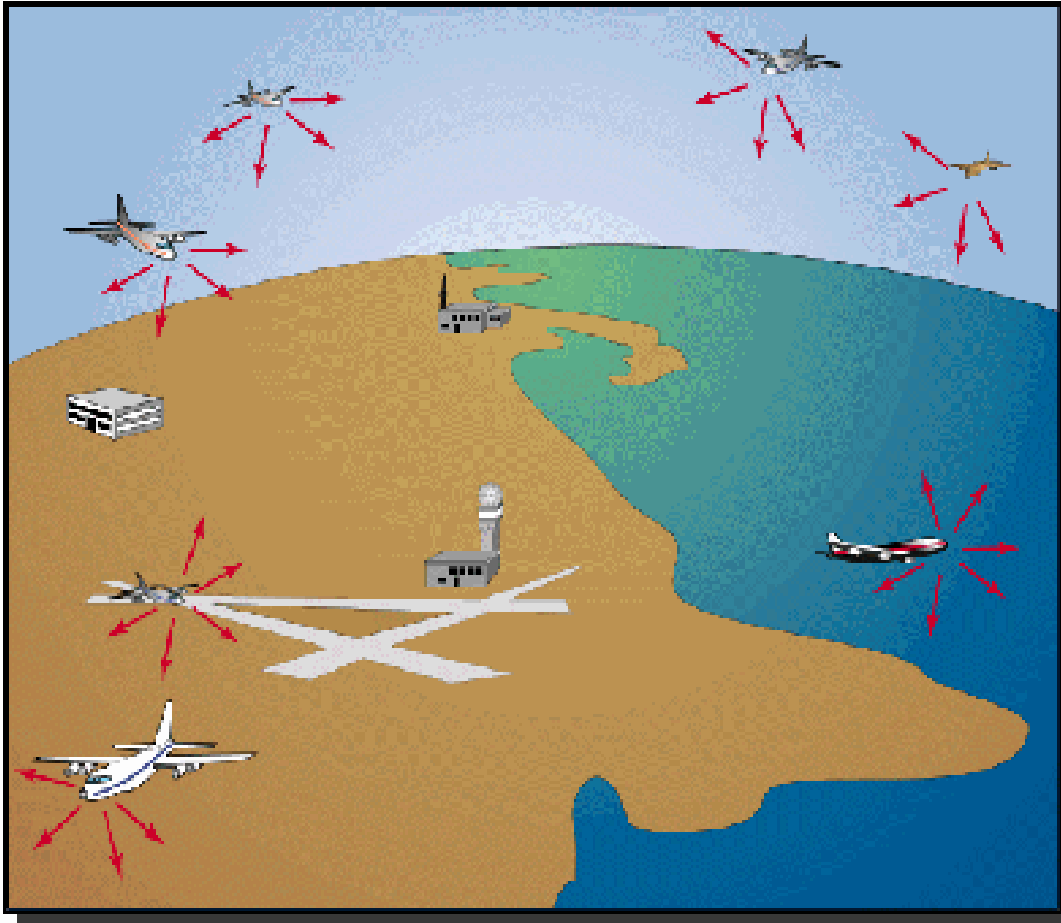
Objective

- **Develop a framework for applying real options analysis to government investment planning practices**
- **Move from deterministic system design and valuation practices to methods incorporating flexibility**
- **Improve economic analysis and decision-making throughout the government**

Activities

- **Review and document state of the practice**
 - **Academic theory**
 - **Commercial application**
- **Conduct analysis of historical systems**
- **Conduct analysis of forward-looking real options application**
- **Develop framework and incorporate into MITRE analyses**

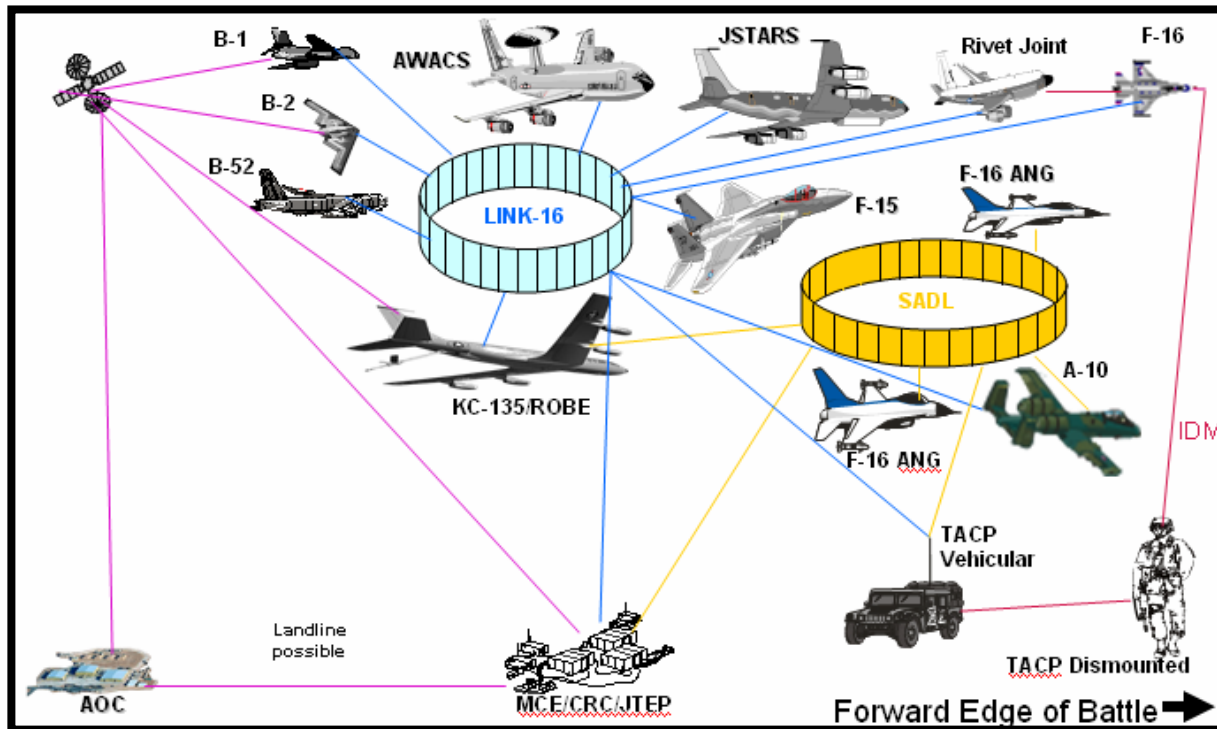
Highlight



**Applying
Real Options
Analysis to
Surveillance
Technology
Investments**

Highlight

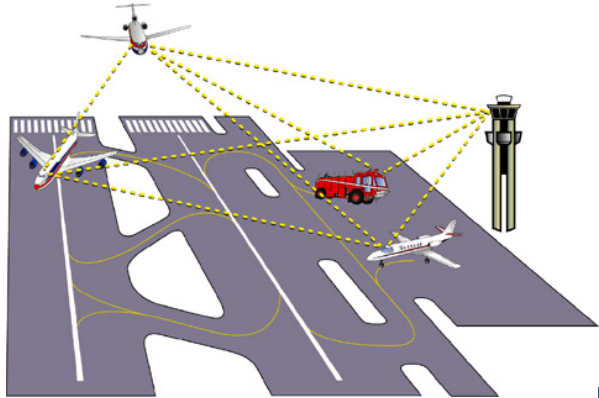
Applying real options analysis to tactical data link (TDL) interoperability challenge



Impacts

- **Government strategic planning process:**
 - DoD
 - FAA
 - IRS and other agencies
- **Investment decision-making practice**
- **Enterprise architecture planning and control process**

Future Plans



FAA CNS/ATM Investments

**JPDO Next Generation Air
Transportation System**

