

Budgeting for Evolutionary Acquisition and Spiral Development

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Problem Statement

- Can evolutionary acquisition (and specifically spiral development) be performed without changing the way funds are allocated?
- Summary:
 - Historical examples say no
 - Must distinguish between incremental and spiral
 - Concrete example shows difficulty
 - Several options for action
 - SPADE



ACTDs

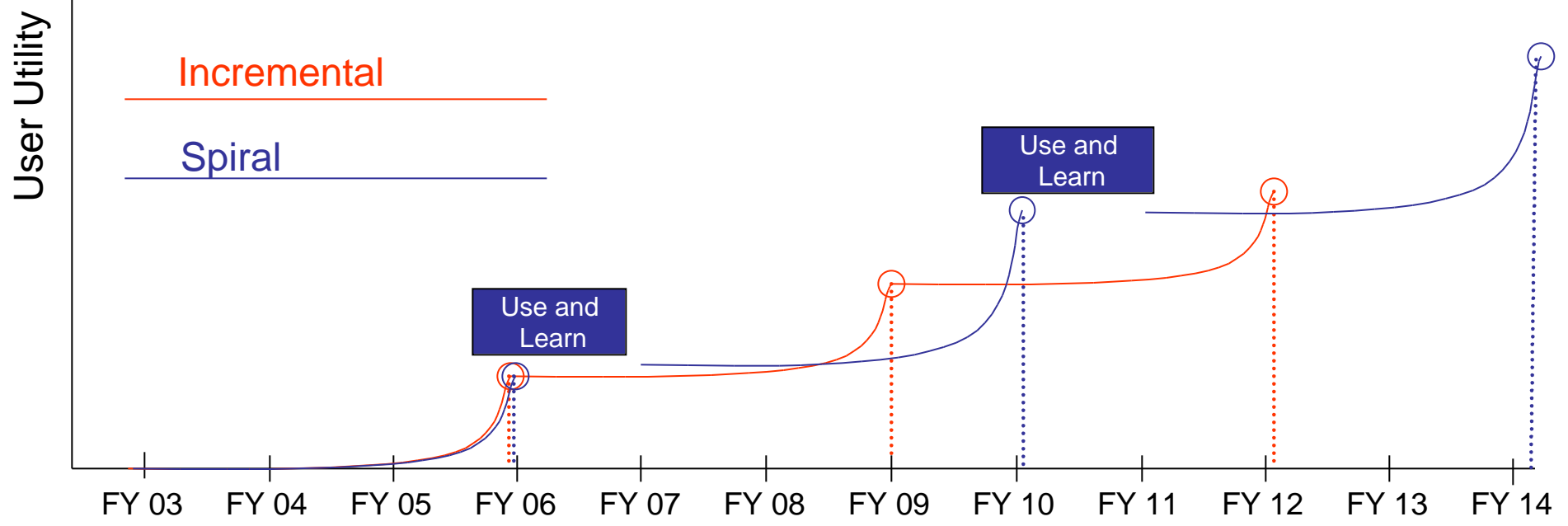
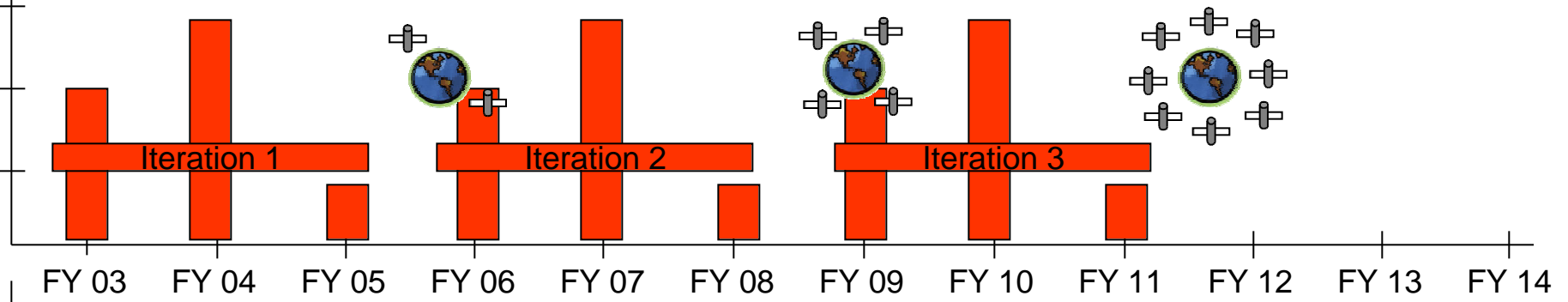
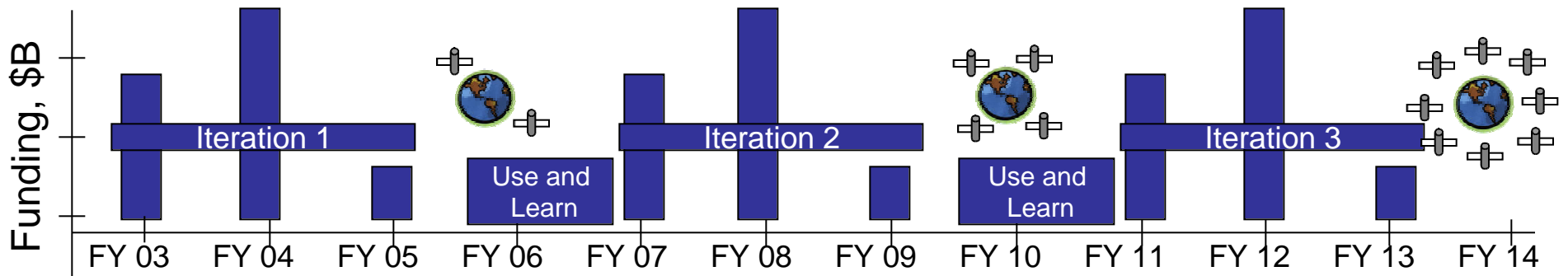
(Advanced Concept Technology Demonstrations)

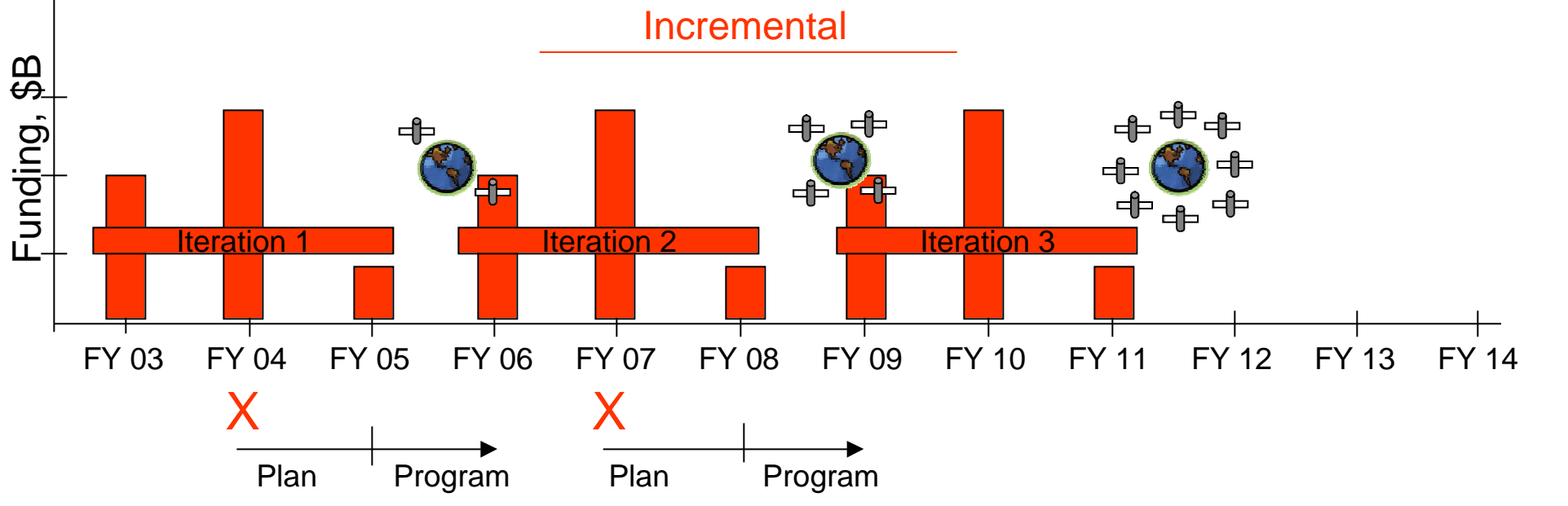
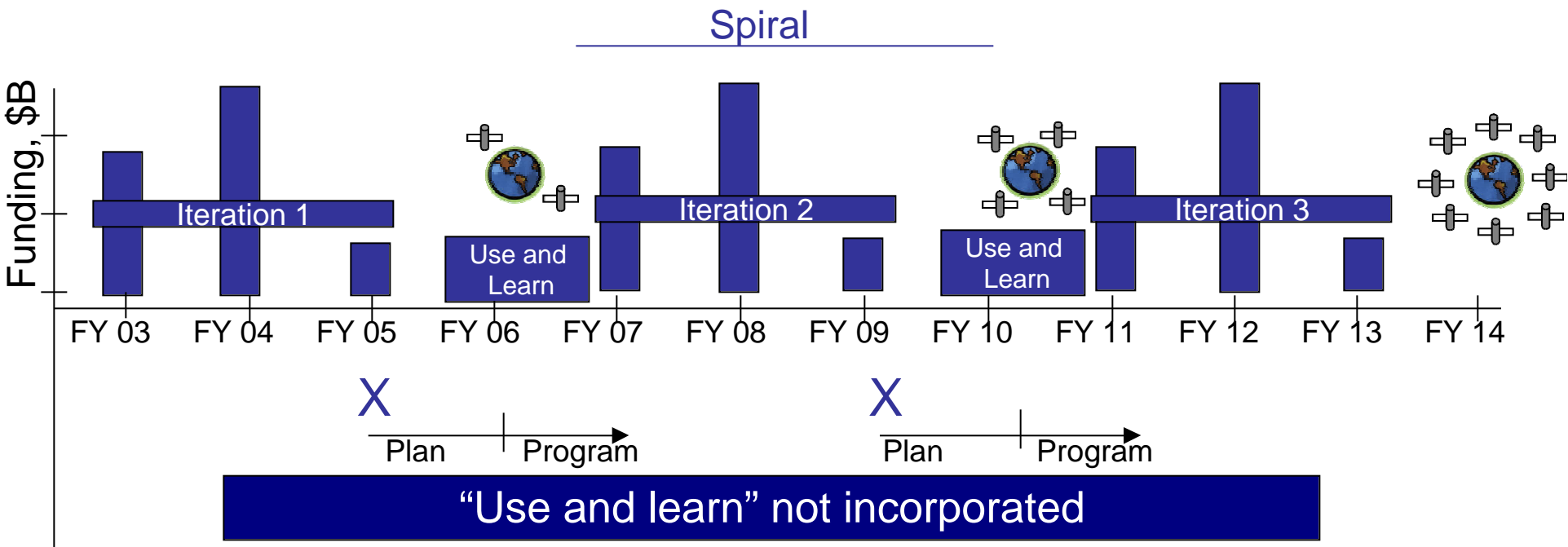
- Program started in 1994 to mitigate the cycle time problem
- 2 to 4 year effort to build a prototype
- Congress approves money before specific projects are selected (~ \$1b per year)
- If successful, projects enter the normal acquisition process
- Global Hawk (and others) slowed down in transition

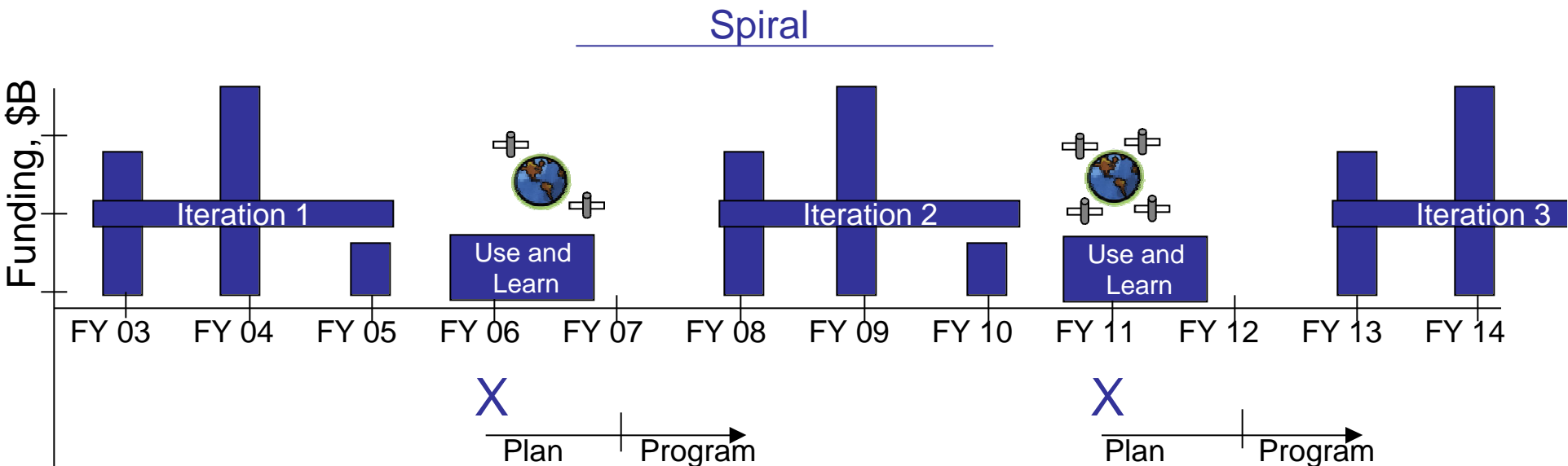
Transitions represent a “use and learn” cycle, and have proven difficult to fund



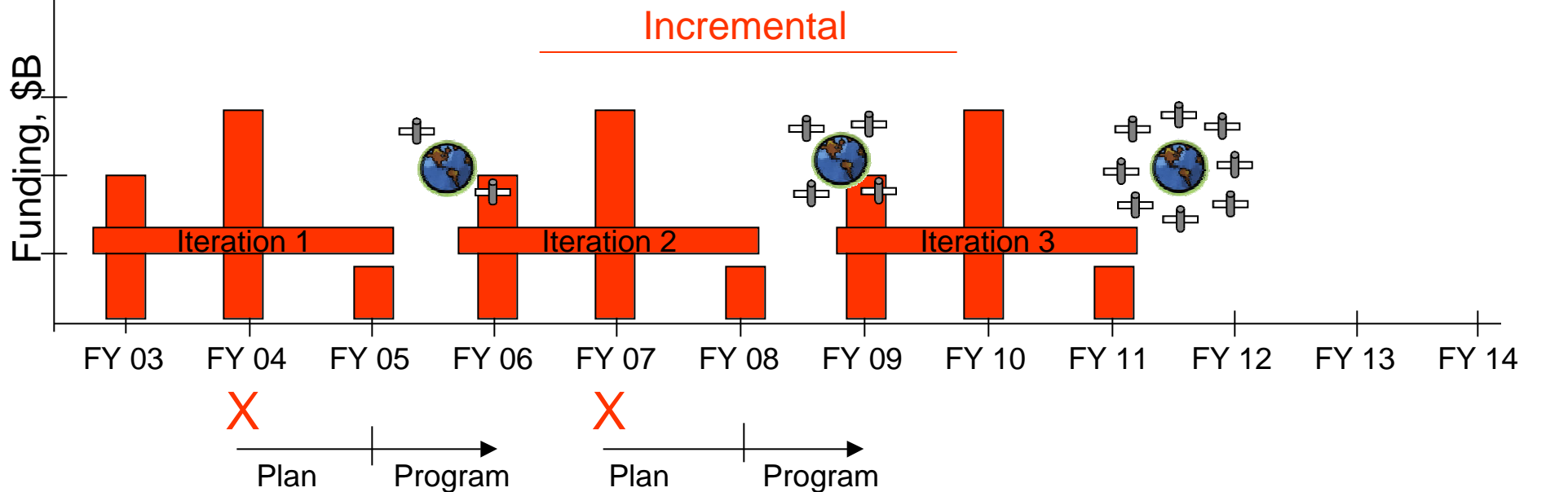
- Concrete Example: Space Based Radar
 - 1) Digital Terrain and Elevation Data (DTED)
 - 8 satellites
 - Small apertures
 - 2) Imaging (SAR) and limited ground movement target indication (GMTI)
 - 16 satellites
 - Larger apertures
 - 3) Better SAR and full tracking capabilities
 - 22 satellites







"Use and learn" incorporated, but timeliness reduced





- Conclusion: One of three things will happen
 - 1) Use and learn will be ignored, funds will be programmed early.
REAL SPIRAL DEVELOPMENT NEVER MATERIALIZES
 - 2) Timing will be delayed. **SPIRAL DEVELOPMENT WILL OCCUR BUT TOO SLOWLY**
 - 3) **FUNDING STRUCTURE WILL CHANGE**



- **Changing the Funding Structure:**
 - **Program in anticipation of success**
 - Undefined money is problematic
 - Services hesitant to set aside money
 - **Circumvent the PPBS process**
 - Undermines the strategic planning purpose of PPBS
 - Who makes decrementing decisions?
 - **Create separate budget category like ACTDs**
 - Congress loses control, must be small programs
 - Loss of contractor control?



- Recommendation: Something like WRAP
 - Warfighter Rapid Acquisition Program
 - Came out of CORONA, borrowed from Army
 - On the order of \$20 M/yr (6 Projects in FY01)
 - Too small for spiral development on large scale
 - Need something bigger....



SPADE (Spiral Program Acquisition and Development Enabler)

- Money used for second and third iterations of projects designated as “spiral”
- Money contained in its own POM. Programs receiving SPADE funds chosen by Air Force leadership
- Only previously funded programs (programs with their own POM) are eligible for funding.
- Anything funded with SPADE is immediately placed in the POM for further funding. (Transition funding is only available to those programs that will be continuing on to a second iteration)
- Total size is comparable to ACTD pool (approx \$1B) (represents 1/20 of AF procurement budget)



Without a way to reduce the two-year cycle, “use and learn” spiral development cannot be realized



- **BACKUP SLIDES**

