USTRANSCOM

Integrity - Service - Excellence

Rapid Improvement Team (RIT) Initiative with Lessons Learned from GTN 21

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29 January 2003

Rapid Improvement Team (RIT) and Evolutionary Acquisition Decision Review (EADR) process. Outline the RIT initiative as an OSD sponsored program to use evolutionary acquisition to get IT capabilities to the warfighter faster. RIT moves large software intensive programs from "Oversight" to "Insight" transforming the way we think about how to satisfy statutory and regulatory acquisition requirements without impacting or stalling programs that would provide sorely needed mission capabilities. GTN 21 is the first of the RIT programs to successfully pass an EADR that gives the equivalent of a MS B decision. This precedent setting event included much discussion about how to shift the burden off proof of compliance on the part of the program office "oversight" to the burden of review and facilitation on the part of the OSD and Service stakeholders "insight".
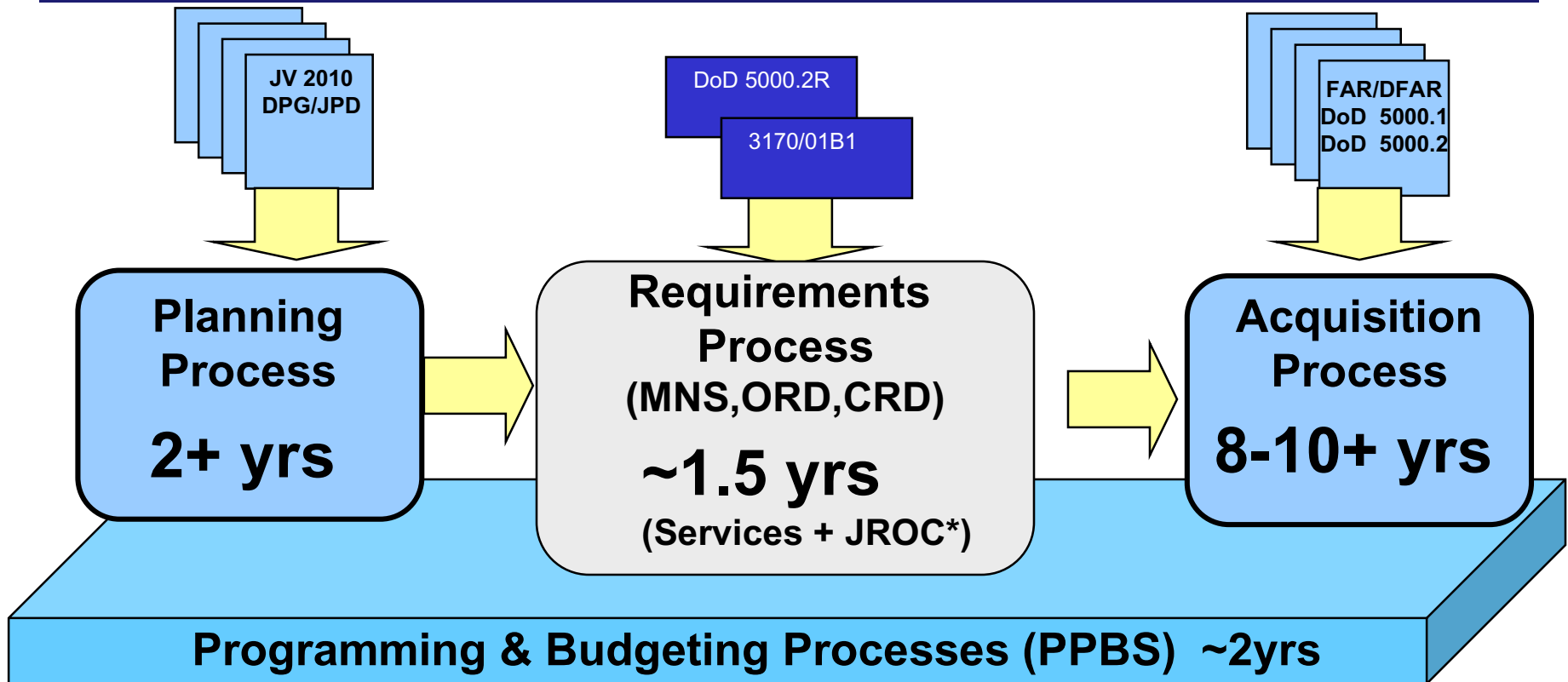
n **Rapid Improvement Team (RIT) Initiative Defined**

n **GTN 21 Overview**

n **GTN 21 Lessons Learned**

The Traditional Acquisition Process Timelines

U.S. AIR FORCE

UNITED STATES TRANSPORTATION COMMAND

JV 2010 DPG/JPD	DoD 5000.2R	FAR/DFAR
	3170/01B1	DoD 5000.1
		DoD 5000.2

Planning Process

2+ yrs

Requirements Process (MNS,ORD,CRD)

~1.5 yrs

(Services + JROC*)

Acquisition Process

8-10+ yrs

Programming & Budgeting Processes (PPBS) ~2yrs

No part of this process is compatible with the pace of technology or the experience of internal IM/IT development in commercial companies
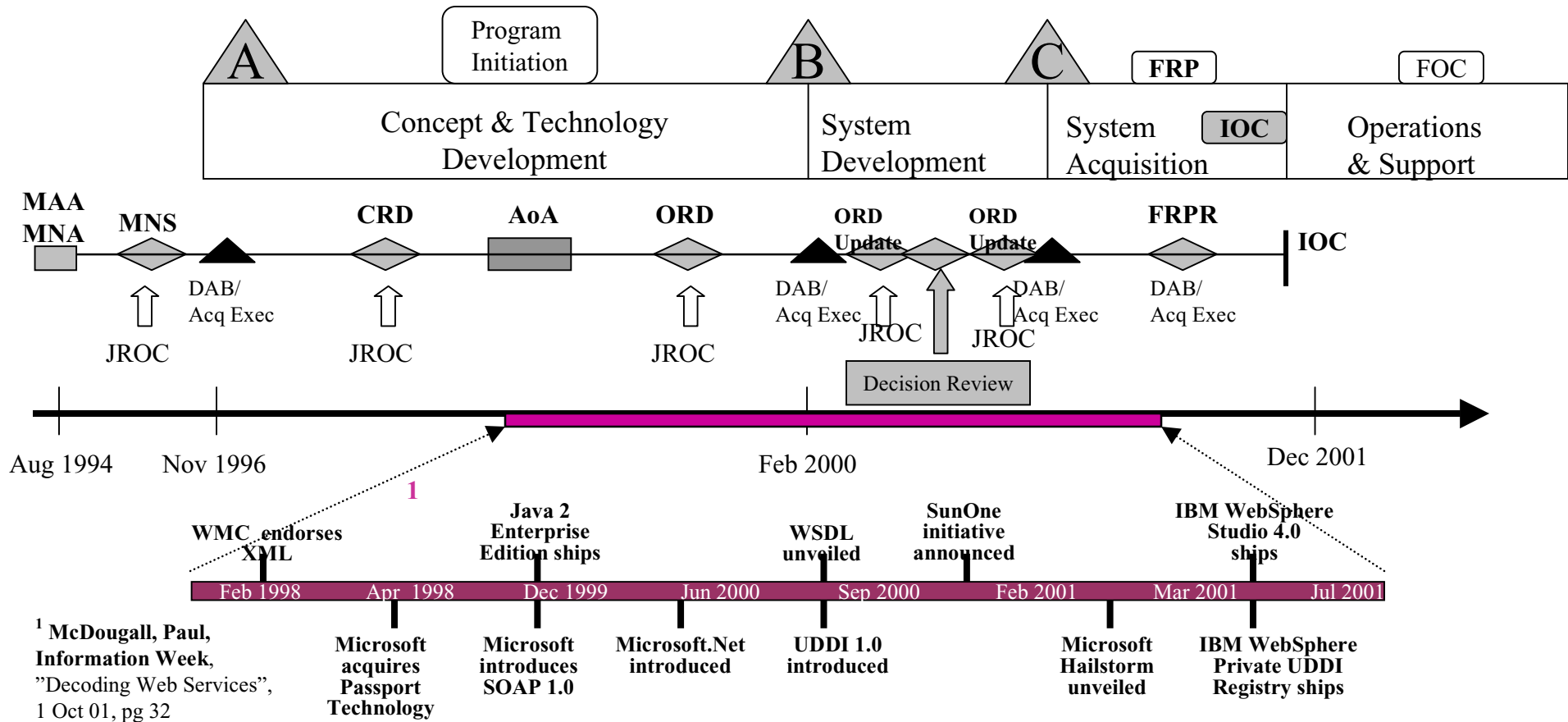
* JROC Cycle is 79 days

GTN 21

Today: Oversight Process That Exceeds IT Innovation Cycle

U.S. AIR FORCE

A — Program Initiation — B — C — FRP — FOC

Concept & Technology Development | System Development | System Acquisition — IOC | Operations & Support

MAA MNA — MNS — CRD — AoA — ORD — ORD Update — ORD Update — FRPR — IOC

DAB/Acq Exec

JROC · JROC · JROC · DAB/Acq Exec · JROC · JROC · DAB/Acq Exec · DAB/Acq Exec

Decision Review

Aug 1994 — Nov 1996 — Feb 2000 — Dec 2001

1

WMC endorses XML

Java 2 Enterprise Edition ships

WSDL unveiled

SunOne initiative announced

IBM WebSphere Studio 4.0 ships

| Feb 1998 | Apr 1998 | Dec 1999 | Jun 2000 | Sep 2000 | Feb 2001 | Mar 2001 | Jul 2001 |

[1] McDougall, Paul, Information Week, "Decoding Web Services", 1 Oct 01, pg 32

Microsoft acquires Passport Technology

Microsoft introduces SOAP 1.0

Microsoft.Net introduced

UDDI 1.0 introduced

Microsoft Hailstorm unveiled

IBM WebSphere Private UDDI Registry ships

Web Services Technology

Life Cycle Profiles
(notional)

TYPICAL A/C SYSTEM LIFE CYCLE

COST

TIME

TYPICAL SPACE SYSTEM LIFE CYCLE

COST

TIME

TYPICAL IT SYSTEM LIFE CYCLE

COST

TIME

RDT&E ——
Procurement ·······
O&M – – –
Disposal ——
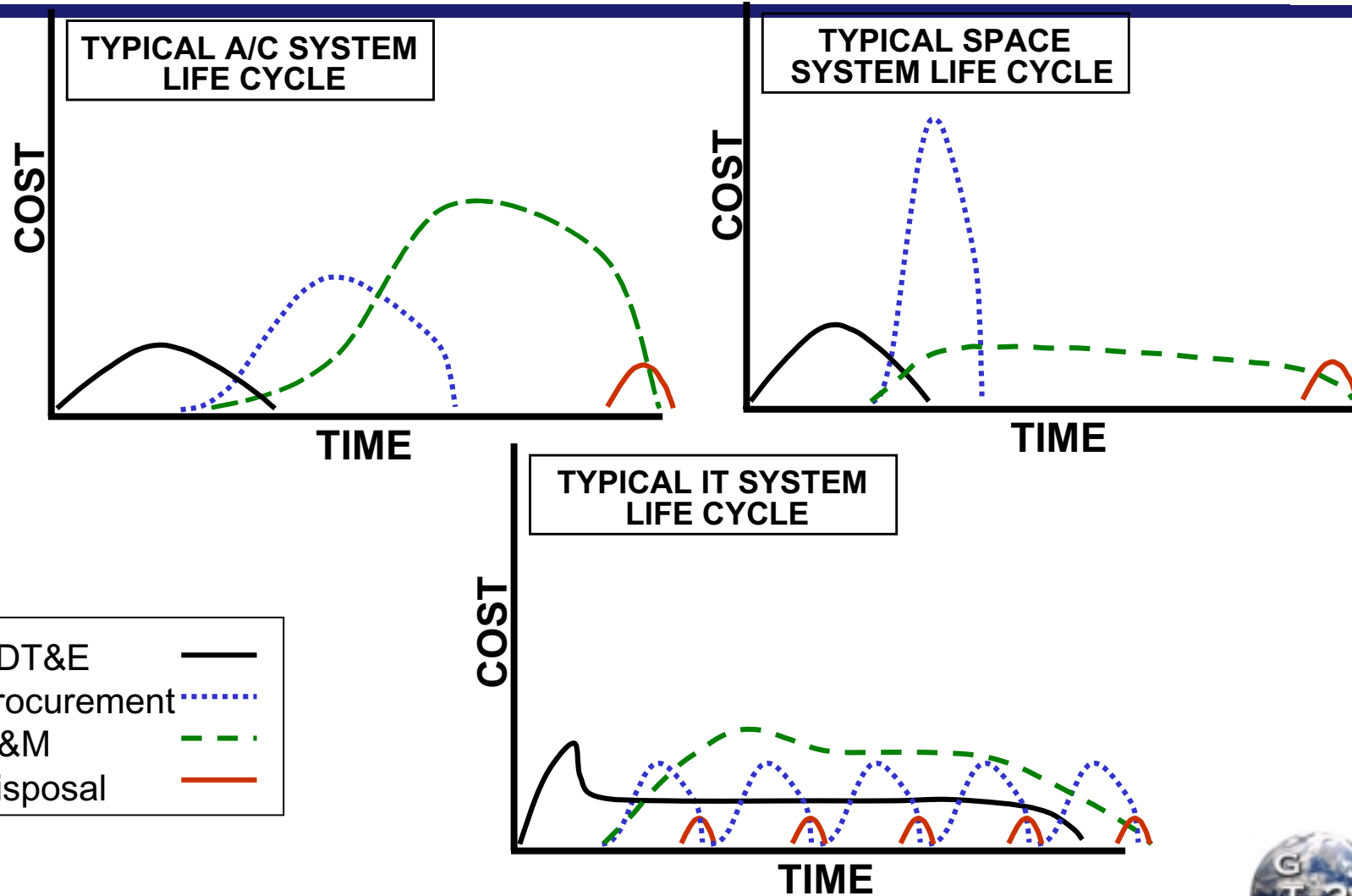
U.S. AIR FORCE

n   **"Information Technology (IT) is a key enabler for transforming military, business, and administrative processes to meet the challenges of the 21st Century. To achieve these objectives, we must strive to** *reduce the cycle time to deliver mission effective IT capabilities to 18 months or less***."**

n   **"...the DoD CIO, USD(AT&L), USD(C), and VCJCS are co-sponsoring a Rapid Improvement Team (RIT) to address this** *reduction in the time to deliver IT mission capabilities and improve mission effectiveness and efficiency***."**

n   **"We have directed the co-chairs to manage this RIT initiative and report its ...recommendations to us not later than October 2001."**
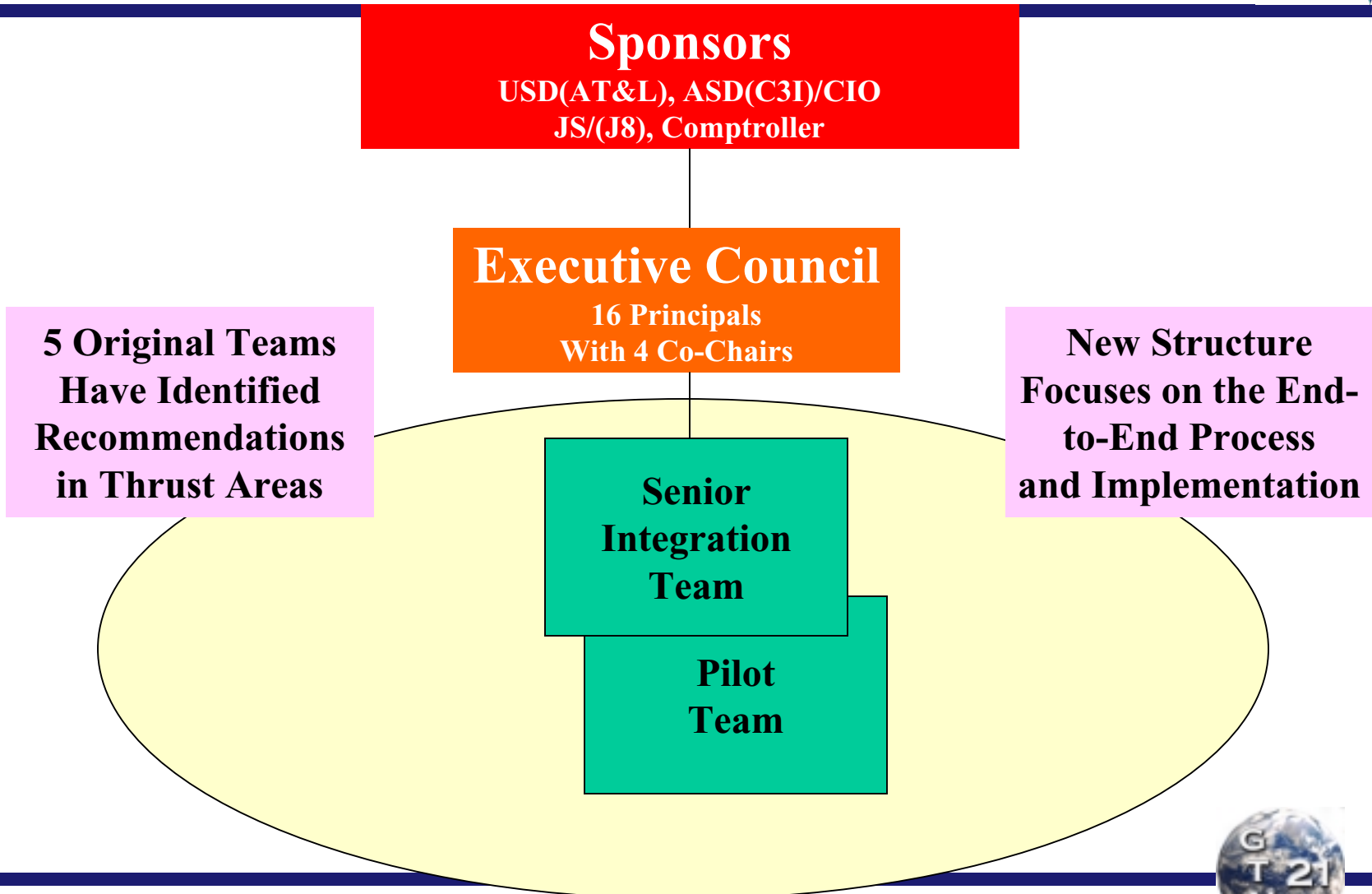
USD(AT&L) and ASD(C3I) Memo, 2 August 2001

RIT Organization Structure

U.S. AIR FORCE

Sponsors
USD(AT&L), ASD(C3I)/CIO
JS/(J8), Comptroller

Executive Council
16 Principals
With 4 Co-Chairs

**5 Original Teams
Have Identified
Recommendations
in Thrust Areas**

**New Structure
Focuses on the End-
to-End Process
and Implementation**

Senior
Integration
Team

Pilot
Team

Integrity - Service - Excellence

IT RIT Executive Council

- **Sponsors:**
    - **Mr. Aldridge (AT&L)**   Mr. Stenbit (C3I/CIO)
    - **Mr. Lanzilotta (Comptroller)**   LTGEN. Carlson (J8)
- **Joint Chairs:**
    - **Dr. Margaret Myers (DCIO)**   Mr. Ron Garant (Comptroller)
    - **Mr. Bob Nemetz (AT&L)**   ADM Stanley Szemborski (J-8)
- **Principals:**
    - **Mr. Dave Borland (Army DCIO)**   Mr. John Landon (C3ISR OIPT)
    - **Mr. Ron Turner (Navy DCIO)**   Mr. Dale Uhler (DASN)
    - **Mr. John Gilligan (AF CIO)**   Mr George Wauer (DOT&E)
    - **Ms. Diane McCoy (DISA) (AFPEO/CS&CS)**   Mrs Virginia Williamson
    - **Mr. Bill Curtis (DCIO)**   Mr. John Osterholz (DCIO)
    - **BG Charles Croom (J-6)**   COL Mike Perrin (J-8)

Overarching Goal

<u>Reduce cycle time to deliver</u>

<u>mission effective IT capabilities</u>

<u>to 18 months or less</u>

RIT Pilot Major Thrusts

- **Risk-Balanced Oversight - The allocation of appropriate supervision and oversight resources consistent with:**
  - The risks of the investment and;
  - The goal to manage and oversee programs at the lowest competent and capable level.

- **Doc X - The sum of information needed to enable a decision maker to set the program on a given acquisition path with a defined level of oversight appropriate to the risk involved**

- **Information - Utilize an information-based portal providing real-time visibility of IT programs in a joint/shared, secure database open to the community to pull from to do their job**
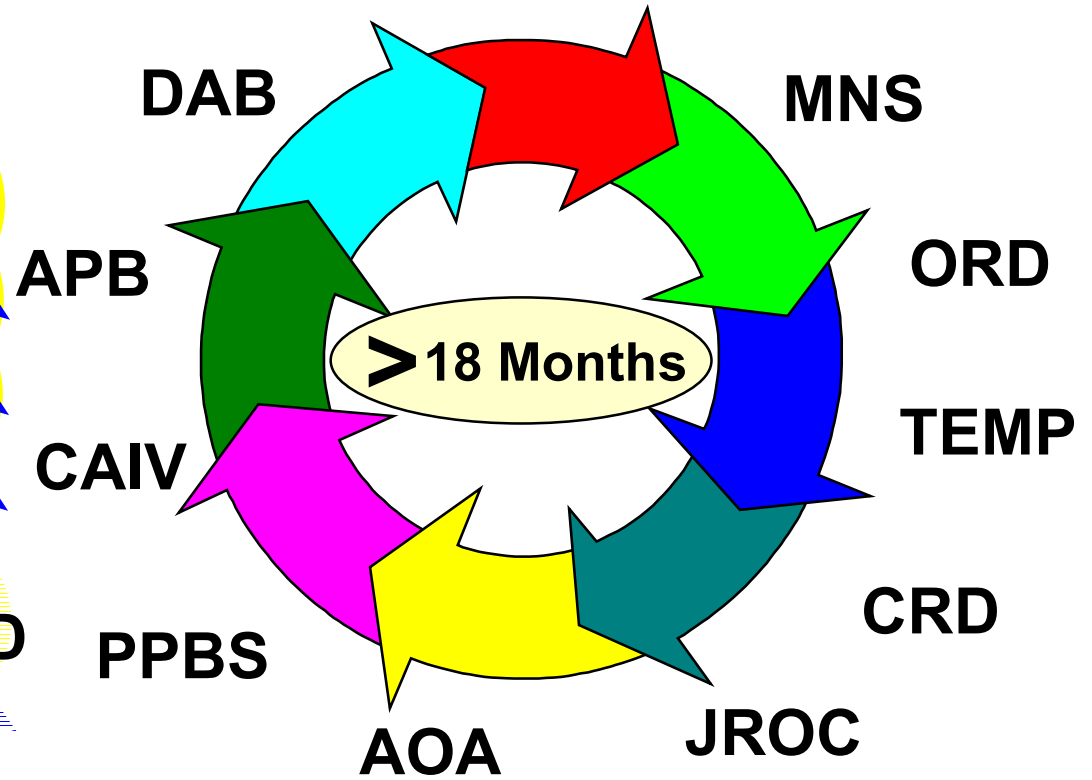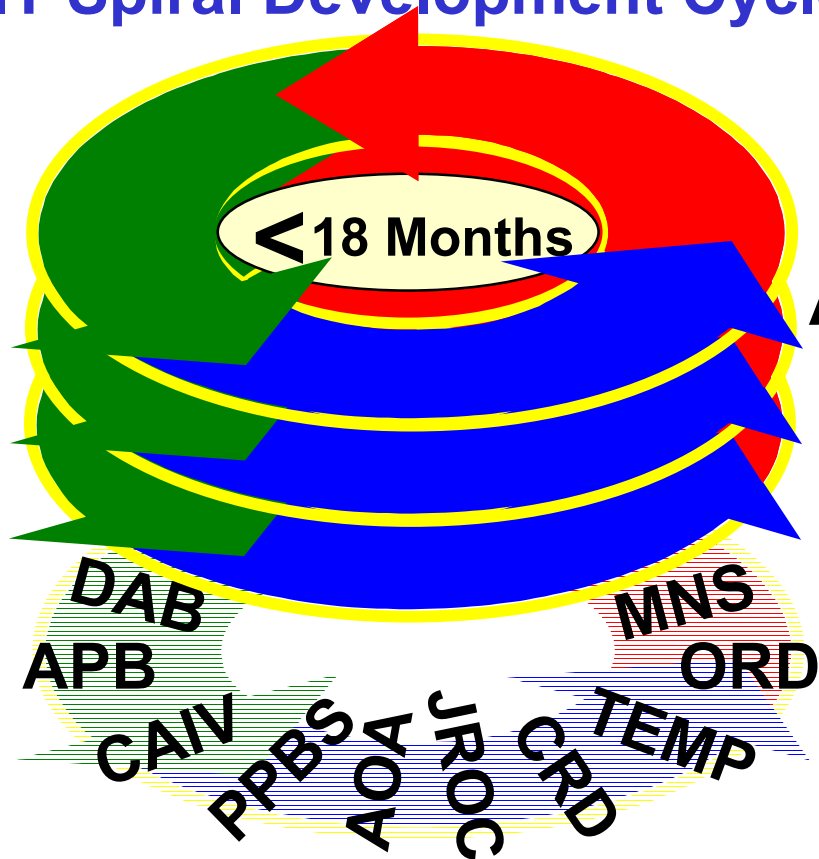
IT Spiral Development & Acquisition Process Cycles

IT Spiral Development Cycle

< 18 Months

DAB
APB
CAIV
PPBS
AOA
JROC
CRD
TEMP
MNS
ORD

Acquisition Process Cycle

> 18 Months

DAB
MNS
ORD
TEMP
CRD
JROC
AOA
PPBS
CAIV
APB

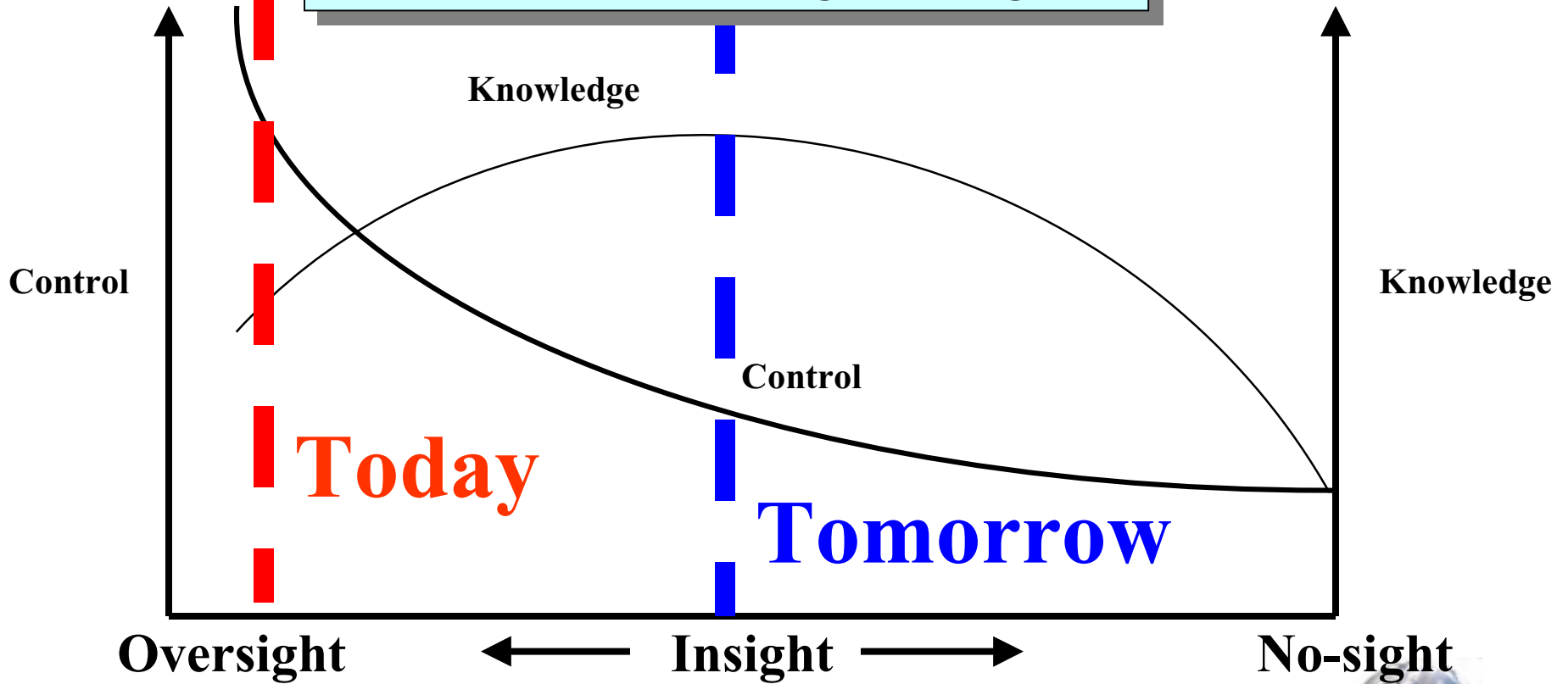*DoDI 5000.2 inflexible, time consuming oversight process*

Our Goal: More Timely Knowledge & Less Control

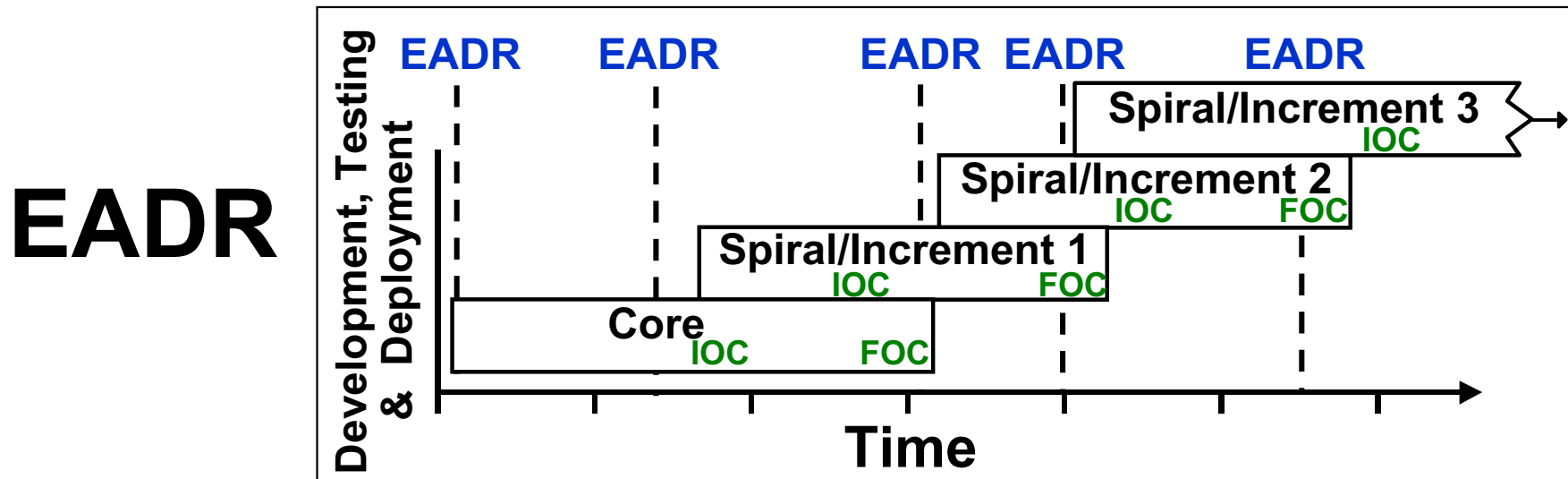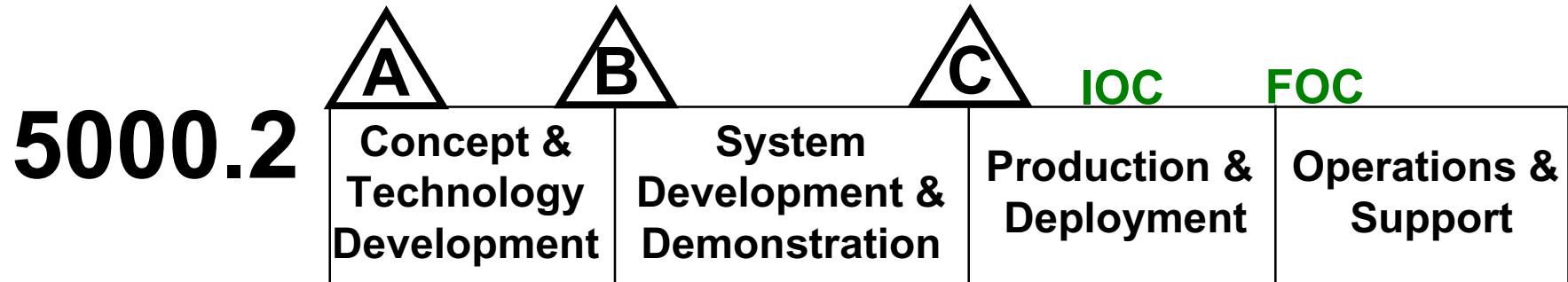The RIT Pilot will utilize the Army's Acquisition Portal and the EADR process to move us from oversight to insight.

Control

Knowledge

Knowledge

Control

Today

Tomorrow

Oversight ⟵ Insight ⟶ No-sight

Spiral EADR Process Approach Supports 5000.2 Agile Acquisition

5000.2

A	B	C	IOC	FOC
Concept & Technology Development	System Development & Demonstration	Production & Deployment	Operations & Support	

EADR

Development, Testing & Deployment

EADR   EADR   EADR   EADR   EADR

Spiral/Increment 3
IOC

Spiral/Increment 2
IOC   FOC

Spiral/Increment 1
IOC   FOC

Core
IOC   FOC

Time

EADRs Incorporate IT Program Milestone Reviews

- **EADR process objectives**
  - **Establish an agile acquisition process involving strong Customer and PEO participation (and OSD where appropriate)**
    - Allocates funds that are aligned with operator prioritized requirements
    - Aligns oversight process with spiral development strategy
    - Delivers functional capability within the customer's current funding envelope
  - **Establish a responsive and disciplined requirements process**
    - Retains corporate ability to make timely decisions and change direction as required

- **EADR process objectives (continued)**

  - **Align program documentation and performance metrics to IT Spirals**

  - **Identify the management infrastructure to manage program and incremental spirals**

    - Processes, tools, and manpower

  - **Satisfy DoDI 5000.2 mandates and applicable EA AFIs/OIs**

    - Across spirals at various stages of acquisition
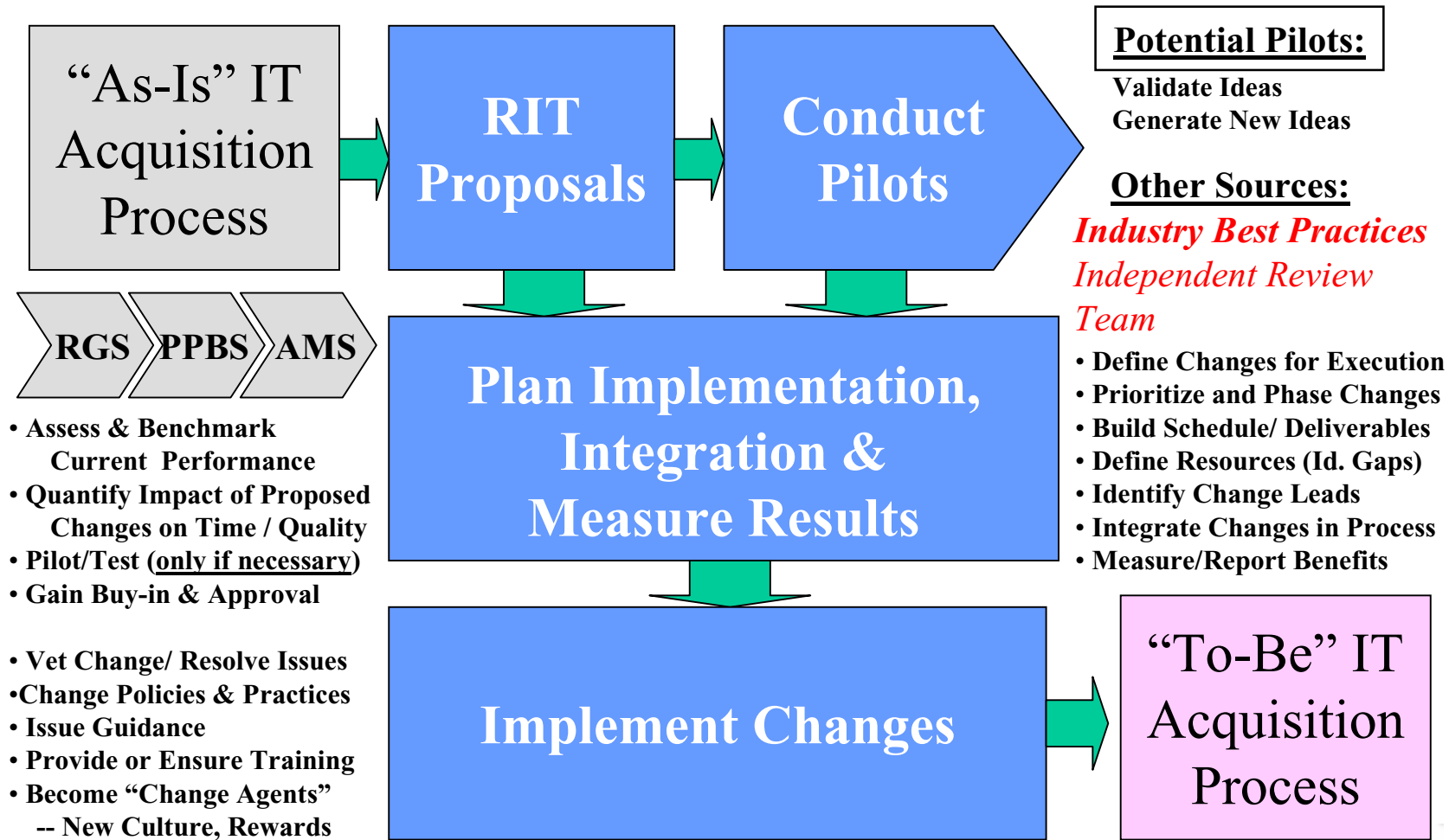
IT RIT Process

"As-Is" IT Acquisition Process

RGS **PPBS** **AMS**

• Assess & Benchmark
   Current Performance
• Quantify Impact of Proposed
   Changes on Time / Quality
• Pilot/Test (only if necessary)
• Gain Buy-in & Approval

• Vet Change/ Resolve Issues
•Change Policies & Practices
• Issue Guidance
• Provide or Ensure Training
• Become "Change Agents"
   -- New Culture, Rewards

RIT Proposals

Conduct Pilots

Plan Implementation, Integration & Measure Results

Implement Changes

Potential Pilots:

Validate Ideas
Generate New Ideas

Other Sources:

Industry Best Practices
Independent Review Team

• Define Changes for Execution
• Prioritize and Phase Changes
• Build Schedule/ Deliverables
• Define Resources (Id. Gaps)
• Identify Change Leads
• Integrate Changes in Process
• Measure/Report Benefits

"To-Be" IT Acquisition Process

Focus of IT RIT Activities

- n **Innovation, agility and speed to meet emerging threats -- e.g., Homeland Defense**

- n **Delivery of mission-effective IT capabilities to the warfighter within threat / technology cycle times**

- n **Shift to risk-based oversight with reduced burden and staffing**

- n **Delegate responsibility and accountability to lowest levels -- process owners & developers**

- n **Establish improved DoD "End-To-End" IT Acquisition, Management and Oversight Policies and Processes that rapidly deliver mission effective IT capabilities to the warfighter and other users**

Summary

- **IT RIT developed set of recommendations focused on reducing acquisition cycle time and improving effectiveness**

- **Integration of recommendations with the current "As-Is" system (RGS, PPBS and AMS) underway**

- **RIT restructured for implementation and risk mitigation**
  - **Implementation/Integration Team**
  - **Pilot Team**
    - **New Concepts Exploration/Experimentation**

- **Positioned for near- and mid-term change**
  - **Fix long-standing problems in near-term, position for "radical" change**
  - **Pilot and explore new ideas to feed the new process**
  - **Evolve to a "To-Be" new way of doing business (mid- to long-term)**

Pilot Candidates

AF - GCSS-AF, ILS-S, IMDS, SCS, GTN21, FIRST

NAVY - NAVSEA (ERP)- NEMAIS, NTCSS, GCSS-M

ARMY - TC-AIMS II

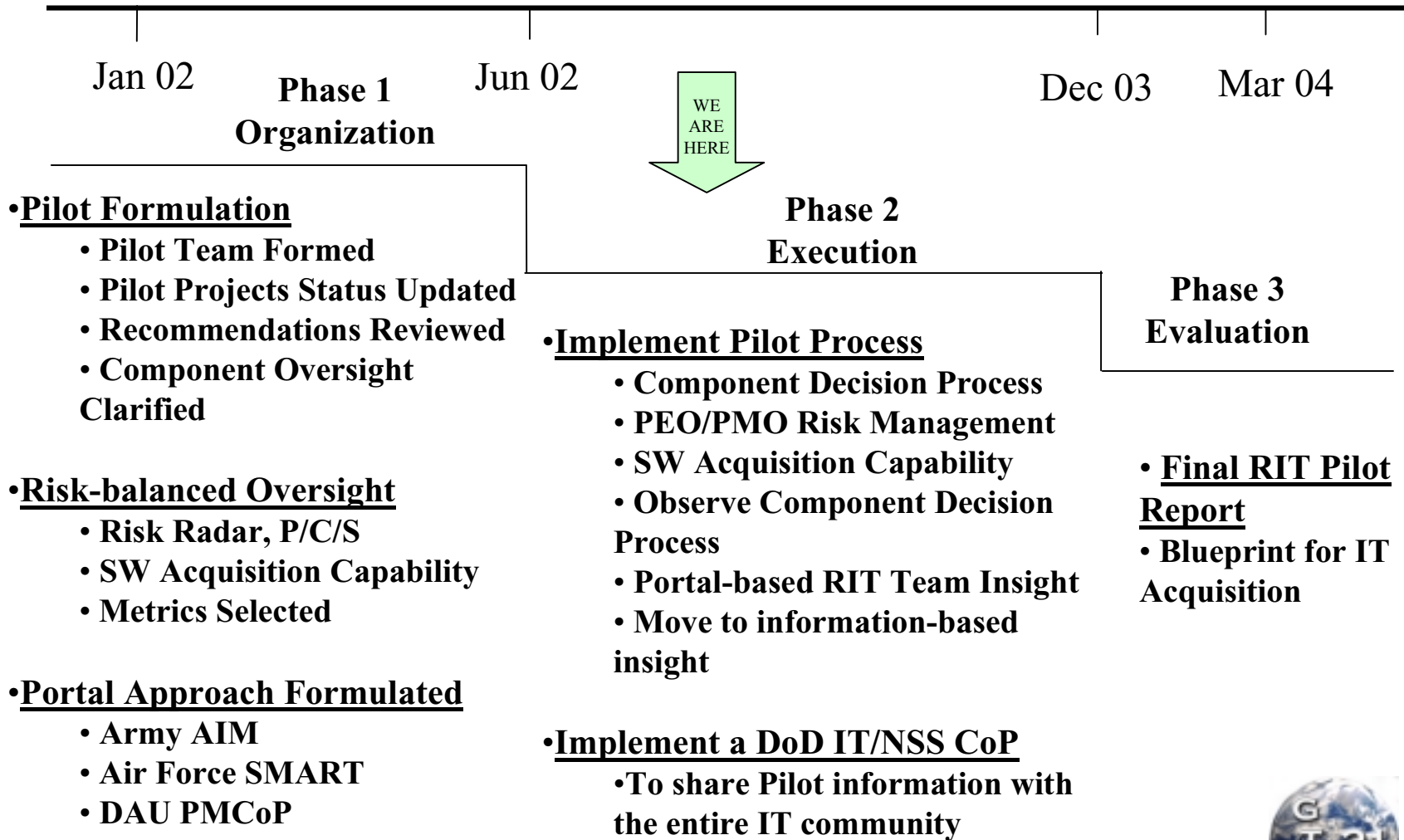**DISA** -   GCSS(CINC/JTF)

Health Affairs - Systems TBD

- **AF (GCSS-AF, ILS-S, IMDS, SCS, FIRST, GTN-21)**
  - EADR (Evolutionary Acquisition Development Review)
  - Decision Authority - PEO- Brig Gen (sel) Dehnert /Ms Williamson
- **Health Affairs (TMIP)**
  - Capitalize on existing MHS IM/IT program governance
  - Decision Authority - ASD (Health Affairs) - Dr. Winkenwerder
- **DISA (GCSS-CC/JTF)**
  - Periodic reviews to monitor progress following initial program review
  - Decision Authority - Principal Director - Ms McCoy
- **Army (TC-AIMS-II)**
  - Draft DA acquisition process for RIT Pilot
  - Decision Authority – ASD (C3I) – Mr. Stenbit
- **Navy (NTCSS)**
  - Virtual Oversight thru use of portal for decisions
  - Decision Authority – DASN(C4I/EW/Space) - Dr. Uhler

RIT Pilot Phases & Milestones

Jan 02   Jun 02   Dec 03   Mar 04

Phase 1
Organization

WE ARE HERE

Phase 2
Execution

Phase 3
Evaluation

•**Pilot Formulation**
- Pilot Team Formed
- Pilot Projects Status Updated
- Recommendations Reviewed
- Component Oversight Clarified

•**Risk-balanced Oversight**
- Risk Radar, P/C/S
- SW Acquisition Capability
- Metrics Selected

•**Portal Approach Formulated**
- Army AIM
- Air Force SMART
- DAU PMCoP

•**Implement Pilot Process**
- Component Decision Process
- PEO/PMO Risk Management
- SW Acquisition Capability
- Observe Component Decision Process
- Portal-based RIT Team Insight
- Move to information-based insight

•**Implement a DoD IT/NSS CoP**
- To share Pilot information with the entire IT community

• **Final RIT Pilot Report**
- Blueprint for IT Acquisition

U.S. AIR FORCE

- **Rapid Improvement Team (RIT) Initiative Defined**
- **GTN 21 Overview**
- **GTN 21 Lessons Learned**

To gather the family of transportation customers and providers of lift into an integrated Defense Transportation System (DTS) data infrastructure that will provide the Intransit Visibility (ITV) and the C^2 decision support information necessary to meet customer requirements.

n   **The Mission**

  n   **Provide near-real time visibility…**

  n   **Global, multi-modal movement**

  n   **Passengers, Cargo, Patients**

  n   **Peace, War, Contingencies**

  n   **Provide the Warfighter with C2 Decision Support Capabilities**

U.S. AIR FORCE

DoD, Service, & Commercial Interfaces:
- AIR Ops
- LAND Ops
- SEA Ops
- UNIT
- SUPPLY
- COMMAND & CONTROL

ITV

FEEDS

G T N

INTEGRATED DATABASE

C2
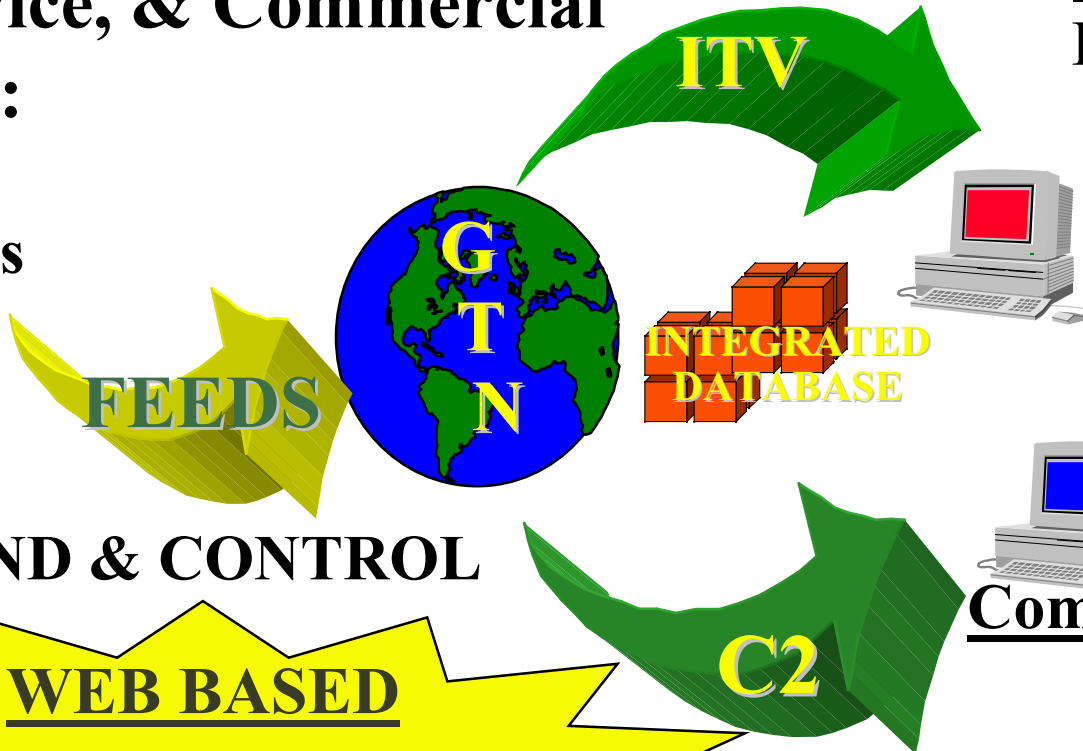
DTS Customers
Deploying Units
Materiel Mgrs
TMOs/ITOs
Depots
Service HQs
Systems

Command Centers
Operators
Planners
Logisticians
Systems

WEB BASED
Classified - Secret
Unclassified - Sensitive/Protected

Integrity - Service - Excellence

Replacement System Strategy

- n **Shortcomings in Current GTN System**
  - n **Does not satisfy all ORD requirements**
  - n **Obsolete technology**
  - n **Replacement strategy chosen**

- n **Full and Open Competition, Best Value**
  - n **Competition critical for innovation, quality and affordability**
  - n **Allows current technology insertion**
  - n **Will satisfy all ORD requirements**
  - n **Significant lessons learned from current program**

Acquisition Strategy

Designated RIT Pilot

FY01 - FY02

2nd Qtr FY02

3rd Qtr FY02

4th Qtr FY02

Acquisition Strategy Formulation

Phase I Source Selection

Phase II Down Select

Execution

- Industry Days (5)
- One-on-Ones (40+)
- Web Accessible Info
- RFI
- Sources Sought
- Draft RFPs
- RFP Release

- Evaluate Proposals
  - Written
  - Oral (In-Plant)
  - Interim Ratings
  - SSA Rebuttal
  - Discussions

- Deliverables:
  - DBDD
  - Technical Approach
  - IMP/IMS

- Development
- Operations
- Maintenance

Contract Award

Exercise Option

Two-Phase Approach

- **Two Phase Approach**

- **Phase I - Risk Mitigation & Data Gathering**
  - **Firm Fixed Price**
  - **At least 2 contracts – $2M per contract ***
  - **4-Month Period of Performance**
  - **Deliverables**
    - Tailored Database Design Document (DBDD)
    - Integrated Master Schedule (IMS)
    - Technical Approach & Integrated Master Plan (IMP)
  - **Cost Proposal received after tech eval completed**

* Award made to Northrop Grumman Information Technologies, TRW, CSC, and Harris
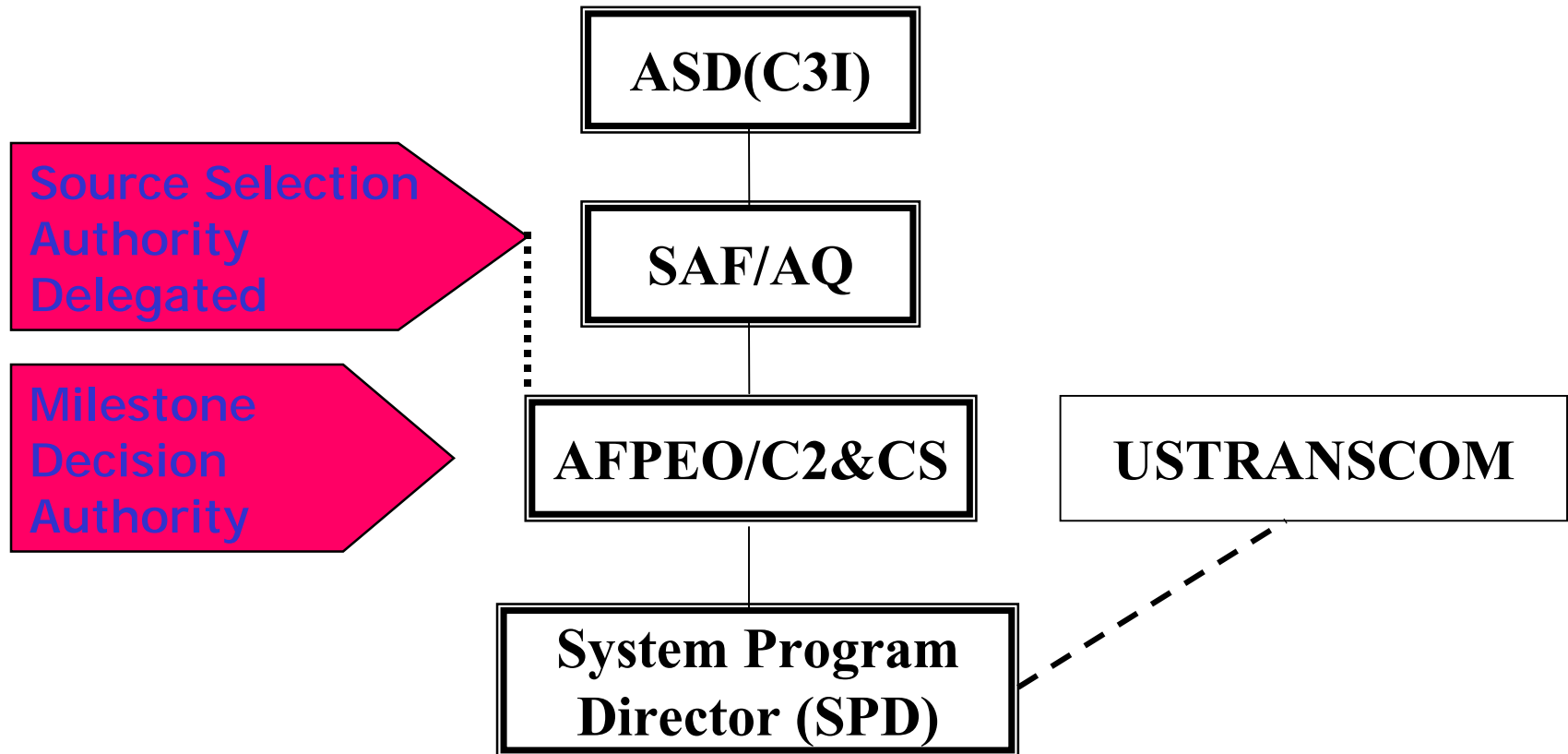
Two-Phase Approach (cont)

- Phase II - Development and O&M (up to 16 years)
    - Cost Plus Award Fee
    - Exercise Option on single Phase I Contract
    - 3-Year Development to IOC
    - 2-Year Development to FOC
    - 2 Years O&M Between IOC & FOC
    - 1-Year Follow-on O&M Post FOC
    - 10-Year Follow-on Maintenance
    - Actual Durations Depend on Proposed Schedule

Program Management

```
                    ┌─────────────┐
                    │  ASD(C3I)   │
                    └──────┬──────┘
                           │
  ╔══════════════╗         │
  ║ Source Selection        ┌──────┴──────┐
  ║ Authority     ╞┈┈┈┈┈┈┈┈ │   SAF/AQ    │
  ║ Delegated     ║         └──────┬──────┘
  ╚══════════════╝                 │
  ╔══════════════╗     ┌───────────┴────────┐     ┌──────────────┐
  ║ Milestone     ║    │   AFPEO/C2&CS      │     │ USTRANSCOM   │
  ║ Decision      ╞    └───────────┬────────┘     └──────────────┘
  ║ Authority     ║                │
  ╚══════════════╝     ┌───────────┴────────┐
                       │  System Program    │
                       │  Director (SPD)    │
                       └────────────────────┘
```

ASD(C3I)

Source Selection Authority Delegated

SAF/AQ

Milestone Decision Authority

AFPEO/C2&CS   **USTRANSCOM**

System Program Director (SPD)

USTRANSCOM Stakeholders

USTRANSCOM CINC & DCINC

J6
- **System Administration**
- **System Operators**

GTNPMO
- **Contractor Oversight**
- **Program Management**
- **Technical Requirements**

J3
- **Functional Administration**
- **Requirements**
- **Outreach**
- **ITV Planning/Metrics**

System Characteristics

- **Hardware: COTS**
- **Software: COTS & Developed**
- **Primary Site: Scott AFB**
- **Alternate Site: DECC STL**
- **User Interface: Web-Based—No Deployed Code**
- **Large Database**
- **Multiple Interfaces**
  - Aggregate Data from many sources
  - No direct data input
  - Supply aggregated data to end users/customer systems

n **Rapid Improvement Team (RIT) Initiative Defined**

n **GTN 21 Overview**

n **GTN 21 Lessons Learned**

Acquisition Streamlining (RIT)

- **Oversight as exception processing**
- **Continuous access to info for comment vice shepherd through long approval process**
  - **Post to AIM (Doc X)**
- **Periodic Evolutionary Acquisition Decision Reviews (EADRs) replace formal milestones**
- **Establish 18 month max delivery cycle**
- **Designated GTN 21 from ACAT 1AM to 1AC**
- **MDA lowest appropriate level (AFPEO/C2&CS)**

Proposed IT EADR Example:

Nov 99

EADR 1		EADR 2	In-Process Review	EADR 3		EADR

Mar 02 — 6 Months — **Sep 02** — 12 Months — **Sep 03** — 12 Months — **04**

Contract Award

Deliver Spiral 1

Approved:
- What are we buying?
-- Requirements
- How are we buying it?
-- Funding
-- Acquisition approach
-- EADR Approach
- What are the risks?
-- Risk ID complete

Documentation
- MNS
- Draft ORD (w/ Interoperability KPP)

Approved:
- What are we buying?
-- Requirements
- How are we buying it?
-- Funding
-- Acquisition approach
- What are the risks?
-- Mitigation Plans complete
-- Incentive Plan

Documentation
- Doc X
-- Evol Pgm Baseline
   Year 1: Baselined
   Yrs 2-8: Forecast

Exit Criteria

Approved:
- What are we buying?
- How are we buying it?
- What are the risks?

DocX
- Evol Pgm Baseline
   Year 2: Baselined
   Yrs 3-9: Forecast
- Updates

Senior Official Involvement Critical to Success

TC-21 EADR Participants

Key Stakeholders involved (VTC)

- **MDA:**
  - **Deputy AFPEO (C2&CS), Co-Chair**

- **User:**
  - **TCJ3/4, Co-Chair**
  - **JSJ4**

- **CIO:**
  - **TCJ6, Co-Chair**
  - **AFCIO**
  - **DASD(C4ISR)**

- **Test**
  - **OSD(T&E)**
  - **AF/TE**
  - **AFOTEC**

- **Budget/Cost:**
  - **TCJ8**
  - **OSD Comptroller**
  - **SAF/FMC**
  - **AFCAA**

- **Acquisition:**
  - **SAF/AQC/AQI/GCQ**
  - **AFMC/DR**
  - **ESC/AE/JA**

Decision Authority and Customers as Co-Chairs

GTN 21 EADR Outline

n **What Are We Buying?**

n **How Are We Buying It?**

n **What Are the Risks?**

n **Clinger-Cohen Act Compliance**

n **Test Strategy**

n **Security Strategy**

n **Documentation**

n **Summary/Recommendation**

- **Mapped goals of the EADR with MS B requirements in DODI 5000.2**
- **Tailored to Program Needs**
- **Evidence of total compliance posted on AIM**

RIT Lessons Learned for GTN 21

- **Designation From 1AM to 1AC Effects**
  - MDA Has Day-to-Day Knowledge of Program
  - Streamlined CCA Confirmation
  - OSD Gray Beards Still on Board
- **Teaming with Key Stakeholders Throughout Acquisition Process**
  - Test IPT Critical to Successful Test Strategy
  - CCA IPT Resolved GTN 21 Unique Situation
  - C4ISP Not Affected by RIT – 18 Month Process

RIT Lessons Learned for GTN 21 (cont.)

- EADR Minutes Serve as ADM, Streamlines Approval—Reduces cycle time
- User Involvement Still Critical to Success
    - Author CCA Compliance Items (I.E. BPR, MPMs)
    - Author and Coordinate MNS, AoA, ORD
    - Participate in SAMP, TRD, RFP, C4ISP
- Change From Oversight to Insight with Expert Help Another Key
    - Initiative Sharing – Information Pull Vs. Document Push
    - IIPT Was First Step; RIT Takes It Rest of the Way

- **Document X (AIM)**
  - **Central Repository for Stakeholders to Pull All Program Information**
  - **Initial Move From Document Focus to Information Focus**
  - **Need a program information structure upon which to build common repository**
  - **Define views for communities of interest**
- **Pre-brief to EADR Co-chairs and Information Flow Prior to EADR Helped Set Expectations**

Recommendations

- n **Delegate MDA to Lowest Appropriate Level**
- n **Use EADRs for All IT Programs**
- n **Continue to Foster Culture**
  - n **From Oversight to Insight**
  - n **Information Pull vs. Document Push**
  - n **Signature/approval process not there yet**
- n **C4ISP Process Too Long - Integrate with Doc X**
- n **Document X vs. myriad program documents**
  - n **Build common common program information repository**
  - n **Provide views for communities of interest (i.e. C4ISP)**
- n **IIPT Still Needed, but Facilitated by AIM**
- n **Align Financial Management Process (AFCAIG) with EADRs**

Abbreviations

A/C - Aircraft

AFI - Air Force Instruction

AFPEO/C2&CS - Air Force Program Executive Officer for Command Control & Combat Support

AOA -Analysis of Alternatives

APB - Acquisition Program Baseline

ASD(C3I) - Assistant Secretary of Defense for Command Control Communications and Intelligence

C2 - Command and Control

CAIV - Cost as an Independent Variable

CINC - Commander in Chief

CONOPS - Concept of Operations

CRD - Capstone Requirements Document

DAB - Defense Acquisition Board

DoDI - Department of Defense Instruction

USD(AT&L) - Under Secretary of Defense for Acquisition Technology and Logistics

EA - Evolutionary Acquisition

EADR - Evolutionary Acquisition Decision Review

Evol - Evolutionary

FoS - Family of Systems

FOC - Full Operational Capability

IOC - Initial Operational Capability

ISC2 - Intelligence Surveillance Command and Control

IT - Information Technology

JROC - Joint Requirements Oversight Council

KPP - Key Performance Parameter

MOB - Mission Operations Board

MDAP - Major Defense Acquisition Program

MNS - Mission Need Statement

N/UWSS - NORAD/USSPACECOM Warfighting Support System

OAB - Operations Approval Board

OI - Operating Instruction

O&M - Operations and Maintenance

ORD - Operational Requirements Document

OSD - Office of the Secretary of Defense

PEO - Program Executive Officer

Pgm - Program

PPBS - Planning, Programming, and Budgeting System

RDT&E - Research, Development, Test and Evaluation

RFP - Request for Proposal

SAMP - Single Acquisition Management Plan

TEMP - Test and Evaluation Master Plan