U.S. AIR FORCE

DELAYING DEGRADATION DURING DIVESTMENT– A-10 WARTHOG

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Outline

- Concerns
- Aircraft Structural Integrity Program (ASIP)
- Unforeseen Challenges

Concerns

- Personnel reassignments come faster than expected
  - Imagine downsizing your group by 85% in 1.5 months
  - Imagine continuing programs with 15% after 1.5 months of furlough
- Fleet downsizing does not necessarily provide relief
  - Every base also redistributes laborers – not as agile as before
  - Personnel find new jobs en masse
- Facilities downsize
  - Loss of depot
  - Loss of back shops
- Workload
  - 13 efforts reduced/removed/consolidated
  - 9 readiness efforts to be maintained
  - *"With only 40% of efforts to be completed, you should be on easy street!"*

Yes and No

Concerns

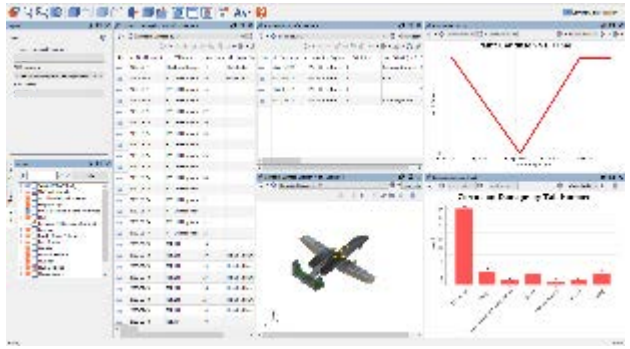
Perceived Outgoing

Reality

Perceived Staying

Aircraft Structural Integrity Program

- MIL-STD-1530D
- Eight-Year Corrosion (8YC) Inspections
  - No depot
  - Aircraft coming due
    - Understand your risk – Cost mitigation 8YC vs 9YC vs 10YC; What is MX cost increase for every year extended?
      - NLign is valuable tool if you maintained your records
        - Tracked: OML paint scores, previous extensions, O&A corrosion labor hours, corrosion locations, ETAR
        - Quantify your corrosion hotspots – CPCP is valuable for this as well!
        - Quantify length, breadth, depth of corrosion
    - More data leads to better informed decisions



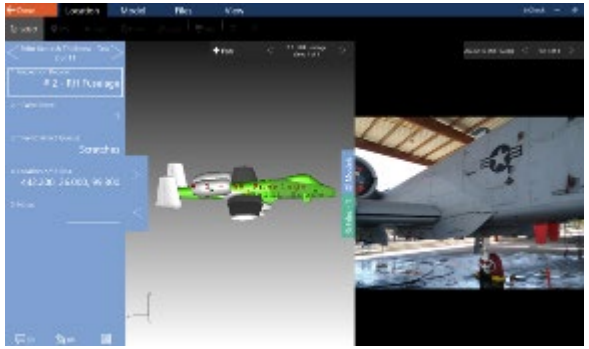


TABLE I. USAF Aircraft Structural Integrity Program Tasks.

TASK I	TASK II	TASK III	TASK IV	TASK V
DESIGN INFORMATION	DESIGN ANALYSES & DEVELOPMENT TESTING	FULL-SCALE TESTING	CERTIFICATION & FORCE MANAGEMENT DEVELOPMENT	FORCE MANAGEMENT EXECUTION
5.1.1 ASIP Master Plan	5.2.1 Material and Structural Allowables	5.3.1 Static Tests	5.4.1 Structural Certification	5.5.1 L/ESS Execution
5.1.2 Design Service Life & Design Usage	5.2.2 Loads Analysis	5.3.2 First Flight Verification Ground Tests	5.4.2 Strength Summary & Operating Restrictions (SSOR)	5.5.2 IAT Execution
5.1.3 Structural Design Criteria	5.2.3 Design Loads/Environment Spectra	5.3.3 Flight Tests	5.4.3 Force Structural Maintenance Plan (FSMP)	5.5.3 DADTA Updates
5.1.4 Durability and Damage Tolerance Control	5.2.4 Stress and Strength Analysis	5.3.4 Durability Tests	5.4.4 Loads/Environment Spectra Survey (L/ESS) System Development	5.5.4 L/ESS and IAT System Updates
5.1.5 Corrosion Prevention & Control (CPC)	5.2.5 Durability Analysis	5.3.5 Damage Tolerance Tests	5.4.5 Individual Aircraft Tracking (IAT) System Development	5.5.5 NDI Updates
5.1.6 Nondestructive Inspection (NDI)	5.2.6 Damage Tolerance Analysis	5.3.6 Climatic Tests	5.4.6 Force Management Database Development	5.5.6 Structural Risk Analysis Updates
5.1.7 Selection of Materials, Processes, Joining Methods, & Structural Concepts	5.2.7 Corrosion Assessment	5.3.7 Interpretation and Evaluation of Test Findings	5.4.7 Technical Orders	5.5.7 CPC Plan and Corrosion Assessment Updates
	5.2.8 Sonic Fatigue Analysis	5.3.8 Resolution of Test Findings		5.5.8 Analytical Condition Inspection
	5.2.9 Vibration Analysis			5.5.9 FSMP Updates
	5.2.10 Aeroelastic and Aeroservoelastic Analysis			5.5.10 Technical Order Updates
	5.2.11 Mass Properties Analysis			5.5.11 Repairs
	5.2.12 Survivability Analysis			5.5.12 Force Management Database Execution
	5.2.13 Design Development Tests			5.5.13 Structural Certification Updates
	5.2.14 Structural Risk Analysis			5.5.14 Economic Service Life Analysis Updates
	5.2.15 Economic Service Life Analysis			5.5.15 Others as Required

Aircraft Structural Integrity Program

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    - More data leads to better informed decisions
  - Decisions are limited – Constraints on mitigations will likely increase over time
    - Example: 15 A/C with no maintainers and planned divestment in 12-months
      - Research critical systems to maintain with minimal work and park them until divestment date
    - Example: Aircraft requires 8YC extension for flight, but permanent panel has ripples due to corrosion
      - No depot. No money for Depot Field Team. Rotate divestment schedule and retire it early

Unforeseen Challenges

- **Responsibility Absorption**
  - **Recall: The 85% of employees who left were working fulltime on tasks**
  - **Examples of tasks to be completed by 15%**
    - **ASIP manager duties**
    - **Research efforts**
    - **Engineering changes (CCB/TERB)**
  - **More meetings due to more "hats"; Think more broadly**
- **Morale**
  - **"In space, no one can hear you**
  - **A divesting platform office can b**
  - **Pro:**
    - **You can eat fish for lunch, and no one**
  - **Con:**
    - **New norms take time**
    - **Likely will move desks**

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TAKEAWAYS

- Record keeping is crucial

RECORD KEEPING IS CRUCIAL

  - Find a system
  - Own the technical baseline
  - Clean data is super important (Garbage in = Garbage out)
- Be flexible
  - You will be called on to do more
  - You will gain a multitude of skills you did not have before
- Write lessons learned as you go
  - There are no instructions for divestment

Questions?