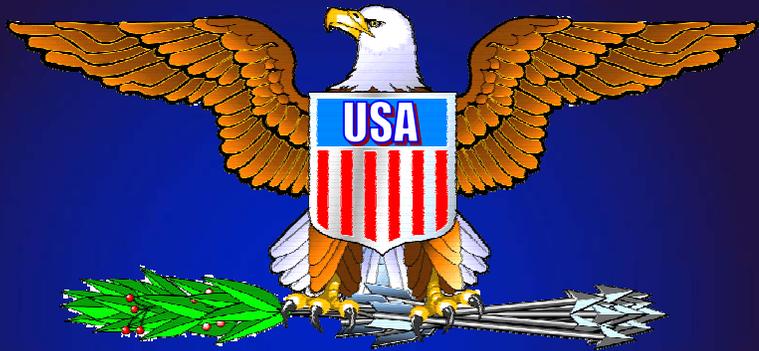


# 2003 FAA National Software Conference

## Tips For Military Programs



**Tips for Military Programs**

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### Agenda

- Background
- This Can Work!
- Gain the Right Focus
- Use Established Tools & Techniques
- Make the Contract Work for You!
- Accept What You Cannot Change
- Summary

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# 2003 FAA National Software Conference

## Tips For Military Programs

### Background

- US military is seeking equivalency to the civil standards, particularly DO-178B, in order to gain access to civil airspace during peacetime operation
- The international civil aviation community is increasing requirements for accuracy, continuity and containment in CNS equipment



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### This Can Work!

#### Use DERs

- DERs have the knowledge and experience to assist these programs
- They understand what “equivalence” is & how to develop the technical arguments supporting equivalence
- They can determine what will work and what will not

**The independent role promotes the credibility of the entire process**



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# 2003 FAA National Software Conference

## Tips For Military Programs

### Gain the Right Focus

Create the equivalent airworthiness products to promote civil agency acceptance

- Certification Plan and Summary provides the context for PSACs
- Provides focus and context for the program



– Lets everyone understand better how everything fits in

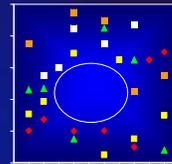
- The “trail of evidence” needed for compliance to the requirements (both certification and contract) is easier to explain and then make happen



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### Use Established Tools and Techniques

- A *gap analysis* identifies what data will work and what's missing
  - between DO-178B and mil-spec development
- A *change impact analysis* identifies the impact of a change to an existing system



- The *Job Aid* provides a documented method of establishing expected progress towards DO-178B compliance
  - Status from this should be reported to the related Engineering Review milestones
    - ◆ Requirements Review, Preliminary Design Review (PDR), etc.

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# 2003 FAA National Software Conference

## Tips For Military Programs

### Make the Contract Work for You!

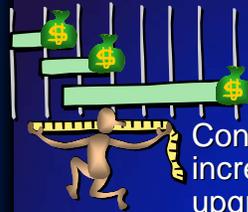
The military contract process can be an asset

- Assure in the contract that a developer has liability for correctness of their products
- Establish government audits in the Statement of Work (SOW) if the supplier data or performance is non-compliant



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### Accept What You Cannot Change.....



Congress funds military programs in incrementally, forcing completion of an upgrade of an existing aircraft into multiple phases

- The work package identified via the gap analysis/change impact analysis may need to be implemented over several update programs
- The DER assessments are *independent* of the program and contract constraints and decisions



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# 2003 FAA National Software Conference

## Tips For Military Programs

### Summary

DERs can be a positive asset to a military program certification

- Providing focus brings understanding of certification
- Use established tools & techniques
- The contract process can work *for* you
- Accept what you can't change



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### Questions?



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