

# 2003 FAA National Software Conference Commercial Derivative/Military Software



**FAA White Paper**  
*Commercial Derivative/Military  
Aviation Software*



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September, 2003  
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**Presentation Overview**

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- ☞ Status
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  - Findings
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- ☞ Summary



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## Purpose of White Paper

- Assess safety and assurance needs for Commercial Derivative/Military aviation software and create FAA vision and plan for addressing common civil and military software needs.



## FAA Team Members

- Leanna Rierson, FAA Chief Scientist and Technical Advisor, Washington D.C.
- Ken Filippelli, FAA AIR-140, Oklahoma City
- John Lewis, FAA AIR-120, Washington D.C.



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## Schedule

- Develop interview questions finished and interviews set up February 2003
- Perform interviews in March-July
- Draft and coordination of paper in August-September
- Potentially perform survey for validation of report findings at Software Conference
- Deliver paper to FAA management in September 2003

An illustration of a person in silhouette carrying a large stack of papers or a bar chart. The stack is composed of several horizontal bars of varying lengths, with the longest bar at the bottom. The person is walking towards the right, carrying the stack on their back.

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## Methodology

- Identify individuals in the FAA, Industry, and Military with software experience on commercial derivative/military certification projects
- Develop interview questions for participants
- Perform interviews via telecons or face to face
- Analyze data and determine trends/findings
- Incorporate relevant information into paper
- Potentially perform survey for validation of report findings at Software Conference



## Findings

- Difficulties in communicating with Military representatives
- Military usage of DO-178B will continue to be on a project by project basis
- Civil/Military systems safety assessment processes differ (e.g. hazard levels)
- Significant challenges with Military legacy, dead, and deactivated software
- Steep learning curve for Military usage of DO-178B (e.g. structural coverage, data and control coupling)
- Current FAA resources & processes appear to be adequate for military projects

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## Recommendations

- Continue to work with Military on a project by project basis
- Continue to monitor Military needs for usage of DO-178B



# Summary

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## Summary

- ✎ FAA White Paper represents a desire to assess and address common civil/military software requirements
- ✎ Continue to work with Military as requested
- ✎ Thank you to all of you who have participated and provided input!

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