

# **VHF Datalink (Mode 2) for Cockpit Weather for Air Transports**

*Weather Accident Prevention*

*2<sup>nd</sup> Annual Project Review*

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# VHF Datalink (Mode 2) for Cockpit Weather for Air Transports



WxAP - Weather Information Communications

Experiments



- Overall Goal/Objective:
  - Assessment of the datalink capabilities of VDLM2 for potential use in dissemination of Weather to the cockpit in 2007 based on the WINCOMM requirements. This assessment will provide characterization including identification of any gaps for potential improvements/enhancements.
- Implementation Mechanism:
  - Ongoing in-house/external effort
  - Ohio University Grant
- Technical Results to Date:
  - Ohio University Grant:
    - The emphasis of this grant was to provide characterization of the Physical and Link Layer of VDLM2. A combination of both Lab and Flight Tests were conducted. The radios generally performed as expected with minor discrepancies being noted.

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- In-House
  - An analysis of existing studies and simulations were performed looking at the full 7 Layer Stack, Application Layer to Physical Layer. Results were inconclusive due to unresolved conflicts existing between the studies and simulations.
- Future Plans:
  - Additional testing and analysis to resolve discrepancies noted in the Ohio University testing.
  - Modeling and simulation of VDLM2 to resolve conflicts identified in the existing studies and simulations analysis.
  - Performance characterization of VDLM2 in a relative environment with a representative traffic load depicting a fully loaded VDLM2 operational network.