

WIRE PERFORMANCE SPECIFICATION

FOR

AIRCRAFT ELECTRICAL SYSTEMS

Status Report to ATSRAC
08 July 2002

This work is being performed under contract to the
FAA Technical Center

GOAL

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- Develop the performance requirements for electrical interconnect wire necessary to assist the FAA to update the regulations to current standards.

TASKS

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- Identify the current requirements
 - Identify wiring related incidents and accidents
 - Analyze the mishaps for deficiencies in the wiring requirements
 - Develop the requirements for a performance based specification for electrical wiring

Task 1: Current Wire Specifications

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- Identify all current wire performance specifications for general-purpose aircraft wire
- Collect current wire specifications
 - Major Aircraft Manufacturers
 - Military Specifications
 - Wire Manufacturer's Specifications
 - Industry Standard's Bodies
 - Governing Bodies
- Review and analyze the requirements of wire

Task 2: Field Data

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- Collect field data related to electrical wiring
 - incident and accident data
 - maintenance and inspection data
 - service difficulty reports
 - other related sources

Task 3: Evaluation of Wire Specifications

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- Analyze the wire specifications and the field data
- Determine the adequacy of the specifications and
- Identify areas where the specifications may lack the actual requirement
- Identify areas where the specifications are not pertinent

Task 4: Develop Wire Performance Specification Requirements

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- Draft a Performance Specification for general purpose aircraft electrical wire

Action Items

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- Need to gather the specifications from each company
 - Survey was sent to each company requesting this information
 - Additional copies are available
- Need Field Data related to wiring
 - successes
 - deficiencies

Project Point of Contact:

Joe Kurek

Raytheon Technical Services Co.

317-306-7029

kurekj@indy.raytheon.com