Maintenance
Joint Safety Implementation Team
as Modified by JIMDAT

Implementation Plan
For
Safety Enhancement – 170R3
Aircraft Design – OEM Continuous Monitoring of Service History

Statement of Work: (SE-170)
To reduce the number of fatal accidents due to improper maintenance, and to ensure that systems continue to function as designed, OEMs should monitor service history to verify that design and procedural assumptions relating to the physical ability of maintenance personnel to perform and verify satisfactory completion of regularly scheduled maintenance tasks are acceptable. Operators should develop processes to ensure adherence to OEM-recommended maintenance procedures, or a substantiated alternative, and to report maintenance tasks performance difficulties to OEMs.

Lead Organization for Overall Safety Enhancement Completion (LOOSEC):
AIA

Safety Enhancement:
To ensure that systems continue to function as designed, OEMs should monitor service history to verify that design and procedural assumptions relating to the physical ability of maintenance personnel to perform and verify satisfactory completion of regularly scheduled maintenance tasks are acceptable. Operators should develop processes to ensure adherence to OEM-recommended maintenance procedures, or a substantiated alternative, and to report maintenance tasks performance difficulties to OEMs.

JIMDAT Score:

DIP Stand Alone Fatality Risk Reduction::
2020 - (0.42) 100% - (0.46)

Differential beyond original 46 SE CAST plan:
2020 - (0.31) 100% - (0.33)

Total Resource Requirements:

- Output 1 – estimated at 0.5 man-years
- Output 2 – estimated at 2.7 man-years
- Total Cost - $940,000

Completion Date: 42 months

Output 1:
FAA to publish guidance to provide best practices for operators and maintenance organizations to report maintenance task difficulties to the OEMs relating to the physical ability of maintenance personnel to perform, and verify satisfactory completion of, regularly-scheduled maintenance tasks.

Resources:
JMT (LOOC), AIR, AIA, AEG, OEMs, and Operators (ATA, RAA, NACA, etc.) The resource cost of this output would be mostly the individual's time from each organization involved. Initial resource estimates would be for approximately 8 people working over a 3-week period (0.5 man-years). Additional administrative time to publish guidance.

Timeline:
24 months after CAST approval
Revised at the August 2011 CAST for a 8/31/2013 due date

Actions:
1. Joint Management Team (JMT) to convene task force to review all applicable information and appropriate methodologies to accomplish Output 1 and report recommendations to the FAA.
2. FAA publishes best practices in guidance material.

Output 2:
OEMs and operators to develop processes to follow the intent of the guidance material. OEMs will incorporate reported maintenance task difficulties into their continuing airworthiness/design review processes.

Resources:
ATA (LOOC), AIA, OEMs, Operators. The cost of this output would be mostly the operators' time and to review the guidance material and perform subsequent development activities to adopt the guidance into their operation; from each of the approximately 140 operators involved. Initial resource estimates could range from one-man-day for some operators to man-month for other operators (averaging about one man-week per each of the 140 operators; 2.7 man-years).

Timeline:
12 months after completion of Output 1.
Revised at the August 2011 CAST for a 8/31/2014 due date.

Actions:
1. Operators and maintenance organizations will incorporate the best practices into their reporting processes for maintenance task difficulties.
2. OEMs will incorporate reported maintenance task difficulties into their continuing airworthiness/design review processes.

Relationship to Current Aviation Community Initiatives

Impact on Non - Part 121 or International Applications: