

1. SUMMARY

THE PURPOSE OF THIS MESSAGE IS PROVIDE AN UPDATE TO THE REFERENCE (A) MESSAGE CONCERNING THE FAA'S AGING TRANSPORT SYSTEMS PROGRAM. THIS MESSAGE ALSO INTRODUCES A NEW MEMBER TO THE FAA ADVISORY COMMITTEE.

THE RELEASE OF THIS MESSAGE HAS BEEN COORDINATED WITH BOEING. AIRBUS INDUSTRIE RECOMMENDS YOU TO DISSEMINATE THIS INFORMATION TO INTERESTED PERSONNEL AT YOUR RESPECTIVE OPERATORS.

2. ADDITIONAL PARTICIPATION

THE AGING TRANSPORT SYSTEMS RULEMAKING ADVISORY COMMITTEE (ATSRAC) RECENTLY ADDED ONE NEW MEMBER (*). THE COMMITTEE IS NOW COMPRISED OF THE FOLLOWING ORGANIZATIONS IN ALPHABETICAL ORDER:

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA (AIAA)
AIRBUS INDUSTRIE
AIR LINE PILOTS ASSOCIATION (ALPA)
AIR TRANSPORT ASSOCIATION (ATA)
ASSOCIATION OF EUROPEAN AIRLINES (AEA)
BOEING COMMERCIAL AIRPLANE COMPANY
DEPARTMENT OF DEFENSE (DOD)
EUROPEAN ASSOCIATION OF AEROSPACE INDUSTRIES (EAAI)
FAIRCHILD DORNIER (ATSRAC CHAIRMAN)
FEDERAL AVIATION ADMINISTRATION (FAA)
GENERAL AVIATION MANUFACTURERS ASSOCIATION (GAMA)
INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA)
INTERNATIONAL ASSOCIATION OF MACHINISTS (IAM)
INTERNATIONAL FEDERATION OF AIRWORTHINESS (IFA)
JOINT AVIATION AUTHORITIES (JAA)
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)
NATIONAL AIR DISASTER ALLIANCE/FOUNDATION (NADA)*
NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)
TRANSPORT CANADA

3. PRESENT TASK STATUS

AS INDICATED IN THE REFERENCE (A) MESSAGE, THE FAA'S AGING SYSTEMS PROGRAM, ADMINISTERED BY ATSRAC, IS COMPRISED OF FIVE MAJOR TASKS COLLECTING MULTIPLE SUBTASKS. THE STATUS OF EACH TASK AND SUBTASK IS PROVIDED BELOW:

TASK 1 - SAMPLING INSPECTION OF THE FLEET

THE SAMPLING PROGRAM WAS SEPARATED INTO TWO PROGRAMS, ONE NON-INTRUSIVE ON-WING WIRING SURVEY AND ONE INTRUSIVE WIRE EVALUATION WITH DETAILED LABORATORY ANALYSIS.

THE ASSIGNED TASK FORCE HAS COMPLETED AND RELEASED THE RESULTS OF THE NON-INTRUSIVE WIRING SURVEY. A TOTAL OF 3372 NOTABLE ITEMS WERE FOUND DURING THE SURVEY OF 81 AIRPLANES. NONE OF THE 3372 NOTED ITEMS WERE DETERMINED TO BE ISSUES OF AIRPLANE OR PERSONNEL SAFETY. HOWEVER, OF THESE ITEMS, 182 WERE THOUGHT TO

REQUIRE ADDITIONAL EVALUATION TO DETERMINE WHETHER FLEET ACTION WAS NECESSARY. 150 OF THE 182 ITEMS APPLY TO THE 727, 737, AND 747. DETAILED BOEING ANALYSIS AND TASK FORCE AGREEMENT FOUND THAT NONE OF THE 150 ITEMS REQUIRE FLEETWIDE ACTION IN ADDITION TO THAT ALREADY AVAILABLE TO OPERATORS. BOEING WILL BE RELEASING IN THE NEXT WEEK DETAILS OF THE ITEMS FOUND DURING THE SAMPLING INSPECTION TOGETHER WITH EXISTING RECOMMENDATIONS TO PREVENT SIMILAR CONDITIONS IN THE FUTURE.

FIVE OF THE 182 ITEMS RELATE TO THE A300. AIRBUS INDUSTRIE IS IN THE PROCESS OF DEFINING ACTIONS TO ADDRESS THE ITEMS THROUGH SERVICE BULLETINS, DOCUMENTATION REVISIONS OR ENHANCED INSPECTION REQUIREMENTS. THE PROPOSED ACTIONS HAVE BEEN REVIEWED AND AGREED BY THE RELEVANT AGING SYSTEMS TASK FORCE. AIRBUS INDUSTRIE WILL BE RELEASING BEFORE END DEC 2000 ANOTHER OPERATOR INFORMATION TELEX (OIT) TO GIVE DETAILS ON THE 5 SIGNIFICANT ITEMS AND CORRESPONDING PROPOSED ACTIONS.

THE FAA, WHO IS LEADING THE INTRUSIVE WIRING PROGRAM, AND THE INDUSTRY TEAM SUPPORTING THEM RECENTLY COMPLETED THE SIXTH AND FINAL ON-WING PORTION OF THEIR SAMPLING PROGRAM. THE PRELIMINARY RESULTS OF THE INSPECTION WERE PROVIDED TO ATSRAC IN WASHINGTON DC THE WEEK OF 9 OCTOBER, WITH FINAL RELEASE OF THE RESULTS EXPECTED IN MID-JANUARY 2001.

TASK 2 - REVIEW OF FLEET SERVICE HISTORY

THE REFERENCE (A) MESSAGE PROVIDED THE DEFINITION OF AN AGING SYSTEM AND INDICATED THAT THE REVIEW OF THE SERVICE DOCUMENTS AND SERVICE HISTORY WAS ONGOING.

A DETAILED REVIEW OF 519 DOCUMENTS APPLICABLE TO DC-8, DC-9 DC-10, 727, 737, AND 747 AIRPLANE WIRING HAS RESULTED IN 69 BOEING DOCUMENTS THOUGHT TO BE POTENTIAL SAFETY ITEMS. THE BOEING REVIEW PROCESS FOR POTENTIAL SAFETY ITEMS HAS ALREADY RESULTED IN 19 SERVICE BULLETINS BEING RELEASED AS ALERT. DETAILS OF EACH OF THE DOCUMENTS UNDER REVIEW, AND THE PROCESSES USED TO EVALUATE THEM, WILL BE INCLUDED IN THE OPERATOR CORRESPONDENCE MENTIONED ABOVE AND SCHEDULED FOR RELEASE IN THE NEXT FEW WEEKS.

A SIMILAR REVIEW WAS CARRIED OUT BY AIRBUS INDUSTRIE, OUT OF THE 52 A300 DOCUMENTS WHICH WERE CONSIDERED AS BEING RELATED TO PROBLEMS ON ELECTRICAL SYSTEMS OR INSTALLATION, 3 SERVICE BULLETINS WERE PROPOSED FOR COMPLIANCE ESCALATION FROM RECOMMENDED TO MANDATORY.

IN ADDITION 5 SERVICE BULLETINS WILL BE REISSUED WITH A RECOMMENDED COMPLIANCE INSTEAD OF DESIRABLE OR OPTIONAL. REFERENCES AND ISSUE DATES OF CORRESPONDING SERVICE BULLETINS WILL BE RELEASED VIA THE ABOVE MENTIONED OIT.

THE OEMS HAVE EXTENDED THE SERVICE HISTORY REVIEW FROM ITEMS RELATED TO AIRPLANE WIRING TO INCLUDE SINGLE-ELEMENT, DUAL LOADPATH (SE-DLP) COMPONENTS LOCATED WITHIN THE FLIGHT CONTROLS. THESE SE-DLP COMPONENTS WERE THE ONLY OTHER NON-ELECTRICAL SYSTEM IDENTIFIED AS NECESSITATING TASK FORCE EVALUATION GIVEN THE LACK OF DETAILED SERVICE KNOWLEDGE RELATIVE TO OTHER AIRPLANE SYSTEMS. THE BOEING IDENTIFICATION OF APPLICABLE SE-DLP COMPONENTS AND THEIR SERVICE HISTORY IS ONGOING BUT EXPECTED TO

BE COMPLETE BY YEAR'S END.

THE AIRBUS INDUSTRIE LIST OF A300 FLIGHT CONTROLS SINGLE ELEMENT DUAL LOADPATH COMPONENTS IS AVAILABLE. THE SERVICE HISTORY REVIEW HAS BEEN CARRIED OUT, WITH THE EXCEPTION OF SURFACE PROTECTION DEFECTS, DEGRADATION OF THE DUAL LOADPATH FEATURES HAS NOT BEEN EVIDENT DURING THE SHOP INVESTIGATION CARRIED OUT ON THE SAMPLED COMPONENTS LISTED IN THE SERVICE BULLETIN A300 05-004.

THE ADDITIONAL TASK TO REVIEW AIRLINE AND MANUFACTURER PROCESSES FOR REPORTING IN-SERVICE FAILURES MENTIONED IN REFERENCE (A) HAS BEEN REMOVED FROM THE ATSRAC TASKING STATEMENT.

THE FINAL SUBTASK UNDER TASK 2 WAS THE REVIEW OF EXISTING AIRWORTHINESS DIRECTIVES APPLICABLE TO THE AFOREMENTIONED AIRPLANE MODELS WHICH MANDATE REPETITIVE ACTIONS. ATSRAC REQUESTED THAT THESE ADS BE REVIEWED TO DETERMINE WHETHER A MANDATED CONCLUSION TO THE PERIODIC ACTIONS WAS NECESSARY. THE BOEING TASK FORCE IDENTIFIED 79 ADS WHICH HAD REPETITIVE ACTIONS WITH OR WITHOUT A TERMINATING MODIFICATION. OF THESE 79 THE BOEING TASK FORCE RECOMMENDED THAT EIGHT BE CONSIDERED FOR MANDATED TERMINATING ACTION AND ELIMINATION OF THE OPTION TO INSPECT PERIODICALLY. DETAILS OF WHICH ADS AND THE PERTINENT SERVICE DOCUMENT WILL BE PROVIDED BY BOEING IN THE FORTHCOMING CORRESPONDENCE MENTIONED ABOVE.

THE A300 ADS WERE ALSO REVIEWED ON AIRBUS SIDE, 15 OF THEM WERE IDENTIFIED AS REQUIRING REPETITIVE ACTION WITHOUT TERMINATING ACTION, NONE OF THESE 15 HAD TO BE CONSIDERED FOR MANDATED TERMINATING ACTION, HOWEVER ONE CN (FRENCH AD) SHOULD BE AMENDED TO REFLECT THE CONTENT OF THE CORRESPONDING AD.

INFORMATION REGARDING THE CN REFERENCE WILL BE GIVEN BY AIRBUS IN THE ABOVE MENTIONED OIT.

TASK 3 - IMPROVEMENT OF MAINTENANCE CRITERIA

THIS TASK AIMS AT IMPROVING GENERAL MAINTENANCE CRITERIA FOR AIRPLANE SYSTEMS TO ASSURE AGING SYSTEMS RELATED PROBLEMS ARE IDENTIFIED AND CORRECTED. THIS IS EXPECTED TO BE ACHIEVED FOLLOWING IMPLEMENTATION OF ENHANCED MAINTENANCE PROGRAM DEVELOPMENT PROCEDURES (SUBTASK 3.1), MAINTENANCE AND INSPECTION PROCEDURES AND CRITERIA (SUBTASK 3.2), PROCEDURES FOR PROTECTION OF SYSTEMS AGAINST CONTAMINATION AND ACCIDENTAL DAMAGE DURING MAINTENANCE AND OPERATION (SUBTASK 3.3), AND ENHANCEMENTS OF MAINTENANCE PROGRAMS TO BETTER ADDRESS FLIGHT CONTROLS SE-DLP DESIGN FEATURES (SUBTASK 3.4).

THE AIRBUS-LED TASK FORCE (THAT INCLUDED BOEING) HAS DEVELOPED AN ENHANCED ZONAL ANALYSIS LOGIC PROCESS THAT CAN BE APPLIED TO BOTH NEW AIRCRAFT AND IN-SERVICE AIRCRAFT TO ENSURE THAT APPROPRIATE ATTENTION IS PAID TO AGE RELATED DETERIORATION OF WIRING/ WIRING INSTALLATIONS. THEIR RECOMMENDATIONS HAVE BEEN PRESENTED AND ACCEPTED BY THE ATA FOR INCLUSION IN MSG-3 REV 2001. THIS WILL REFLECT A REVISED DEFINITION/PROCESS FOR GENERAL VISUAL INSPECTION. GUIDANCE MATERIAL HAS BEEN DEVELOPED TO SUPPORT ZONAL INSPECTION DEVELOPMENT AND ACCOMPLISHMENT. THIS INCLUDES EXAMPLES OF THE TYPES OF DISCREPANCIES THAT ARE EXPECTED TO BE FOUND AND ADDRESSED DURING SUCH INSPECTIONS.

THE TASK FORCE HAS DEVELOPED RECOMMENDATIONS TO BE FOLLOWED IN ORDER TO MINIMIZE THE POTENTIAL DETERIORATION OF WIRING INSTALLATIONS FROM THE EFFECTS OF CONTAMINATION AND ACCIDENTAL DAMAGE.

TEXT HAS BEEN WRITTEN TO ASSURE APPROPRIATE ATTENTION IS GIVEN TO FLIGHT CONTROL DUAL LOAD PATH DESIGN DURING DEVELOPMENT OF INSTRUCTIONS FOR CONTINUED AIRWORTHINESS. THIS WILL BE INCLUDED IN MSG-3 REV 2001.

FINALLY, THE TASK FORCE IS DEVELOPING GENERALIZED RECOMMENDATIONS TO INCREASE AWARENESS OF MAINTENANCE QUALITY ISSUES. THESE RECOMMENDATIONS ARE AIMED AT HIGHLIGHTING THE NEED FOR A CORPORATE CULTURE THAT PLACES ADEQUATE ATTENTION ON HOUSE KEEPING ACTIVITIES.

ALL RECOMMENDATIONS WERE PRESENTED TO ATSRAC IN OCT 2000. COMMENTS ARE NOW BEING ADDRESSED AND WILL BE INCLUDED IN THE FINAL REPORT DUE AT THE END OF DEC 2000. THE TASK FORCE IS NOW ADDRESSING THE RESULTS OF THE INTRUSIVE WIRING PROGRAM AND WILL DETERMINE THE NEED FOR ANY FURTHER ENHANCEMENTS TO MAINTENANCE PRACTICES BY YEAR END.

TASK 4 - REVIEW AND UPDATE STANDARD PRACTICES FOR WIRING

THE TASK FORCE RESPONSIBLE FOR DEVELOPING A STANDARDIZED PROCESS FOR SIMPLIFIED STANDARD WIRING PRACTICES, AND FOR DEVELOPING A TRAINING PROCESS TO EDUCATE AIRLINE PERSONNEL ON THOSE STANDARD WIRING PRACTICES HAVE COMPLETED THEIR TASKS. THE TEAM'S RECOMMENDATIONS INCLUDE:

- THE DEVELOPMENT AND RELEASE OF STANDARD WIRING PRACTICES FOR CARE AND MAINTENANCE OF WIRING SYSTEMS
- THE DEVELOPMENT AND IMPLEMENTATION OF STANDARDS FOR STRUCTURE OF THE STANDARD WIRING PRACTICES DOCUMENT
- RECOMMENDATIONS FOR INCLUSION INTO A RECURRENT WIRING-RELATED TRAINING PROGRAM.

TASK 5 - REVIEW AIR CARRIER AND REPAIR STATION INSPECTION AND REPAIR TRAINING PROGRAMS

THE TASK FORCE HAS DEVELOPED A LESSON PLAN OUTLINING SPECIFIC MODULES TO BE INCLUDED IN ANY AGING AIRPLANE WIRING COURSE. TYPICAL MODULES INCLUDE WIRE CONTAMINATION SOURCES, STANDARD WIRING PRACTICES, GENERAL VISUAL AND ZONAL INSPECTION PROCEDURES, CHARACTERISTICS AND IDENTIFICATION OF WIRE TYPES, AND SPECIAL LRU HANDLING TECHNIQUES. ALTHOUGH THE LESSON PLAN HAS BEEN TENTATIVELY ACCEPTED BY ATSRAC, IT IS PRESENTLY UNDERGOING REVIEW BY SELECTED INDUSTRY EXPERTS, AND INCLUSION OF THE RESULTS OF THE PREVIOUS FOUR TASKS, PRIOR TO FORMAL PRESENTATION TO ATSRAC. THIS TASK IS ALSO EXPECTED TO CONCLUDE IN LATE-DECEMBER 2000.

4. UPCOMING EVENTS

AS INDICATED ABOVE, A SUBSTANTIAL AMOUNT OF WORK HAS BEEN

ACCOMPLISHED BY ATSRAC AND THE INDIVIDUAL TASK FORCES, MUCH OF IT TO CONCLUDE IN THE NEXT FEW MONTHS. BOEING WILL BE PROVIDING TO AFFECTED OPERATORS IN THE NEXT FEW WEEKS THE DETAILED RESULTS OF TASKS 1 AND 2, AND WILL ALSO PROVIDE THE CONCLUSIONS FROM TASKS 3, 4 AND 5 LATER THIS YEAR. AIRBUS INDUSTRIE WILL ISSUE AN OIT BEFORE END DEC 00 TO INFORM OPERATORS ABOUT THE STATUS OF TASKS 1 TO 5. THE NEXT ATSRAC MEETING IS SCHEDULED FOR JANUARY 2001 WHERE THE CONCLUSIONS OF THE EXISTING TASKS ARE TO TAKE PLACE AND WHERE PLANS FOR IMPLEMENTATION OF THE AFOREMENTIONED TASKS ARE TO BE DEVELOPED.

5. SUMMARY

THE AGING SYSTEMS PROGRAM IS PROGRESSING AHEAD OF SCHEDULE, WITH MANY OF THE CONCLUSIONS CONCERNING THE CONDITION OF THE IN-SERVICE FLEET PRESENTLY AVAILABLE. YOU SHOULD LOOK FOR THIS DETAILED INFORMATION IN THE NEXT FEW WEEKS. THE MAJORITY OF THE REMAINING PROGRAM HAS BEEN CONCLUDED BY THE END OF OCTOBER, AND THE ENTIRE AGING SYSTEMS PROGRAM AS PRESENTLY DEFINED WILL BE COMPLETE BY YEAR'S END.

OPERATORS ARE ENCOURAGED TO REVIEW THE INFORMATION PRESENTED TO DATE ON THE AGING AIRPLANE SYSTEMS PROGRAM, AND THE FORTHCOMING TECHNICAL DATA FROM THE AIRPLANE WIRING INSPECTIONS, AND PROVIDE COMMENTS TO THE RELEVANT OEM.

BEST REGARDS,

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