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Miami, Florida, United States 4 to 7 December 2006

Agenda Item 5: Safety Oversight Developments

REPAIR STATION ASSESSMENT TOOL (RSAT)

(Presented by the United States of America)

INFORMATION PAPER

SUMMARY

Within the FAA's SMS system resides four pillars which are Policy, Safety Risk Management, Safety Assurance, and Safety Promotion. Of these four, risk management and safety assurance provide the functional core of the FAA's SMS. Risk management is the ability to identify hazards, analyze and assess risk, and then design and implement controls of those hazards and risks. In order to accomplish these three steps of risk management in the realm of repair stations, the FAA's SMS uses an instrument called the Repair Station Assessment Tool (RSAT). The RSAT will provide an overall assessment of the repair station, identify potential risk areas, and target resources for use in the areas of highest risk. Recommended action by the meeting is proposed in paragraph 4.

1. Introduction

1.1 As previously mentioned in DGCA-43/DP/XX, "United States Approach to Safety Management System (SMS) Implementation" the purpose and intent of risk management is to find the hazard, analyze and assess the risk, and then create and allocate controls and resources to mitigate them. In order to implement risk management, we need a process that the FAA calls the "Risk Management Process" (RMP). The RMP has 6 steps which are:

- Hazard Identification – "What's wrong?"
- Risk Analysis – "What could happen and why?"
- Risk Assessment – "How likely is it to happen and how bad would it be?"
- Decision-making – "What's to be done about it?"
- Implementation – "Who will do what, when, and how"
- Validation – "Did it work?"

1.2 In order to create, amend, expand, or even conclude a RMP we need an instrument or an aid to help identify areas of concern, if any, and the criticality of that area of concern, if any. This would then allow us to target our resources against the area of concern, if necessary. This is the purpose of the Repair Station Assessment Tool (RSAT). That is, it enables us to assess a repair station and then begin the RMP for issues of high concern.

2.0 **Discussion**

2.1 The RSAT is part of the FAA's Enhanced Repair Station and Air Carrier Outsourcing Oversight System. The RSAT is to be used for both evaluation assessments and surveillance planning. This tool will assist Principal Inspectors (PI) in identifying the areas of concern and the criticality of that concern, and allow us to target resources in the areas of highest risk

2.2 The first part of the RSAT is the data generated from the Baseline Repair Station Surveillance Program. This program includes 15 specific surveillance activities or inspections which constitute a complete facility inspection. Some examples of these activities are training, personnel records, tools and equipment, and technical data.

2.3 The second part merges the baseline surveillance program with other data collected by the FAA such as regulatory violations, incidents, accidents and other FAA information.

2.4 Finally, the principal inspector applies his knowledge of the repair stations design, configuration, operating environment, and his own personal experience to complete the RSAT.

2.5 The RSAT is completed at the beginning of the year to develop and plan the initial surveillance program. In addition it can be used throughout the year to determine if changes or modifications to the work program are necessary.

2.6 In order to complete the RSAT, again you take into account previous surveillance results and other information to complete the tool. The **Appendix** to this paper contains an "RSAT SAMPLE TOOL" and the letters below correspond with the letters/arrows on the sample tool.

a) This tool is comprised of 15 elements that constitute a complete facility inspection. This Column lists the numerical activity code for each of the 15 elements.
b) Short description of each of the 15 elements.
c) Number of element inspections required for the Fiscal Year (FY). One inspection is required for each repair station as determined by Repair Station Baseline Program.
d) Each of the elements is assessed using the "Element Assessment Word Pictures" (shown on the next page by arrow i).When assessing each element, consider the Repair Station Data Package (Refer to Para.2.3) and issues identified through that review. Then the PI incorporates the knowledge of the repair station and system design which includes operating environment, configuration, and design of the repair station. It should be noted that the following three elements may not be applicable to all certificate holders: Work away from station, Contract Maintenance, and Air Carrier requirements. As such, a Not Applicable (N/A) is entered for these items in the element assessment column.
e) As a result of the assessment in d) above, the PI may elect to modify the surveillance plan by adding additional inspections. Note: additional inspections should be planned for elements of concern (those with an element word picture score of seven (7) or below).

f) The number for "Total Surveillance" is obtained by adding the "Number of Inspections Required" (substep c above) and "Add Surveillance" (substep e above). This represents the total number of surveillance activities for each of the 15 elements.

g) For issues of high concern, a Risk Management Worksheet (RMW) can be created. If an RMW is to be created, the PI will write "Yes" in this column and follow the "Risk Management Process Work Instructions." The RMW is not covered in this paper.

h) The final step involves the PI assigning an overall assessment of the repair station by utilizing the "Overall Assessment Word Pictures" (shown by arrow j). When assessing the repair station, consider the Repair Station Data Package (Refer to Para 2.3), the individual element assessments and system design including operating environment, configuration, and design of the repair station.

3. Conclusion

3.1 The RSAT will not only assist the PI but other assigned inspectors, supervisors, and managers in identifying areas of concern and then target resources in the areas of the highest risk. This tool can also be used to compare one repair station to another or to a group of repair stations. The RSAT provides a standardized, system safety approach to repair station surveillance.

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APPENDIX

RSAT SAMPLE TOOL

Element		Number of Inspections Required	Element Assessment (Select 1 to 10)	Add Surveillance (P Items)	Total Surveillance	Create RMW (Yes or No)
Item	Description					
1	Certificate Requirements	1				
2	Records Systems	1				
3	Manuals	1				
4	Housing and Facilities	1				
5	Technical data	1				
6	Tools and equipment	1				
7	Parts and Materials	1				
8	Personnel record	1				
9	Training	1				
10	Maintenance Process"	1				
11	Work away from station*	1				
12	Quality control	1				
13/14	Contract Maintenance non certificated and certificated*	1 1				
15	Air Carrier requirements*	1				
	Overall Assessment of this Repair Station					

Element Assessment Word Picture

Score	Word Picture
1 to 2	It appears that the certificate holder is not meeting the requirements of this element. Documentation and controls seem to be missing.
3 to 5	It appears that the certificate holder is meeting the requirements for this element and is adequate, appropriate, and maintained. Documentation and controls seem to be deficient.
6 to 7	It appears that the certificate holder is meeting the requirements for this element and is adequate, appropriate, and maintained. An adequate control system seems to be in place but some discrepancies were noted and corrected.
8 to 9	It appears that the certificate holder is meeting the requirements for this element and are adequate, appropriate, maintained, documented, and controlled. No deficiencies were observed.
10	It appears that the certificate holder is meeting the requirements for this element and seems to be well above the minimum industry standards.
N/A	This element is not applicable to this repair station. (Option only applicable with elements with *)

Overall Assessment Word Pictures

Score	Word Picture
1 to 2	There appears to be little or no evidence of a credible process being in place and/or facilities seem to be inadequate.
3 to 5	It appears that the processes and facilities are adequate, appropriate, and maintained. Documentation and controls seem to be deficient.
6 to 7	It appears that the processes and facilities are adequate, appropriate, and well maintained. An adequate control system seems to be in place but some discrepancies were noted and corrected.
8 to 9	It appears that the processes and facilities are adequate, appropriate, well maintained, documented, and controlled. No deficiencies were observed.
10	It appears that the processes and facilities are well above the minimum industry standards.

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