SE 27

Loss of Control
Joint Safety Implementation Team

Implementation Plan
For
Policies and Procedures - Risk Assessment and Management

Statement of Work: (SE-27)

The purpose of this project is to identify or develop and implement methods for operators, regulators, and manufacturers to prioritize safety related decisions. The project will improve methods of risk assessment for operational issues related to service bulletins, aircraft accident/incident analysis, flight critical safety information, and recurring intermittent failures related to dispatch.

Lead Organization for Overall Project Coordination (LOOPC):
ASY

Safety Enhancement:

Aviation safety will be improved through the use of risk assessment/management methods.

Score: 2007-(12.3) 2020-(12.3) 100%-(14.5)

Resource Requirements: The resources required for this project will be:

- 4 man-years funded by each organization involved in the development and implementation of the risk assessment/management information.
- Approximately $150,000 for administrative costs.

Completion Date: 3 years

Note: FAA, in agreement with ATA, CAST, and AFS-200, will complete the measurement portion of this plan (Output 3) utilizing their POI's/ PMI's during normal work program functions.

Output 1:

Compile and assess guidance materials related to risk assessment and risk management tools to prioritize safety related decisions for operational issues regarding service bulletins, aircraft accident/incident analysis, flight critical safety information, and recurring intermittent failures related to dispatch.

Resources: (ASY) (LOOC), FAA, Flight Safety Foundation, CAMI, ATA, AIA, DOD, and ALPA. The resources required for this output will be mainly limited to the man hours funded by each organization involved in the identifying and distribution of the essential operating information. Using a team of 10 individuals for one week per month, a total of approximately 1 3/4 man-years will

be needed to compile and assess the information. Also an administrative cost of approximately $60,000 will be needed for meeting rooms and incidental expenses of the meetings.

Timeline: 12 months

Actions:

1. ASY should survey various industry and DOD entities to determine risk assessment and risk management material available.
2. ASY should gather the available risk resource material (i.e. Advisory Circular (AC) 39xx, Part 25 risk information, and ALAR risk assessment).
3. ASY should lead an industry-government team to assess the material for applicability and utility.

Output 2:

Based on the assessment from Output 1, develop guidance materials for operators, regulators, and manufacturers on risk assessment and risk management tools to prioritize safety related decisions for operational issues.

Resources: ATA (LOOC), RAA, FSF, NACA, labor unions, AIA, manufacturers, FAA, MOT of Canada, and Air Transport Association of Canada. The resources required for this output would be limited to the man-hours funded from each organization and administrative costs:

- Action 1 - Using a team of 10 individuals for one week per month, a total of approximately 1 3/4 man-years will be needed to develop the guidance. Also an administrative cost of approximately $60,000 will be needed for meeting rooms, equipment, and incidental expenses of these meetings.
- Action 2/3 - The FAA personnel costs to produce the AC and HBAT will be funded through normal methods and require approximately ½ man-year to produce. The cost to publish these documents will be absorbed by the normal document distribution process.

Timeline: 12 months after compilation of industry material in Output 1.

Actions:

1. ASY (with assistance from FSF, ATA and FAA) should combine material from Output 1 into risk assessment tools.
2. AFS-200 should publish the risk assessment tools in an AC for operators.
3. AFS-200 should develop and publish a Handbook Bulletin Air Transportation (HBAT) for FAA inspectors' guidance on risk assessment tool usage.

Output 3:

Operator, regulator, and manufacturer Directors of Safety (DOS), or equivalents, should ensure all appropriate managers implement and use risk assessment tools to prioritize safety related decisions developed in output 2.

Resources: ATA (LOOC), RAA, NACA, labor unions, AIA, manufacturers, FAA, MOT of Canada, and Air Transport Association of Canada. After an initial meeting of all DOS's, or

equivalents, to explain the program and risk assessment tools, an oversight team of 3 individuals should be formed. This oversight team will meet quarterly for the first year to clarify the principles and intent of a flexible risk assessment program. A total resource cost of approximately 1/2 man-year will be needed to assist in the implementation of the program. Also an administrative cost of approximately $30,000 will be needed for meeting rooms and incidental expenses of the meetings.

Timeline: 12 months.

Actions:

1. DOS's, or equivalents, working through senior management, should apply the principles contained in the AC to training programs and manuals used by operations and maintenance staff.

2. DOS's, or equivalents, should report to the respective industry association periodically, or to their CAST representative until all elements of the risk assessment and management program are implemented.

Relationship to Current Aviation Community Initiatives:

The following documents and organizations provide information to the aviation industry on the design and establishment of risk assessment management tools.

- MIL-STD-882D, Department of Defense Standard Practice for System Safety, dated 10 February 2000
- AF PAMPHLET (AFPAM) 90-902 Operational Risk Management (ORM) Guidelines and Tools. This pamphlet is the process for the US Air Force Operational Risk Management Program as prescribed by AFPD 90-2, Operational Risk Management. AFPAM 90-902 provides the definitions, guidelines, procedures and tools for the integration and execution of ORM. It has application and use for all US Air Force organizations and personnel
- Resources from Transportation Safety Institute
- American Airlines Risk Management program
- AC 139.xx, Part 25 Risk Assessment
- ALAR Risk Assessment process

Performance Goals & Indicators for Safety Enhancement/Outputs:

- Safety Enhancement Goal: Develop and implement risk assessment and management methods to prioritize safety related decisions.
  Indicator: Reduction in accidents related to operational risk factors.

- Output 1 Goal: Compile and assess guidance materials related to risk assessment and risk management tools to prioritize safety related decisions for operational issues.

  Indicator: Applicable risk assessment and management information is compiled.

- Output 2 Goal: Develop guidance materials for operators, regulators, and manufacturers on risk assessment and risk management tools to prioritize safety related decisions for operational issues.

Indicator: Guidance material is developed.

- Output 3 Goal: Operator Directors of Safety, or equivalents, should ensure all appropriate managers implement and use the risk assessment tools to prioritize safety related decisions developed in output 2.

  Indicator: Operators, regulators, and manufacturers implement the risk management material.

Programmatic Approach:

Organizational Strategy

The LOC JSIT has identified ASY as the LOOPC organization. The LOOC's are identified in each output of this Implementation Plan. The roles and responsibilities of the LOOPC and LOOC are described in the CAST approved JSIT Process Document. ASY will provide the project lead for the Risk Assessment and Management Project. ASY will work with the various carriers and labor unions, FSF, manufacturers, principle operations inspectors (POI), and others to create a set of risk assessment guidelines. The project lead will coordinate the activities outlined in the implementation plan, and will provide progress reports, when requested, to the CAST. Implementation of this product is a shared responsibility between the FAA, air carriers, manufacturers and labor unions.

Implementation Activities

ASY should establish a working group of knowledgeable stakeholders to coordinate the collection and assessment of available risk assessment and management information. The FSF (with assistance from ATA and FAA) should then establish a working group to develop this information into guidance material for the industry. AFS-200 should then develop and publish an AC and an HBAT to use as guidance in the implementation and integration of the risk management tools to prioritize safety related decisions. This project should encourage air carriers to establish risk assessment and management programs under the company DOS. The LOOPC will also have oversight into the research outputs of this project if needed.

Key Products and Milestones:

The following milestones are based on the date of CAST "G" approval:

Products	LOOC	Milestone
• Collect, analyze, and assess existing risk management programs	ASY	G + 12 mo
• Develop risk management methods to prioritize safety related decisions	ATA	G + 24 mo
• Operators implement the use of risk management methods	ATA	G + 36 mo

Risk Description:

Low-Medium Risk. The collection of risk management information and its development into a user-friendly industry guide is relatively low risk. This information will provide a good basis to develop a risk program in a company that does not have one established. Additionally companies that already have a risk program and may not want to spend the resources to change it to conform to the new guidance. Also, some organizations do not embrace the concept of risk management as necessary and cost effective. Since the risk guidance is not immediately operationally apparent and is voluntary, some organizations may not see the long term cost savings.

Risk Mitigation Plan:

Since some manufacturers and air carriers presently use some form of risk management in their operations, the long-term value to these organizations should be stressed and promoted. A positive, close, cooperative effort between the FAA and industry organizations could help achieve widespread implementation of risk management programs. These programs would be an additional tool for air carrier operations and maintenance departments is use in making safety related decisions.

Impact on Non - Part 121 or International Applications:

This project could have a positive impact on non-Part 121 commercial, international, and corporate operations. The risk management tools developed in this project could be tailored to all operational situations and could be a method to assist in prioritizing safety rated decisions. The development of these processes could be a joint effort with foreign authorities and organizations and would be applicable to their operations.