

SOUTHERN ILLINOIS AIRPORT GAP ANALYSIS

The following gap analysis was constructed following interviews with airport personnel and an exhaustive review of literature, including: Airport Certification Manual (FAA Part 139), Southern Illinois Airport (SIA) Certification Manual, SIA Safety Manual, FAA Advisory Circular (AC) 120-92, FAA AC 150-5200-37, Airport Cooperative Research Program (ACRP) Report 1: Safety Management Systems (SMS) for Airports, International Civil Aviation Organization (ICAO) Safety Management Manual, and Transport Canada AC 300-002.

These interviews and documents were used to establish benchmarks associated with the existing safety climate at SIA.

COMPONENT 1: SAFETY POLICY

Element 1.1: Safety Policy

1. Is an SMS with defined components established, maintained and adhered to?

Status: Unsatisfactory. An SMS is not in place.

Action Needed: An SMS must be developed.

2. Is the SMS appropriate to the size and complexity of the organization?

Status: Unsatisfactory. An SMS program is not in place.

Action Needed: An SMS must be developed that is appropriate in size and scope to SIA.

3. Is there a safety policy in place?

Status: Unsatisfactory. One exists, but, not in SMS format. It is outlined in the SIA Safety Manual. However, the manual was developed to comply with workmen's compensation directives and requires revision to reflect SMS policies.

Action Needed: New Safety Policy Statement with SMS components

4. Is the safety policy approved by the accountable executive?

Status: Satisfactory. The existing safety policy is approved by the airport manager and the SIA airport authority.

5. Is the safety policy reviewed periodically?

Status: Unsatisfactory. The safety policy does not undergo formal, periodic review.

Action Needed: A formal, periodic review schedule must be established.

6. Is the safety policy communicated to all employees, with the intent to make them aware of their individual safety obligations?

Status: Unsatisfactory. Personnel assigned to potentially hazardous positions, e.g. flight line personnel, receive safety training related to their specific function.

Action Needed: An SMS indoctrination and recurrent training program must be developed for all airport personnel.

Element 1.2: Non-Punitive Reporting Policy

1. Is there a policy in place that provides immunity from disciplinary action for employees who report safety deficiencies, hazards or occurrences?

Status: Unsatisfactory. A non-punitive reporting policy is not in place.

Action Needed: A non-punitive reporting policy must be developed.

Element 1.3: Roles, Responsibilities and Employee Involvement

1. Has an accountable executive been appointed with responsibility for ensuring that the SMS is properly implemented and performing to requirements in all areas of the organization?

Status: Satisfactory. The airport manager will oversee the development and implementation of the SMS.

2. Does the accountable executive have control of the financial and human resources required for the proper execution of their SMS responsibilities?

Status: Satisfactory. The airport manager has the responsibility to oversee fiscal and human resource issues associated with the execution of SMS responsibilities.

3. Has a qualified person been appointed to manage the operation of the SMS?

Status: Satisfactory. The airport manager will manage the SMS. The airport manager has indicated that the employment of a safety officer may be required to manage the implementation and oversight of SMS.

4. Are the safety-related responsibilities of personnel at all levels of the Airport Authority defined and documented in an organization chart?

Status: Unsatisfactory. Responsibilities not defined.

Action Needed: Safety-related responsibilities must be defined for top management, safety manager, department heads/managers, established safety committees and chairpersons.

5. Is the SMS plan fully integrated into the operation of the airport?

Status: Unsatisfactory. There is currently no SMS plan.

Action Needed: Once it is created, a description of how to fully integrate the SMS into the operation of the airport needs to be provided.

Element 1.4: Safety Planning, Objectives and Goals

1. Have measurable safety objectives been established?

Status: Unsatisfactory. Measureable safety objectives have not been established.

Action Needed: Measurable safety objectives require development.

2. Is a formal process used to develop a coherent set of safety objectives?

Status: Unsatisfactory. A formal process is not in place.

Action Needed: A formal process requires development.

3. Are measurable safety objectives publicized and distributed?

Status: Unsatisfactory. Measureable safety objectives are not in place.

Action Needed: Safety objectives require increased communication.

Element 1.5: Management Review

1. Are regular and periodic reviews of the organization's safety performance conducted to ensure its continuing suitability, adequacy and effectiveness?

Status: Unsatisfactory. Periodic reviews are conducted as required by FAR Part 139 and Workmen's Compensation, but not with respect to SMS.

Action Needed: Formal SMS performance reviews require establishment.

2. Is there a process to evaluate the effectiveness of corrective actions?

Status: Unsatisfactory. An evaluation process is not in place.

Action Needed: An evaluation process requires development.

Element 1.6: Identification and Maintenance of Applicable Regulations

1. Are regulations and standards periodically reviewed to ensure that the most current information is available?

Status: Satisfactory. Regulations and standards are reviewed upon notification of FAA updates or modifications.

Element 1.7: Records Management

1. Does the organization have a records system that ensures the generation and retention of all records necessary to document and support operational requirements, and is in accordance with applicable regulatory requirements?

Status: Satisfactory. SIA maintains personnel training and medical records IAW Illinois Department of Labor Standard 29 CFR 1910.20.

2. Does the system provide the control processes necessary to ensure appropriate identification, storage, protection, archiving, retrieval, retention time, and disposition of records?

Status: Satisfactory. Records maintained by the SIA administrative assistant

3. Is there a process in place that outlines how safety risk management documents are managed?

Status: Unsatisfactory.

Action Needed: A process must be developed to manage safety risk management documents.

COMPONENT 2: RISK MANAGEMENT

Element 2.1: Processes

1. Is there a description of the safety risk management (SRM) process, including application of the “Five Phases of SRM as discussed in AC 150/5200-37?

Status: Unsatisfactory. There is not a current SMS plan in place.

Action Needed: Provide a description of the SRM process including application of the “Five Phases of SRM as discussed in AC 150/5200-37.

2. Is there a structured process for the assessment of risk associated with identified hazards, expressed in terms of severity, level of exposure and probability of occurrence?

Status: Unsatisfactory. A risk management process not in place.

Action Needed: A SRM process must be developed.

3. Are there criteria for evaluating risk and the tolerable level of risk the organization is willing to accept?

Status: Unsatisfactory. A SRM process not in place.

Action Needed: Criteria for evaluating risk are required.

4. Does the organization have risk control strategies that include corrective and preventive action plans to prevent recurrence of reported occurrences and deficiencies?

Status: Unsatisfactory. A SRM process not in place.

Action Needed: A SRM process must be developed.

5. Does the organization have a process for evaluating the effectiveness of the corrective and preventive measures that have been developed?

Status: Unsatisfactory. A follow-up process is not in place.

Action Needed: A follow-up process must be developed.

6. Are corrective and preventive actions, including timelines, documented?

Status: Unsatisfactory. Documentation of corrective and preventative actions is not in place.

Action Needed: A documentation process must be developed.

7. Is there a process in place to monitor and analyze SRM related trends?

Status: Unsatisfactory. A process is not in place.

Action Needed: Develop a SRM trend analysis process.

Element 2.2: Reporting Systems

1. Does the organization have a safety reporting system for the identification of hazards, incidents and other data relevant to SMS?

Status: Unsatisfactory: A safety reporting system is outlined in the SIA Safety Manual. However, the system requires modification to reflect SMS.

Action Needed: Modify safety reporting system to reflect SMS principles.

2. Is the safety reporting process simple, accessible and commensurate with the size of the organization?

Status: Unsatisfactory: The safety reporting system is entirely verbal and, if not brought to the direct attention of the SIA Manager, is provided to him through verbal channels.

Action Needed: Develop a formal, simple, accessible safety reporting process.

3. Are safety reports reviewed at the appropriate level of management?

Status: Unsatisfactory: The SIA Manager advises that safety issues rise to his level regardless of their perceived impact upon of safety. However, since a nonverbal, documented safety reporting process is not in place this area is identified as unsatisfactory.

Action Needed: Develop a formal, simple, accessible safety reporting process that ensures management review.

4. Is there a feedback process to notify contributors that their reports have been received, and to share the results of the analysis?

Status: Unsatisfactory: The SIA Manager reports that safety reporting process is entirely verbal, however, feedback is regularly provided to those that initiate a report.

Action Needed: Develop a formal, simple and accessible safety reporting process that ensures feedback from management.

5. Is there a process in place to monitor and analyze safety trends?

Status: Unsatisfactory: The SIA Manager reports that a trend analysis program is not in place.

Action Needed: Develop a safety trend analysis tool/program.

6. Are corrective and preventive actions generated in response to hazard analysis?

Status: Unsatisfactory: The SIA Manager reports that problems are dealt with on a per issue basis. The process is more reactionary rather than preventative.

Action Needed: Develop a formal, simple and accessible safety reporting process that ensures corrective and preventive actions are generated in response to reported hazards and hazard analysis.

8. Is a process in place for analyzing changes in operations for hazards?

Status: Unsatisfactory. An analytical process is not in place.

Action Needed: Develop an analytical process.

COMPONENT: 3 SAFETY ASSURANCE

Element 3.1: Safety Audits

1. Does the organization conduct internal reviews and audits of its safety processes, procedures, analyses and training?

Status: Unsatisfactory: A self-inspection program exists and is outlined in the SIA Certification Manual. However, the focus of the program appears to be on daily operational inspections.

Action Needed: The development of a comprehensive internal safety audit program.

2. Does the organization conduct external reviews and audits of its safety processes, procedures, analyses and training?

Status: Unsatisfactory. The airport is audited by the FAA and Workmen's Compensation representatives. However, reviews of safety specific functions by external parties are not conducted.

Action Needed: Create a safety-specific audit process.

3. Does the organization have a system to monitor the safety audit process and the completion of corrective actions?

Status: Unsatisfactory: Audits of safety specific functions by external parties are not conducted.

Action Needed: Develop procedures that monitor the safety audit process and the completion of corrective actions.

4. Are audit scope, criteria, frequency and methods defined?

Status: Unsatisfactory: A self-inspection program exists and is outlined in the SIA Certification Manual. However, the focus appears to be on daily operational inspections rather than scheduled, periodic inspections of airport safety components.

Action Needed: A process that outlines safety audit scope, criteria, frequency and methods requires development.

5. Is there a procedure for reporting safety audit results and maintaining records?

Status: Unsatisfactory. A safety-specific audit program does not exist.

Action Needed: A procedure for reporting safety-specific audit results and maintaining records is required.

6. Is there a procedure outlining requirements for timely corrective and preventive action in response to safety audit results?

Status: Unsatisfactory. A safety-specific audit program does not exist.

Action Needed: A procedure outlining requirements for timely corrective and preventive action in response to safety audit results is required.

7. Is there a process in place for auditing ramp safety at SIA?

Status: Unsatisfactory. Currently, the Airport Authority follows safety management and reporting practices under FAR 139 and also reports any ramp aircraft accidents to the National Transportation Safety Board or the Flight Standards District Office of the Federal Aviation Administration. A proactive ramp safety program that includes tenant participation and review (perhaps via a new safety committee) does not yet exist.

Action Needed: Propose a new, proactive, ramp safety program at SIA as part of the SMS plan.

Element 3.2: Emergency Preparedness and Response

1. Does the organization have an emergency preparedness procedure appropriate to the size, nature and complexity of the organization?

Status: Satisfactory. Emergency preparedness procedure is outlined in the SIA Certification Manual.

2. Have the emergency preparedness procedures been documented, implemented and assigned to a responsible manager?

Status: Satisfactory. Emergency preparedness procedures are outlined in the SIA Certification Manual, implemented and assigned to the airport manager

3. Have the emergency preparedness procedures been periodically reviewed as a part of the management review and after key personnel or organizational changes?

Status: Unsatisfactory. Periodic review is not conducted. Procedures are reviewed during Part 139 manual updates.

Action Needed: Scheduled and periodic review procedure requires development.

4. Does the organization have a process to distribute the emergency response plan (ERP) procedures and to communicate the content to all personnel?

Status: Satisfactory. Distribution list is available.

5. Has the organization conducted drills and exercises with all key personnel at intervals defined in the approved control manual?

Status: Satisfactory. Actual drills are conducted tri-annually and tabletop drills are conducted annually. The Airport Authority, in conjunction with local emergency responders, conducted a full scale test of the emergency response plan for SIA in October, 2006.

6. Does the airport have a phone tree for the notification of airport employees and tenants of an impending or existing emergency safety situation at the airport?

Status: Unsatisfactory. No phone tree exists according to the airport manager.

Action Needed: Create a phone tree that can be activated by the airport manager's office in the event of an emergency.

7. Is there an existing ground evacuation plan for the airport?

Status: Unsatisfactory. One does not exist according to the airport manager.

Action Needed: Create a ground evacuation plan for SIA so that the occupants of each building know in advance how they are supposed to exit the airport in an emergency.

Element 3.3: Investigation and Analysis

1. Are there procedures in place for conducting accident/event investigations?

Status: Unsatisfactory. Investigative procedures currently in place apply to only FAR Part 139 issues. Additional investigative processes are informal.

Action Needed: Create a comprehensive accident/event investigation process applicable to safety issues beyond the boundary of FAR Part 139.

2. Do measures exist that ensure all reported occurrences and deficiencies are investigated?

Status: Unsatisfactory: A formal investigative process is not in place.

Action Needed: Create a formal investigative process that addresses this issue.

3. Is there a process to ensure that occurrences and deficiencies reported are analyzed to identify contributing and root causes?

Status: Unsatisfactory: An analytical process does not exist.

Action Needed: Develop an analytical process.

4. Are corrective and preventative actions generated in response to accident/event investigation and analysis?

Status: Unsatisfactory: Corrective and preventative actions are performed following an FAR Part 139 accident/event investigation. However, a formal process is not in place for other than FAR Part 139 accidents/events.

Action Needed: Create a formal investigative process for other than FAR Part 139 accidents/events.

COMPONENT 4: SAFETY PROMOTION

Element 4.1: Communication

1. Are there communication processes in place within the organization that allow the SMS to function effectively?

Status: Unsatisfactory. Processes exist in the SIA Safety Manual and Flying Safety Meetings. However, increased communication processes must be developed.

Action Needed: Develop communication processes that will allow the SMS to function effectively.

2. Does a formal airport safety committee exist at the airport?

Status: Unsatisfactory. The airport manager reported that the airport safety committee is composed of all airport employees. However, this committee does not meet regularly and does not have any committee by-laws or operating principles.

Action Needed: Examine the possibility of forming two safety committees. One for the Airport Authority to address internal safety/SMS matters and one used to interact with airport tenants (almost 70 tenants).

3. Are communication processes (written, meetings, electronic, etc.) commensurate with the size and scope of the organization?

Status: Unsatisfactory. Additional communication venues must be developed.

Action Needed: Identify and utilize additional communication venues.

4. Is there a process for the dissemination of safety information throughout the organization?

Status: Unsatisfactory. A process of dissemination is discussed in the SIA Safety Manual. However, the process requires modification to reflect SMS philosophies.

Action Needed: Develop a dissemination process that reflects SMS concepts.

5. Does the organization have a safety award program in place?

Status: Satisfactory. A safety award program is outlined in the SIA Safety Manual.

Element 4.2: Training, Awareness and Competence

1. Does the airport have a formalized safety-oriented training plan that addresses safety indoctrination for new employees as well as continuing safety education of existing employees?

Status: Unsatisfactory. There is a training plan, but, it is informal (not written) and needs to be formalized.

Action Needed: A formal training plan needs to be written for SIA employees, one for new employee indoctrination and one for the continuing safety education of existing employees.

2. Is there a formal process for systems safety management training (e. g., indoctrination on the basic SMS process, pillars and goals?).

Status: Unsatisfactory. There is no SMS plan in place.

Action Needed: Create a formal process for SMS training for employees and tenants including a plan to validate the training and provide feedback to participants.

3. Is the organization's safety management training incorporated into indoctrination training upon employment?

Status: Unsatisfactory. Some airport personnel, e.g. maintenance and security police, receive safety training specific to their function. However, comprehensive SMS training is not provided to all airport employees.

Action Needed: Provide comprehensive SMS training to all employees during indoctrination training.

4. Is there emergency preparedness and response training for affected personnel?

Status: Satisfactory. Emergency preparedness and response training is outlined in the SIA Certification Manual.

5. Is there a driver training program for airport employees and non-airport employees who drive on the Airport Operations Area (AOA)?

Status: Unsatisfactory. A driver training program does not exist, according to the airport manager.

Action Needed: Create a driver training program for all airport and non-airport employees who drive on the Airport Operations Area (AOA).

6. Does the airport have a formal snow removal driver training plan?

Status: Unsatisfactory. A formal, written snow removal driver training plan was not provided in the available literature.

Action Needed: Create a formal snow removal driver training program for SIA.

7. Is there a formal aviation safety inspection training plan for airport employees who do the daily airport operations safety inspection of the airport?

Status: Unsatisfactory. The literature provided by the airport authority did not mention a formalized aviation safety inspection training plan for airport employees who do the daily airport operations safety inspections.

Action Needed: Create an aviation safety inspection training plan for airport employees who perform daily airport operations safety inspection.

8. Are non-airport personnel, e.g. construction contractors, farmers, etc. trained on the hazards associated with performing their functions in the airport environment?

Status: Unsatisfactory. According to the airport manager this area requires attention.

Action Needed: Create a training program to address this issue and develop a requirement for non-airport personnel engaged in activities on the airport to attend a training session.

Element 4.3: Relationships

1. Is there an adequate relationship with the FAA?

Status: Unsatisfactory. Relationship with FAA Area District Office (ADO) requires strengthening.

Action Needed: Increase communication and strengthen relationship with FAA ADO.

2. Is there an adequate relationship with state and local safety offices?

Status: Unsatisfactory. Increased cooperation needed between airport and state agencies on safety issues.

Action Needed: Communicate expectations to airport and state agencies.

3. Is there an adequate relationship with local air traffic control agencies?

Status: Satisfactory. Strong relationship exists with the local ATC facility. Open communication and letters of agreement in place.

4. Is there an adequate relationship with other regional airports?

Status: Satisfactory. Airport is well respected and maintains a strong relationship with other regional airports.

5. Is there an adequate relationship with military air traffic control agencies, if applicable?

Status: Not Applicable. Airport is not involved in military operations in any capacity.

6. Is there an adequate relationship with state aviation authorities?

Status: Satisfactory. Airport has an excellent relationship with state authorities.