

**ORDER**

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

7210.58

6/30/99

**SUBJ: NATIONAL RUNWAY SAFETY PROGRAM**

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- 1. PURPOSE.** This order establishes policies and procedures and assigns responsibilities for the administration and operation of the Federal Aviation Administration (FAA) National Runway Safety Program (NRSP).
- 2. DISTRIBUTION.** This order is distributed to the branch level in Washington and regional Air Traffic, Flight Standards, and Airport Safety and Standards offices, the Office of System Safety, Office of Civil Aviation Security Policy and Planning, Office of Communication, Navigation, and Surveillance Systems, Office of System Architecture and Investment Analysis, and a limited distribution to all air traffic field offices and facilities, Flight Standards District Offices, and Airport District Offices, the William J. Hughes Technical Center.
- 3. BACKGROUND.** Air Traffic Services assumed responsibility for management of the Runway Safety Program, ATO-102, in October 1996. Since that time, numerous projects have been initiated to reduce the increasing number of runway incursions (RI) and prevent accidents attributable to RI's. These projects can be grouped into three specific areas: technological, procedural, and educational.
- 4. SCOPE.** This order will formalize program processes required to achieve the FAA's goal of reducing RI's and preventing accidents attributable to RI's. While technology, procedures, and education are necessary ingredients in RI mitigation, it is imperative that a process be developed that continues to focus on the problem from national, regional, and facility levels. This architecture will provide the vehicle to accomplish just that, thereby establishing a proactive approach to the elimination of RI's.
- 5. DEFINITIONS.** The following definitions are for the purpose of this order only:
  - a. **Aircraft Incident.** An occurrence, other than an accident, associated with the operation of an aircraft that affects or could affect the safety of operations.
  - b. **Aircraft Intending to Land.** An aircraft that has been cleared to land by air traffic control (ATC), but has not crossed the landing threshold.
  - c. **Aircraft Intending to Take Off.** An aircraft that has been cleared for takeoff by ATC which has entered the runway, but has not commenced takeoff roll.
  - d. **Aircraft Landing.** An aircraft that has crossed the landing threshold with or without ATC clearance.



e. Aircraft Taking Off. An aircraft in the process of rolling down the runway for departure with or without ATC takeoff clearance.

f. Collision Hazard. Any condition, event, or circumstance which could induce an occurrence of a collision or surface accident or incident (e.g., a pilot takes an unplanned or evasive action to avoid an aircraft, vehicle, object, or person on the runway).

g. Loss of Separation. As defined in Order 7110.65, an occurrence or operation, which results in less than the prescribed separation between aircraft, vehicles, or objects.

h. Operational Error (OE). A loss of separation as defined in Order 7210.56A.

i. Order of Significance. A number determined by multiplying the total number of runway incursions by the calculated RI rate.

j. Pilot Deviation (PD). The actions of a pilot that result in the violation of Title 14 of the Code of Federal Regulations or a Federal Aviation Regulation.

k. Regional Runway Safety Representative (RRSR). A regional Air Traffic (AT) representative designated by the respective regional Air Traffic Division (ATD) manager to fulfill the responsibilities set forth in this order.

l. Runway Incursion. Any occurrence at an airport involving an aircraft, vehicle, person, or object on the ground that creates a collision hazard or results in a loss of separation with an aircraft taking off, intending to take off, landing, or intending to land.

m. Runway Incursion Action Team (RIAT). A team consisting of FAA and industry experts that conduct on-site evaluations at airports experiencing an unusually high incidence of RI's or related surface incidents (SI).

n. Runway Incursion Leadership Team (RILT). A multi-organizational, cross-functional team which provides focus and oversight for accomplishing goals identified in the 1998 Airport Surface Operations Safety Action Plan and various other surface safety initiatives.

o. Runway Incursion Rate. A rate determined by dividing the total number of RI's for a specified time period by the total number of facility operations for the same time period.

p. Surface Incident Prevention Plan (SIPP). A comprehensive, site-specific action plan that addresses the prevention of RI's and related SI's.

q. Surface Incident Prevention Team (SIPT). A proactive facility level mitigation team that addresses airport-specific RI and surface error/incident issues. The SIPT framework is very similar to the RIAT's framework, except it is formed and performed at the facility level.

r. Surface Incident. Any event where unauthorized or unapproved movement occurs within the movement area or an occurrence in the movement area associated with the operation of an aircraft that affects or could affect the safety of flight. SI's result from PD's, OE's, vehicle or pedestrian deviations (V/PD), or operational deviations.

s. Vehicle/Pedestrian Deviation. Any entry or movement on the runway movement area by a vehicle or pedestrian that has not been authorized by ATC (includes aircraft operated by non-pilots).

**6. RESPONSIBILITIES.** Responsibility for, and the implementation of, the NRSP is assigned to the following officials:

a. The Program Director for Air Traffic Operations, ATO-1, shall:

- (1) Provide overall direction of ATO-102.
- (2) Support goals, objectives, and actions identified in the 1998 Airport Surface Operations Safety Action Plan and the associated Program Implementation Plan (PIP).
- (3) Provide, as required, division level participation in the RILT.
- (4) Ensure adequate NRSP staffing and resources required for administering tasks commensurate with established program responsibilities.

b. The Runway Safety Program Manager, ATO-102, under the direction of the Manager, En Route/Terminal Operations and Procedures Division, ATO-100, shall:

- (1) Provide oversight for the development and implementation of requirements of the NRSP. Said oversight will be conducted in coordination with the appropriate FAA headquarters, regional, and facility offices, as the actions pertain to their respective responsibilities relating to the NRSP.
- (2) Provide overall management focus and direction for initiatives addressing strategies to reduce RI incidents, accidents, and related surface events.
- (3) Maintain an actualization of goals, objectives, and actions identified in the 1998 Airport Surface Operations Safety Action Plan and the associated PIP.
- (4) Evaluate material and non-material RI and SI mitigation solutions.
- (5) Prepare educational, training, and advisory material to mitigate causal factors that contribute to RI's and related SI's.
- (6) Utilize advisory bodies to ensure broadest possible range of advice on RI issues (i.e., Joint Safety Analysis Team, Commercial Aviation Safety Team, Airports Council International Technical Committee, etc.).
- (7) Organize and conduct RILT meetings.
- (8) Conduct weekly telecon.
- (9) Participate in meetings, conferences, and other organized events as directed, or as applicable.
- (10) Interface with the Office of Communication, Navigation, and Surveillance Systems in development of new technology for Runway Incursion Prevention.

(11) Ensure the National Air Traffic Controllers Association's (NATCA) national runway safety representative is informed of all RI activities.

c. AT Regional Runway Safety Representative (RRSR). The regional ATD manager's shall designate primary and secondary individuals within their respective divisions to serve as the AT RRSR. This representative shall:

(1) Keep ATO-102 apprised of pertinent RI and surface related activities.

(2) Participate in national RIAT evaluation meetings. Evaluations are conducted in accordance with this order, and may be initiated by headquarters, regional offices, or facilities. The AT RRSR RIAT roles and responsibilities are established in appendices 1, 2, 3, and 4 of this order.

(3) Attend national/regional semi-annual program reviews as directed.

(4) Participate in scheduled, or initiate/organize, activities that heighten awareness of RI issues and enhance airport surface safety.

(5) Disseminate RI data and surface related information to field facilities.

(6) Communicate and coordinate with field facility representatives as required.

(7) Coordinate with appropriate regional offices (i.e., Airports, Flight Standards) for execution of the directions established in this order.

(8) Participate in weekly telecon.

(9) Ensure NATCA regional Vice President is informed of all RI activities.

d. Facility AT Runway Safety Representative (RSR). Facility Air Traffic managers shall designate primary and secondary individuals at each facility, to serve as facility AT RSR's. AT RSR's may be assigned on a permanent or temporary basis. The representatives shall:

(1) Conduct SIPT evaluations and develop post-evaluation SIPP.

(2) Keep the AT RRSR informed of all surface safety related activities.

(3) Participate in RIAT evaluation meetings.

(4) Attend national/regional events as directed.

(5) Participate in scheduled, or initiate/organize, activities that heighten awareness of RI issues and enhance airport surface safety.

(6) Notify airport management of any surface deviation involving a vehicle or pedestrian within 3 hours of the incident.

(7) Ensure facility NATCA representative is informed of all RI activities.

## 7. PROCEDURES AND PROCESSES.

a. Runway Incursion Determination. ATO-102 is responsible for the following:

(1) Review preliminary surface operational error/deviation (OE/D), PD and VP/D reports in the Administrator's Daily Bulletin at the beginning of each weekday.

(2) Coordinate with the Air Traffic Investigations Division, AAT-200, for additional reports and details.

(3) SI reports occurring within the runway safety area (RSA) will be evaluated to determine if they are to be classified as RI's. Along with appendix 8 of this order, the following additional guidelines are used:

(a) Was the occurrence an SI?

(b) In determining whether a collision hazard exists, did one or more of the following occur:

1 The aircraft intending to land was within 1 mile of landing threshold of the incurred runway or the aircraft was a landing aircraft?

2 A controller took an unplanned action to avoid an aircraft, vehicle, object, or person on the runway (i.e., unplanned go-around within 1 mile of landing threshold)?

3 A pilot took an unplanned or evasive action to avoid an aircraft, vehicle, object or person on the runway (i.e., pilot-initiated go-around, aborted takeoff or landing, aggressive evasive maneuver)?

(c) The Runway Safety Program Manager, ATO-102, will make the final decision based on input from the ATO-102 staff.

(d) Any report which necessitates additional information will be carried on the daily RI briefing sheet listed as "Under Investigation" until sufficient information is available to make a determination. Once a determination is made (normally within 48 hours), the event will be recorded as an SI or RI as appropriate.

b. Statistical Tracking.

(1) All RI and RSA SI data will be maintained in the NRSP data base. Information categories in the data base will include, but not be limited to:

(a) NRSP event number.

(b) Preliminary error/deviation report number.

(c) Date of event.

(d) Event location.

(e) Type of incident (OE/D, PD, V/PD).

- (f) Brief narrative of event.
- (g) Aircraft and/or vehicle.
- (h) Aircraft type.
- (i) Aircraft classification (general aviation, air carrier, air taxi, or military).

(2) A briefing sheet containing current and summary RI and SI data will be developed daily (Monday - Friday) and retained in Air Traffic Operations' (ATO) shared network drive.

(3) Once an incident is determined to be an RI, that status will not be changed at a later date. When an SI report is reclassified from OE/D, PD, or V/PD to a different type of occurrence, ATO-102 will reflect this change in the data base under incident type, however, this correction will not change the number of RI events.

(3) When an incident, previously determined to be a RI, is reclassified to a non-occurrence, ATO-102 will take no action. We anticipate that this will be rare and a very minimal margin of error will result.

(4) ATO-102 shall establish a process to work with other lines of business to determine causal factors in SI's. Once determined, solutions/interventions will be analyzed.

#### c. Runway Incursion Data Distribution.

(1) ATO-100 and ATO-1 will be provided a daily brief sheet (prior to 10:30 a.m.) on evaluation/determination results and summary RI data.

(2) ATO-102 will provide current monthly RI data to the Corporate Information Division, APF-100, for inclusion in the Administrator's Fact Book.

(3) ATO-102 will provide quarterly RI data to the Safety Information Engineering and Analysis Division, ASY-100, for inclusion in the Safety Aviation System Indicators Handbook..

(4) RI data will be made available on ATO-102's web page. This data will be updated monthly.

(5) Requests for RI data, by sources other than those listed above, which include data not on ATO-102's web page, may be approved on a case-by-case basis. Requests must be written (hard copy or via cc:mail) and include the reason for the request and the specific data required.

(6) Prior to distribution, all RI data must be approved by ATO-1.

(7) ATO-102 will provide quarterly statistics for distribution.

#### d. RILT's.

(1) Established by, and responsible for, the formation, correctness, and completion of actions identified in the PIP.

(2) This cross-functional leadership team provides direction, guidance, and oversight for initiatives designed to promote surface movement safety and efficiency.

(3) The team is comprised of representatives from the Office of Airport Safety and Standards, Office of Civil Aviation Security Policy and Planning, Flight Standards, Office of Communication, Navigation, and Surveillance Systems, Requirements Development, Office of System Safety, Office of System Architecture and Investment Analysis, Air Traffic Resource Management, the William J. Hughes Technical Center, ATO, and NATCA.

(4) The team will meet as determined by ATO-102.

e. Runway Incursion Action Team. A team consisting of FAA and industry experts that conduct on-site evaluations at airports experiencing an unusually high incidence of RI's or related SI's.

(1) RIAT evaluations will be performed for the following reasons:

(a) Identified on top 20 RI priority airports list.

(b) Requested by region or facility.

(c) Emergency circumstances.

(2) RIAT members will consist of AT representatives from headquarters, regional offices, and the facility undergoing evaluation. Additional team members will be invited in accordance with appendix 1 of this order.

(3) The national, regional, and facility level RIAT team members are responsible for fulfillment of the requirements identified in appendices 2, 3, and 4 of this order.

(4) In order to standardize RIAT evaluation processes, content, findings, and corrective actions, organizations should follow, as closely as possible, the steps and procedures outlined in appendix 3 of this order.

(5) The evaluation is generally a 2-day process. However, the time required to complete individual evaluations will vary.

(6) Headquarters participation is not required at regionally initiated and conducted RIAT's.

(7) The RRSR shall formulate and forward a final draft of the RIAT SIPP to ATO-102 within 30 days of evaluation completion.

f. Surface Incident Prevention Team. A proactive, facility-level mitigation team that addresses airport-specific RI and surface error/incident issues. The SIPT framework is very similar to the RIAT's framework, except it is established and performed at the facility level.

(1) SIPT evaluations shall be conducted at least once every 12 months.

(2) In order to standardize SIPT evaluation processes, content, findings, and corrective actions, organizations should follow, as closely as possible, the steps and procedures outlined in appendix 3 of this order.

NOTE: Headquarters and regional responsibilities do not apply to SIPT evaluations.

(3) With the exception of headquarters and regional participation, SIPT's will use appendix 1 of this order.

(4) Additional individuals and/or organizations may be invited at the discretion of the initiating organization.

(5) Once assigned, team members should remain as part of the SIPT to the extent possible.

(6) The SIPT members are responsible for fulfillment of the requirements identified in appendices 2, 3, and 4 of this order.

(7) In the event a tasked organization is unable to fulfill assigned responsibilities, an associated organization within that level will assume said responsibilities.

(8) Upon completion of the SIPT evaluation, the AT RSR shall accomplish responsibilities set forth in appendix 4 of this order.

g. Surface Incident Prevention Plan. The SIPP serves as a post-evaluation "action plan." The SIPP must address, among many other things, the review of facility deficiencies, vehicle procedures and problems, and corrective actions. The SIPP will also serve as the foundation document for subsequent evaluations. SIPP's shall be developed in accordance with appendix 6 of this order.

h. Monthly User Awareness Meetings and Tape Reviews. Conducted at the top 20 RI priority airports. Typically, airports experiencing an unusually high incidence of RI's or related SI's.

(1) ATO-102 will determine each month which airports must conduct awareness meetings and tape reviews for the following month.

(2) ATO-102 will notify the RRSR of airports within his/her region that must conduct awareness meetings and tape reviews.

(3) The RRSR shall coordinate meeting with the facility AT RSR and ensure meeting and tape review completion.

(4) The AT RSR shall coordinate meeting with the airport operator, airport users, and any other organizations/individuals related to airport surface operations (awareness meeting only).

(5) The AT RSR shall conduct awareness meeting, making all arrangements.

(6) ATO-102 will notify the RRSR when awareness meetings and tape reviews within his/her region are no longer required.

(7) The RRSR shall notify ATO-102 when a facility is unable to conduct awareness meetings or tape reviews as assigned.

i. Annual Awareness Meetings. Established to assemble major airport organizations and individuals with the goal of sharing concerns, ideas, and heightening awareness.

(1) Meetings will be conducted at all controlled airports.

(2) Meetings will be performed during March or April of each calendar year.

(3) The AT RSR shall coordinate meeting with the airport operator, airport users, and any other organizations/individuals related to airport surface operations.

(4) The AT RSR shall conduct the meeting(s), making all arrangements.

j. Weekly Telecon. The weekly telecon is conducted to provide regional program participants with current RI statistical data and related surface safety information. Telecons provide an excellent opportunity for headquarters, regional, and other offices within the agency to exchange ideas and develop workable solutions to concerns and issues. ATO-102 also uses the telecon to provide guidance/clarification on new or ongoing initiatives. ATO-102 shall:

(1) Provide RI data analysis.

(2) Provide agenda and dial-in telephone number prior to telecon.

(3) Maintain current electronic and hardcopy notification/ mailing list.

(4) Maintain telecon summary.



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Program Director  
for Air Traffic Operations

**APPENDIX 1. RIAT/SIPT PARTICIPANT LIST****a. FAA National Level**

- (1) Runway Safety Program, ATO-102.
- (2) Flight Technologies and Procedures Division, AFS-400.
- (3) Airport Safety and Operations Division, AAS-300.
- (4) Advisor to the Director, AAF-6.
- (5) Safety Information Engineering and Analysis Division, ASY-100.
- (6) Airports Operations Division, ACO-200.
- (7) National Air Traffic Controllers Association (NATCA).

**b. FAA Regional Level**

- (1) Air Traffic Division (530/505 branches).
- (2) Airway Facilities Division (470 branch).
- (3) Flight Standards Division (200 branch).
- (4) Airports Division (620 branch).
- (5) NATCA

**c. FAA Facility Level**

- (1) Airport traffic control tower.
- (2) Flight Standards District Office.
- (3) Airports Division Office.
- (4) Air Traffic Supervisors Committee.
- (5) NATCA.
- (6) Applicable unions and associations.

**d. Industry/Users**

- (1) Airport personnel.
  - (a) Engineering.
  - (b) Maintenance.
  - (c) Operations.
  - (d) Security.
- (2) Fixed base operators.
- (3) Military units.

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- (4) Local airlines (chief pilots).
- (5) Air Line Pilots Association.
- (6) Air Transport Association.
- (7) Aircraft Owners and Pilots Association.
- (8) National Business Aviation Association.
- (9) Regional Airline Association.
- (10) Airport Council International.
- (11) American/International Association of Airport Executives.

**APPENDIX 2. RIAT/SIPT PRE-EVALUATION RESPONSIBILITIES**

**RIAT PRE-EVALUATION PROCESS.** The following responsibilities shall be completed prior to the scheduled evaluation date:

**a. ATO-102.**

## (1) Step 1.

(a) Determine facility to be evaluated.

(b) Coordinate evaluation specifics with the regional point of contact:

1. Date.

2. Time.

3. Location.

(c) Determine national level participants.

(d) Compose and disseminate a letter requesting evaluation participation. This letter will be sent to the appropriate Operations Branch Manager.

(e) Coordinate national level participation.

## (2) Step 2.

(a) Compile national comparison statistical data.

(b) Compile current airport specific statistical data.

(c) Compile previous evaluation documentation.

## (3) Step 3.

Provide regional point of contact a list of confirmed national level participants.

**b. AT RRSR.**

## (1) Step 1.

(a) Coordinate evaluation specifics with ATO-102.

(b) Coordinate details with selected facility.

(c) Acquire meeting conference room (2 days).

## (2) Step 2.

(a) Determine and coordinate regional level participation.

(b) Coordinate facility level participation.

(c) Provide confirmed regional and facility level participant a letter of invitation.

(3) Step 3.

Once all participants are confirmed:

1. Schedule speakers.
2. Finalize agenda.
3. Provide ATO-102 a copy of the final agenda.
4. Prepare RIAT evaluation packets for all participants. The packets shall include:
  - (a) Copy of original letter of invitation.
  - (b) Agenda.
  - (c) All compiled statistical data.
  - (d) Airport specific data.
  - (e) Previous evaluation documentation.
  - (f) A copy of runway incursion or relevant incident reports (previous 12 months).
  - (g) Name and telephone number of designated post-evaluation point of contact.

**c. AT RSR.**

(1) Step 1.

- (a) Coordinate evaluation specifics with regional point of contact.
- (b) Determine facility level participants.

(2) Step 2.

- (a) Provide the regional point of contact the full name, job title, and address of participants to receive nationally generated letter of invitation.
- (b) Coordinate facility level participation.
- (c) Coordinate field tour(s) transportation.

**APPENDIX 3. RIAT/SIPT EVALUATION GUIDELINES**

- a. Opening comments and introductions.
- b. National representative provides general overview addressing:
  - (1) Runway incursion definition.
  - (2) National runway incursion totals.
  - (3) National runway incursion statistical data.
  - (4) Ongoing and proposed national mitigation efforts.

NOTE: In the event of a regionally initiated RIAT, the regional representative would assume the national overview responsibilities.

- c. Regional representative provides general overview addressing:
  - (1) Facility national comparison (current calendar year).
  - (2) Facility runway incursion historical data (previous 3 years).
  - (3) Recent RIAT/SIPT evaluations.
  - (4) Ongoing and proposed regional mitigation efforts.
  - (5) Complete RIAT/SIPT checklist.

NOTE: Current facility statistical data can be obtained from NRSP office.

- d. Air Traffic representative provides a general overview of ATC operations, addressing:
  - (1) Standard operating procedures.
  - (2) Operations during periods of varied visibility (VMC/IMC/reduced).
  - (3) Letters of agreement.
  - (4) Facility/airport complications.
  - (5) Arrival/departure configurations.
  - (6) Incident "hot spots."
  - (7) Blind spots.
  - (8) Frequency limitations.
  - (9) Taxiing complexities.
  - (10) Vehicle and pedestrian procedures.
  - (11) Training processes.
  - (12) Air Traffic perspectives.

## Appendix 3

e. Airport Management representative provides a general overview of the airport/airfield, addressing:

- (1) Issues (past, present, and anticipated).
- (2) Current airfield status.
- (3) Topography considerations.
- (4) On-going and proposed airport improvements.
- (5) Vehicle/pedestrian procedures and training.
- (6) Letters of agreement.
- (7) Airports' perspectives.

f. Night Airfield Inspection. Team members physically inspect the following:

- (1) Airfield material condition.
- (2) Signage.
- (3) Surface markings.
- (4) Lighting.
- (5) Areas of impaired visibility.
- (6) Confusing intersections.
- (7) Established procedures.

g. Day Airfield Inspection. Team members physically inspect the following:

- (1) Airfield material condition.
- (2) Signage.
- (3) Surface markings.
- (4) Lighting.
- (5) Areas of impaired visibility.
- (6) Confusing intersections.
- (7) Established procedures.

h. Participant concerns and observations.

- (1) Identify areas of concern.
- (2) Recommendations.
- (3) Corrective actions.
- (4) Individuals/organizations responsible for accomplishment of identified corrective actions.

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- (5) Estimated corrective action completion dates.
- (6) Evaluation conclusion.

NOTE: Information obtained during this "open forum" discussion will serve as the basis for the development of the Surface Incident Prevention Plan.

**APPENDIX 4. RIAT/SIPT POST-EVALUATION RESPONSIBILITIES**

**a. ATO-102.**

- (1) Brief appropriate national level offices on findings, determinations and proposed solutions.
- (2) Maintain all documentation produced as a result of the evaluation.

**b. AT RRSR.**

- (1) Develop SIPP within 15 days of evaluation completion date, in accordance with Appendix 7, Sample SIPP, of this order.
- (2) Distribute an evaluations summary copy to all evaluation participants.
- (3) Contact office of responsibility and solicit input regarding action item status every 90 days based on evaluation completion date.
- (4) Assist in establishing revised milestones and future target dates.
- (5) Evaluate effectiveness of completed actions.
- (6) Track status of established follow-on actions.
- (7) Provide ATO-102 the status of follow-on actions every 90 days based on the evaluation completion date.

**c. AT RSR.**

- (1) Develop and disseminate draft SIPP within 14 days of evaluation completion date.

NOTE: The SIPP will be developed in accordance with Appendix 7, Sample SIPP, of this order.

- (2) Distribute RRSR approved SIPP to all SIPT participants within 45 days.
- (3) Provide regional point of contact status of established follow-on action items every 60 days based on the evaluation completion date.

**APPENDIX 5. RIAT/SIPT CHECKLIST****AIRFIELD OPERATIONS**

AO-001	Are personnel on airport movement areas required to possess airport certified and issued identification badges/permits? Does Training include radio procedures?	YES	NO	N/A
AO-002	Does training include radio procedures?	YES	NO	N/A
AO-003	Are issued badges/permits tracked and accounted for?	YES	NO	N/A
AO-004	Does the airfield use keyless entry security gates?	YES	NO	N/A
AO-005	Do airfield markings and signs meet current FAA standards?	YES	NO	N/A
AO-006	Do runway and taxiway numbering/labeling meet current FAA standards?	YES	NO	N/A
AO-007	Is ongoing airfield maintenance and/or major construction information disseminated to arriving/departing aircraft?	YES	NO	N/A
AO-008	Are local tug operator procedures in use?	YES	NO	N/A
AO-009	Is adequate airfield sweeper support available?	YES	NO	N/A
AO-010	Are personnel on movement areas in direct communications with the control tower?	YES	NO	N/A

**AIRFIELD MAINTENANCE**

AM-001	Are daily airfield inspections/checks performed?	YES	NO	N/A
AM-002	Are personnel performing airfield inspections/checks trained and certified?	YES	NO	N/A
AM-003	Is a checklist used to accomplish airfield inspections/checks?	YES	NO	N/A
AM-004	Are records of maintenance notifications, response times, and status reports maintained?	YES	NO	N/A
AM-005	To maintain airfield lighting systems, markings, and signs?	YES	NO	N/A
AM-006	Are inspection checklists retained?	YES	NO	N/A
AM-007	Does a list of outstanding airfield discrepancies and status report exist?	YES	NO	N/A
AM-008	Do procedures clearly define when unscheduled airfield inspections are required?	YES	NO	N/A
AM-009	Are the following organizations apprised of airfield maintenance and/or major construction projects?	YES	NO	N/A
	Air Traffic	YES	NO	N/A
	Flight Standards	YES	NO	N/A
	Fixed base operators	YES	NO	N/A
	Tenants	YES	NO	N/A

**AIRFIELD OPERATOR TRAINING**

OT-001	Is an airfield operator-training program implemented?	YES	NO	N/A
OT-002	When was the current operator-training program reviewed for currency?	<hr/>		
OT-003	How often is the operator-training program reviewed for currency?	<hr/>		
OT-004	Is there a designated operator-training manager?	YES	NO	N/A
OT-005	Are all individuals with access to airport movement areas required to attend airfield operator training?	YES	NO	N/A
OT-006	Are temporary airfield permits issued prior to completion of training program?	YES	NO	N/A
OT-007	Does the operator-training establish minimum knowledge requirements?	YES	NO	N/A
OT-008	Do trainees receive an airport certification?	YES	NO	N/A
OT-009	How long are certifications valid?	<hr/>		
OT-010	Are individuals required to re-certify upon certification expiration?	YES	NO	N/A
OT-011	Are individuals involved in vehicle/pedestrian deviations required to attend remedial training?	YES	NO	N/A
OT-012	Are all airfield management personnel airfield-operator certified?	YES	NO	N/A
OT-013	Does airport management coordinate operator-training and certification standards with FBO's and tenants?	YES	NO	N/A
OT-014	Are POV airfield access permits restricted to an absolute minimum and revalidated annually?	YES	NO	N/A
OT-015	Does Airport Management maintain a record of all runway incursions/surface incidents, actions taken, and results for the current and previous calendar year?	YES	NO	N/A

**QUALITY ASSURANCE**

QA-001	Is a Surface Incident Prevention Team (SIPT) established?	YES	NO	N/A
QA-002	How often are SIPT meetings conducted?	YES	NO	N/A
QA-003	Does Airport Management participate in SIPT meetings?	YES	NO	N/A
QA-004	How often does Airport Management review the following:			
	.. Airfield instructions	<hr/>		
	Letters of Agreement	<hr/>		
	Airport operator drivers program	<hr/>		
	Airport surface incidents (OE/D, PD, VPD)	<hr/>		

**QUALITY ASSURANCE**

QA-005	How often does Airport Management perform formal self-assessment?			
QA-006	Are procedures established for soliciting and encouraging customer feedback to determine the quality of airfield facilities, programs, and services?	YES	NO	N/A
QA-007	Are violations of established airfield procedures identified, documented and reported to appropriate agencies for correction?	YES	NO	N/A
QA-008	Do Airport Management, ATC and Users periodically review airfield waivers?	YES	NO	N/A

**AIRFIELD ADMINISTRATION**

AA-001	Is an Airport Layout Plan (ALP) under development?	YES	NO	N/A
AA-002	Does Airport Management conduct pre-construction conferences/briefings?	YES	NO	N/A
AA-003	Are surface incident records retained?	YES	NO	N/A

**CONTROL TOWER OPERATIONS**

AT-001	Do controllers use standard phraseology?	YES	NO	N/A
AT-002	Do any airfield "blind spots" exist?	YES	NO	N/A
AT-003	Are position relief checklists utilized?	YES	NO	N/A
AT-004	If controllers observe or are informed of any condition that affects the safe use of a landing area, is the information relayed to the appropriate authorities?	YES	NO	N/A
AT-005	Are conditions on or near the movement area described in a timely and easily understood manner?	YES	NO	N/A
AT-006	Do controllers determine the position of aircraft before issuing taxi instructions/takeoff clearance?	YES	NO	N/A
AT-007	Do controllers ensure/request a read-back of runway hold-short instructions?	YES	NO	N/A
AT-008	Are controllers authorizing pilots to taxi into position and hold at intersections between sunset and sunrise or at anytime when the intersection is not visible from the tower?	YES	NO	N/A
AT-009	Is an airport diagram available that depicts, as a minimum, runways, ramps, blind spots, overrun information, precision approach critical areas, etc.?	YES	NO	N/A
AT-010	Does each control tower light gun have a quick reference light sequence card?	YES	NO	N/A
AT-011	Are light gun signal operational checks accomplished with aircraft and vehicles, when practical?	YES	NO	N/A

**CONTROL TOWER OPERATIONS**

AT-012	Are monthly proficiency training requirements, to include required recurring and review training areas, developed and published?	YES	NO	N/A
AT-013	Are results of evaluation corrective action records maintained?	YES	NO	N/A
AT-014	Is a "Hot Spots" List posted or present?	YES	NO	N/A
AT-015	Has there been any collaborative efforts in the past for reducing runway incursions?	YES	NO	N/A
AT-016	What, if any training has been done to prevent runway incursions?	YES	NO	N/A

**APPENDIX 6. SURFACE INCIDENT PREVENTION PLAN (SIPP)****a. Introduction.**

- (1) Date.
- (2) Airport evaluated.
- (3) Meeting location.
- (4) Meeting host:
  - (a) Identified deficiency.
  - (b) Action to correct deficiency.
  - (c) Individual and/or organization responsible for carrying out action task(s).
  - (d) Projected commencement dates.
  - (e) Projected completion dates.
- (5) Team members:
  - (a) Name.
  - (b) Organization.
  - (c) Routing symbol.
- (6) Individuals and/or organizations extended invitation, but not present.

**b. Facility Overview.**

- (1) Airport statistical data:
  - (a) National ranking (current year).
  - (b) Runway incursion data (3-year history).
  - (c) Other relevant statistics.
- (2) Most recent RIAT/SIPT evaluations:
  - (a) National.
  - (b) Regional.
  - (c) Local.

**c. Proceedings Overview.**

- (1) Meeting commencement.
- (1) Summary of presentations, to include:
  - (a) Orator's full name and organization.
  - (b) Brief synopsis of individual topics addressed.

**d. Findings.**

- (1) Communications/phraseology.
- (2) Taxi routes.
- (3) Construction.
- (4) Equipment limitations.
- (5) Surface markings.
- (6) Local procedures.
- (7) User concerns.
- (8) Airport specific miscellaneous.

**e. Corrective Actions.**

- (1) Identified deficiency.
- (2) Action to correct deficiency.
- (3) Individual and/or organization responsible for carrying out action task(s).
- (4) Projected commencement dates.
- (5) Projected completion dates.

**f. Implementation.**

- (1) Facility point of contact responsible for ensuring implementation, tracking and completion of corrective actions.
- (2) Projected SIPT completion date.
- (3) Next scheduled evaluation/meeting.

**APPENDIX 7. SAMPLE SIPP**  
**SURFACE INCIDENT PREVENTION PLAN**  
**ANYWHERE INTERNATIONAL AIRPORT**  
**JUNE 7-8, 1999**

**Introduction.**

On June 7, 1999, the Runway Incursion Action Team (RIAT) for Anywhere International Airport (XYZ) convened at the Aeronautical Technology Center (located in the XYZ main terminal). Mr. Hank Aaron, Operations Branch Manager, AXX-530, and Mr. Ty Cobb, Runway Safety Program Manager, ATO-102, hosted the meeting. Present at the meeting were:

Ty Cobb, Runway Safety Program Manager, ATO-102  
Hank Aaron, Operations Branch Manager, AXX-530  
Sarah Ball, Flight Standards Division  
Josh Gibson, XYZ Airport Airfield Administrator  
Ted Williams, XYZ ATCT Operations Manager  
Joe Jackson, ALPA  
Mel Ott, Trans World Airlines

The following individuals/organizations were extended an invitation, but were not in attendance:

Roger Clemens, Office of System Safety, ASY-100  
Ozzie Smith, XYZ Airport Security  
Jennifer Tallman, NBAA

**Background.**

Nationally, Anywhere International Airport is ranked in the top three airports with runway incursions. Ranking is determined using total number of runway incursions, rate per 100,000 operations, and order of significance. This RIAT visit was conducted to review existing conditions at XYZ that may contribute to the development of a runway incursion. The first RIAT meeting was held Anywhere International Airport in 1995 sponsored by the Airports Division, with follow-up meetings in 1996, 1997, and 1998. However, this was the first meeting hosted by Anywhere Airport Traffic Control Tower and the Air Traffic Division. In 1998, according to data provided by ATO-102, Anywhere International Airport experienced seven runway incursions. During the past 12 months, Anywhere International Airport has experienced 5 runway incursions, a 1.85 rate, and 15.75 order of significance. The highest concentration of incursions continues to be in the area of pilot deviations. There have been no vehicle/pedestrian deviations during the past 12 months.

## Appendix 7

**Day One Proceedings.**

Mr. Aaron, our host, opened the meeting and welcomed FAA officials, airport officials, and other team members. After customary introductions of meeting team members, Mr. Aaron provided a general evaluation overview. This overview clarified the purpose and anticipated results. Mr. Aaron commenced presentations by introducing the first orator:

Mr. Ty Cobb, National Runway Safety Program (NRSP) Manager, ATO- 102  
Mr. Cobb presented the following:

1. NRSP Office initiatives and current status.
2. National runway incursion statistical data.

Mr. Ted Williams, XYZ ATCT Area Supervisor  
Mr. Williams addressed the following:

1. Airport familiarization which covered airport:
2. Layout.
3. Airport topography.
4. Equipment.
5. Markings.
6. Procedures.
7. Meteorological considerations.

Team members were briefed on initiatives currently in place to prevent runway incursions and those being developed for implementation. The following initiatives were noted:

**Recently Implemented.**

1. Taxi Into Position and Hold Acknowledgments.
2. Controller Memory Enhancement and Refresher Training.

**Ongoing.**

1. Surface Movement Guidance and Control System (SMGCS).
2. New Airport Signage (Wig-Wag Lights).

**Proposed.**

1. Airport Surface Detection Equipment (ASDE).
2. Land and Hold Short Operations (LAHSO).

Team members then reviewed the details of recent runway incursions to identify common contributing factors. Variables such as time of day, incursion location, deviation type, and deviation explanations were analyzed. The team also examined ATCT procedures, as well as, individual operating positions and respective responsibilities. The local method of coordinating runway crossings was discussed in length. A number of team members did not realize the intricacies of coordinating and accomplishing a runway crossing. Team members then completed the RIAT/SIPT Checklist.

After lunch, a day airport inspection was conducted and team member concerns were addressed.

**Day Two Proceedings.**

A night airport inspection will be conducted to evaluate operations during periods of darkness/reduced visibility.

**Findings and Conclusions.**

Upon completion of the briefings and airport inspections, the following observations and user concerns surfaced:

1. Runway 36 is a problem area because pilots exit the Eagle Ramp directly onto Runway 24. The hold short lines are located on the Eagle Ramp.

The holding markings at the intersection of Runway 27 and Taxiway Foxtrot are faded and not in compliance with national standards.

**Action Items.** (Responsible office identified in parenthesis):

**Action I** - Controllers assign intersection departures on Runway 36 at Taxiway Whiskey for Category I and II aircraft. Aircraft will turn right on Runway 24 for the intersection departure. (XYZ TWR) (EACD XX/XX/XX).

## Appendix 7

**Action II** - Angle the existing Runway 36/18 sign on the south ramp at Taxiway Whiskey and avoid parking aircraft in front of sign. (AIRPORT AUTHORITY)  
(EACD XX/XX/XX).

**Action III** - Delay Runway 14L PAPI installation and leave current VASI system until the new Runway 27L/09R is completed. Use the Runway 27L PAPI funds to install the PAPI on Runway 24. (AIRWAY FACILITIES, AIRPORTS.) (EACD XX/XX/XX.)

**Implementation.**

Review and implement identified actions. A comprehensive Airport Visit Action Plan will be completed and a copy forwarded to the Operational Branch Manager, AXX-530, no later than August 22, 1999. AXX-530 is then responsible for forwarding a copy to the National Runway Safety Program, ATO-102.

### APPENDIX 8. RUNWAY INCURSION DECISION LOGIC

