

**Runway Incursion
Joint Safety Implementation Team**

**Implementation Plan
for
Pilot Training**

Statement of Work:

- Develop policies, procedures, and implementation guidelines for Pilot Training programs to prevent runway incursions. The outcome of this work will be:
- Training and/or standardization programs emphasizing situational awareness, standard operating procedures, and pre-flight planning
- Emphasis on Cockpit Resource Management (CRM) and command leadership training skills to address the dynamic operating environment faced by pilots
- Guidance for prioritization in a multi-tasking environment to emphasize situational awareness, ground operations, and use of all resources.

Lead Organization for Overall Project Coordination (LOOPC): AFS-1

Safety Enhancement: (SE-60)

Substantially reduce or eliminate the risk of Runway Incursions (RI) by the incorporation of RI training into flight crew qualification, approved training, and other pilot training programs. This training will increase the pilot's ability to recognize and avoid situations leading to runway incursions.

Score: **2007 (1.0)** **2020 (1.0)** **100% (1.2)**

Resource Requirements:

- Outputs 1-6: 5.75 FTE years by FAA
- Outputs 3 & 4: Mailing expense to all CAST/JSC members and to all active pilots
- Outputs 5 & 6: 2 FTE months per training organization for development
- Output 6: Captain training appropriate to the complexity of the operation of the individual air carrier.

Output 1:

Runway Safety Program Office should identify and compile runway safety materials currently available from Government, Industry, Academia, and DOD and make that material available for education, training, and awareness of pilots.

Resources: ARI-1 (LOOC) (1 FTE year)

Timeline: 12 months

Actions:

ARI-1 should compile and publish an electronic reference library to be shared with industry users and made available on the Runway Safety Program website.

Output 2:

Flight Standards should issue guidance as necessary directing all flight standards district offices, aviation safety inspectors, and principal operations inspectors to place increased significance on ground operation performance on all pilot flight training.

Resources: AFS-1 (AFS-800 LOOC & AFS-200) (1 FTE 3 months, and mailing expense to CAST/JSC members)

Timeline: 9 months

Actions:

- Re-publish Joint Flight Standards Information Bulletin (FSIB) for Aviation Transportation (FSAT 00-09) and General Aviation (FSGA 00-06) (Increased Surveillance and Testing of Surface Movement Operations) without an expiration date and including a PTRS code for the Aviation Safety Inspectors (ASI) to document their increased surveillance and testing in these areas.
- FAA (AFS-1) should communicate, in writing to all FSDO Managers and POIs, the critical importance of rapid compliance with these bulletins.
- CAST/JSC should communicate in writing to all members and associated pilots, the critical importance of rapid compliance with these bulletins.

Output 3:

Increase the number of surface movement tasks on all written and practical test standards.

Resources: AFS-800 (LOOC), AFS-600 (1 FTE year (all tests))

Timeline: 12 months

Actions:

- Increase the number of surface movement related questions on all airmen written tests.
- Revise practical test standards to include “best practices” listed in FSAT 00-09 & FSGA 00-06.

Output 4:

FAA should draft and publish Advisory Circulars (AC 91-XX) and AC 120-XX drafted) recommending methods for Airline/Operator training and standardization programs to cover the following:

- Methods to establish aircraft position using all available resources and tools (charts, ATC, inter/intra crew communication).
- Provide guidance regarding Situational Awareness, including knowledge and understanding of the relevant elements of the pilot surroundings, including: the pilots aircraft location, other aircraft on short final, aircraft systems and the pilot’s intentions.
- Provide guidance on the importance of adequate pre-taxi planning and briefing, including before taxi out and after landing.
- Provide background information for SOPs and training programs to ensure pilots understand the rationale behind those procedures and programs.

Resources: AFS-800 (LOOC) & AFS-200, CAST/JSC organizations (1 FTE year, and mailing to all active pilots)

Timeline: 12 Months. (AC’s 91-73 and 120-74 were published and signed on June 18th 2001)

Actions:

AC 91-73 shall be mailed to all certificated pilots. AC 120-74 shall be mailed to all Airline Transport certificated pilots. (Mailings accomplished by the FAA Office of Runway Safety.)

Output 5:

FAA should specifically include taxi operations and ATC taxi instructions in AC 120-35C.

Resources: AFS-210 & ATA (LOOC), CAST/JSC (1 FTE year, 1 FTE month per airline)

Timeline: 18 months

Actions:

- Revise AC 120-35C Line Operational Situations: Line Oriented Flight Training, Special Purpose Operational Training, Line Operational Evaluation to specifically include taxi operations and ATC taxi instructions in Chapter 3, paragraph 18(b) and 18(d).
- Within 180 days of revision, the DOS or his designee will report to their member organization that the provisions of AC 120-35C have been implemented.

Output 6:

Modify language within AC 120-51D to provide guidance for clear delineation of captain command oversight training and first officer monitoring responsibilities during surface movements.

Resources: AFS-210 & ATA (LOOC), ARI-1, AFS-800 (1.5 FTE year, 1 FTE month per airline, plus captain training appropriate to the complexity of the operation of the individual air carrier.

Timeline: 18 Months

Actions:

- FAA should provide guidance as necessary directing operations inspectors to provide clear delineation of captain command oversight training and first officer monitoring training in accordance with AC 120-51D (as modified).
- The AIM should be revised to include information for conducting crewmember responsibility training.
- Within 180 days of revision, the DOS or his designee will report to their member organization that the provisions of AC 120-51D (as modified) have been implemented.

Relationship to Current Aviation Initiatives

- Creation of Runway Safety Program Office within the FAA
- Regional Runway Safety Program Managers added to FAA Regional Offices
- Runway Safety Program Office in conjunction with Runway Incursion JSIT created Top Ten Initiatives For Reducing Runway Incursions
- Joint Industry/Government Runway Incursion Summits
- FAA published guidance material (AC, HBAT, PTS, etc.)
- Runway Incursion Actions Teams (RIAT)
- Linking of Runway Safety Program Initiatives to Runway Incursion Joint Safety Implementation Team Initiatives

Performance Goals and Indicators

- Goal: Reduction of runway incursions where a pilot deviation was the causal factor.
 - Indicator: Reduction in the number and rate of runway incursions resulting from pilot deviations as measured by the FAA Runway Safety Program office by 2005.

- Goal: All Part 121/135 Air Carriers and Part 141/142 Training Centers have training and evaluation in their flight crew qualification program, approved training programs and other pilot programs in the specified topics.
 - Indicator: 100% compliance by all Part 121/135 Air Carriers Part 141/142 Training Centers by 2005.
- Goal: Mail Advisory Circular 91-XX entitled “Part 91 Pilot and Flight Crew Procedures During Taxi Operations” to the home address of all active pilots.
 - Indicator: Advisory Circular mailed as soon as possible.

Programmatic Approach

Organizational Strategy

The Runway Incursion JSIT identified David Harvell, FedEx, as the JSIT project lead for Runway Incursion Prevention Training. The project lead will coordinate implementation activities outlined in the Implementation Plan and will provide progress reports to the Runway Incursion JSIT until receipt of CAST G Level approval. Implementation is viewed as a shared responsibility between the FAA and the Part 121/135 air carriers and Part 141/142 Training Centers. The FAA offices of primary responsibilities (OPR) for this plan are AFS-1, AFS-210, AFS-800, POI and FSDO offices. The primary responsibility for industry is shared between CAST and JSC member organizations.

Implementation Activities

Major activities include a training material website, publication of guidance documents, changes to written and practical test standards with increased significance on evaluation of ground operations, crew responsibility training and increased direct mailings to pilots. These activities will increase awareness and adherence to ground operations procedures by all pilots thereby reducing errors that lead to runway incursions.

Key Products and Milestones

• Runway Incursion Library Website Developed	12 months
• FSAT: increased significance on ground ops developed	9 months
• FSAT: increased significance on ground ops distributed	9 months
• FSGA: increased significance on ground ops developed	9 months
• FSGA: increased significance on ground ops distributed	9 months
• Practical Test Standards revised for ground operations	12 months
• AC: Part 91 Flight Crew Procedures during taxi operations developed	12 months
• AC: Part 91 Flight Crew Procedures during taxi operations distributed	12 months
• AC: Part 121, 125, 135 Flight Crew Procedures during taxi ops developed	12 months
• AC: Part 121, 125, 135 Flight Crew Procedures during taxi ops distributed	12 months
• AC 120-35C: Line Oriented Flight Training to include ground ops developed	18 months
• AC 120-35C: Line Oriented Flight Training to include ground ops distributed	18 months
• AC 120-51C: Delineate crew responsibilities for ground ops: revision	18 months
• AC 120-51C: Delineate crew responsibilities for ground ops: distribute	18 months

Risk Description

- Possible added training cost for carriers and general aviation
- Resistance to voluntary compliance by some carriers, training centers and general aviation segment of industry

Risk Mitigation Plan

- Many of the air carriers and training centers presently provide Runway Incursion training.
- Cooperation between FAA and industry organizations would preclude entering into the rule making process.

Impact on Non Part 121 or International Applications

- Opportunity to standardize methods of training for all pilots to achieve one level of safety with regard to runway incursion prevention. Opportunity for an exchange of information between FAA and ICAO/JAA to educate, train, and increase the awareness of most international operators. ICAO and JAA are represented on CAST. Both have adopted Runway Incursion prevention procedures and have similar programs.