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REGIONAL FOCUS

Accident and Incident Investigation for the Latin America and Caribbean Region

Wednesday 14, 21, 28 July and 4 August 2021 08:00 – 09:30 EDT





Mr. Shayne Campbell

Safety Programme Manager





Mr. Javier Vanegas

Director Latin America and Caribbean Affairs





Mr. Shayne Campbell

Safety Programme Manager







Mr. James Fee

ATO Safety Intelligence and Response Group Manager

FAA

Dr. Christina Filipowski

Team Manager Safety Intelligence and Response Group

FAA





Mr. James Fee

ATO Safety Intelligence and Response Group Manager

FAA

Policy and Purpose of Air Traffic Investigations

Why is reporting significant events important to FAA?

As managers, we are responsible for immediate notification and response to significant or noteworthy events to the leadership.

Regardless of other investigations or assessments conducted by organizations outside the FAA, it is important that the FAA proceed with its own fact finding at every level to provide transparency of its operation of the National Airspace System (NAS).

It is important that the FAA conduct an event review for each significant or noteworthy event occurring in the system, in order to identify safety issues, establish the facts, conditions, and circumstances surrounding the event, and establish meaningful recommendations to prevent, mitigate, or reduce the possibility of recurrence.

Whether you are at a facility, district, service area, or national program level successful risk management depends on the prompt and timely collection, and upward reporting of accurate information.



U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

Air Traffic Organization Policy

ORDER JO 1030.3B

Effective Date: 01/06/ 14

SUBJ: Initial Event Response

This Order prescribes Federal Aviation Administration (FAA) Air Traffic Organization (ATO) procedures and responsibilities for immediate notification and response to significant or noteworthy events (for example, major aircraft accidents, near mid-air collision reports, major service disruptions) that necessitate an event review and reporting to the Chief Operating Officer (COO). This Order also specifies ATO policy and procedures for post-event investigation of events where ATO involvement could be a factor. Regardless of other investigations or assessments conducted by organizations outside the ATO, it is important that the ATO proceed with its own fact finding at every level to provide transparency of its operation of the National Airspace System (NAS). It provides direction and guidance to ATO Service Units, Service Areas, Service Centers, offices that deal with the dissemination of information following an event, and facilities that are called upon to assist in event reviews following such events. The ATO, through the processes in this Order, will ensure that the facts surrounding significant events are adequately compiled and reported in a most expeditious manner to the COO.

The mission to improve the safety and efficiency of the NAS is never complete. All concerned personnel must familiarize themselves with the provisions of this Order related to their operational responsibilities and use their best judgment if they encounter situations not specifically described in the Order.

ICAO SARPs



- Annex 13 Aircraft Accident and Incident Investigation
- Manual of Aircraft Accident and Incident Investigation (Doc 9756):
 - Part I Organization and Planning
 - Part II Procedures and Checklists
 - Part III Investigation
 - Part IV Reporting
- <u>Manual on Accident and Incident Investigation Policies and</u>
 <u>Procedures (Doc 9962)</u>
- Training Guidelines for Aircraft Accident Investigators (Circ 298)

ICAO SARPs



- Annex 13 Aircraft Accident and Incident Investigation contains the international Standards and Recommended Practices for aircraft accident and incident Investigation
- Manual of Aircraft Accident and Incident Investigation (Doc 9756):
 - Part I Organization and Planning, 1st Edition 2000, includes considerations for the establishment of an aircraft accident
 investigation authority in terms of its structure, staffing and legislation. The planning of an investigation and the notification process
 for accidents and incidents are also addressed, as are the initial actions to be taken at an accident site, with particular emphasis on the
 safety of personnel. A directory of the accident investigation authorities in all States and their contact details is included.
 - Part II Procedures and Checklists, 2nd Edition 2012, provides information on the common techniques and procedures, as well as
 checklists to assist States in aircraft accident and incident investigations. The manual also provides guidelines on major investigations
 that can be used, particularly, in the conduct of larger accident investigations.
 - Part III Investigation, 1st Edition 2012, provides guidance for the investigation of all technical areas that may have been involved in an aircraft accident or incident. Likewise, guidance is provided for the several phases of an investigation. Contents addressed include, among others, wreckage investigation, structures and systems investigation, flight recorders, aircraft performance, etc.
 - Part IV Reporting, 2nd Edition 2013, provides guidance in developing the final reports as a result of the investigation of aircraft
 accidents and incidents, including comprehensive guidelines on drafting and processing of safety recommendations. It outlines the
 format and content and the procedures for consultation, release, distribution, and dissemination of the final report.
- <u>Manual on Accident and Incident Investigation Policies and Procedures (Doc 9962)</u> is an implementation tool to assist States in developing a policies and procedures manual for accident and incident investigation. The contents of the manual provide a template for States to modify, as necessary, their accident investigation documentation to be in line with Annex 13 provisions and to standardize and harmonize accident investigation processes among ICAO Member States. The manual was developed in such a manner that States can adapt it by "filling in the blanks" with State-specific material such as legislation, regulations, etc.
- <u>Training Guidelines for Aircraft Accident Investigators (Circ 298)</u> outlines the training requirements for aircraft accident investigators, including background experience, initial and on-the-job training, and basic and advance investigation courses. It also provides guidelines for accident investigation courses.

THANK YOU



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Dr. Christina Filipowski

Team Manager Safety Intelligence and Response Group

FAA

CANSO

Overview-

- FAA Organization
 - Joint Air Traffic Operations Command (JATOC)
 - Safety
 - Accident Investigation (AVP)
 - Human Factors
 - Litigation
- Policies and Procedures
- Reporting Processes
 - Significant Events
 - Aircraft Accidents
- Safety Culture

Publications



- **a.** FAA Order JO 7110.65, *Air Traffic Control*
- **b.** FAA Order JO 7210.633, Air Traffic Organization Quality Assurance Program (QAP)
- **c.** FAA Order JO 7210.634, Air Traffic Organization Quality Control (QC)
- **d.** FAA Order JO 7200.20, Voluntary Safety Reporting Programs
- **e.** FAA Order JO 1030.3, *Initial Event* Response
- **f.** FAA Order JO 8020.16, Air Traffic Organization Aircraft Accident and Aircraft Incident Notification, Investigation, and Reporting

- **g.** FAA Order JO 8020.11, Aircraft Accident and Incident Notification, Investigation, and Reporting
- **h.** FAA Order JO 1350.14, Records and Information Management (RIM)
- **i**. FAA Order JO 7200.25, Joint Air Traffic Operations Command (JATOC)
- **j.** FAA Order JO 3120.4, Air Traffic Technical Training
- **k.** FAA Order JO 7350.9, Location Identifiers
- I. FAA Order JO 6000.15, General Maintenance Handbook for NAS Facilities
- **m.** FAA Order JO 6000.5, Facility Service and Equipment Profile (FSEP)
- **n.** FAA Order JO 1000.37, Air Traffic Organization Safety Management System

Chicago Center Fire - 2014





Controller:

"Attention all aircraft on 121.5: If you can hear this, this is Chicago Center. We are evacuating the building due to a fire. If you need any assistance just try to contact a nearest FAA approach facility."

What is JATOC?



From equipment outages to aircraft emergencies and security issues, the JATOC helps the Air Traffic Organization (ATO) effectively prepare for, respond to, and recover from, significant incidents in the National Airspace System (NAS).

THE JATOC delivers:

- A holistic view of significant challenges in the NAS and the ATO's response.
- Accurate, timely information to FAA and ATO leadership for more effective decision-making.
- Real-time support to ATO personnel as they manage events affecting facilities and airspace.
- Greater situational awareness throughout the aviation community.

One Mission One System One Team

For more information, contact: 9-ATO-JATOC@faa.gov

Flight dumps fuel on school playground

Delta Air Lines Flight 89 heading to Shanghai declared an emergency and returned to Los Angeles International Airport after releasing fuel to reduce the landing weight.

Safety and Technical Training

- Safety Intelligence and Response Group (SIRG)
- Runway Safety
- Human Performance
- Quality Assurance
- Voluntary Safety Reporting Programs
- Litigation

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

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Definitions

- Aircraft Accident As defined in FAA Order JO 8020.11, Aircraft Accident and Incident Notification, Investigation, and Reporting, an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight and the time all such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage.
- **Aircraft Incident** As defined in FAA Order JO 8020.11, an occurrence other than an accident, associated with the operation of an aircraft, which affects or could affect the safety of operations.
- Air Traffic Incident An air traffic incident encompasses all problems not affecting the aircraft directly; for example, near-midair collisions (NMACs); pilot, vehicle, or pedestrian deviations; and Traffic Alert and Collision Avoidance System (TCAS) resolution advisory (RA) occurrences. An air traffic incident differs from an aircraft incident.

Reporting

Employees must ensure that all occurrences of which they are aware, through either direct involvement or observation, are reported.

All personnel with knowledge of an occurrence are encouraged to report, even if this results in multiple submissions of the same occurrence.

Reporting

- Comprehensive Electronic **Data Analysis and Reporting** (CEDAR) - A web-based, comprehensive data reporting, collection, and analysis tool
- Mandatory Occurrence Report (MOR) – An occurrence involving air traffic services or technical operations services for which the collection of associated safetyrelated data and conditions is mandatory.

https://cedar.faa.gov/MorEorForm.php?entryID=1050034208

Otherwise, you may view the MOR/EOR at: https://cedar.faa.gov/MorEorForm.php?entryID=1050034208&rid=949843427

For any additional information, please contact your Service Area QA Office.

FAA Form 7210-13 Air Traffic Mandatory Occurrence Report (continued)

Air Traffic Mandatory Occurrence Report

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Mandatory Occurrence Report Criteria

- Airborne Loss of Separation
- Unmanned Aircraft System (UAS)
- Airport Surface Loss of Separation
- Terrain/Obstruction
- Airborne Air Traffic Control Anomaly (Airspace/Altitude/Route/Speed) Not Involving a Loss of Separation

CANSC

- Airport Environment
- Oceanic Environment
- Communication
- Emergency or In-Flight Hazard
- Inquiry

Incident Occurs

Charleston (CHS) International Airport

Begin the Investigation

- Conduct initial investigation of event
- Determine safety risk-advise FAA senior management if necessary.
- Gather relevant data related to event
- Recommend Services Rendered Telcon (SRT) when appropriate
- Conduct on site investigation when required
- Provide a report to the Deputy Chief of Operations outlining activities undertaken during the investigation.

<u>2 Fatal – N3601V/C150 – VFR – Tuesday,</u> July 7, 2015, at 11:00 a.m. EDT:

Death41/F16 enroute from Myrtle Beach, SC (MYR) to Shaw AFB (SSC) was north of CHS making a practice approach to CHS when the F-16 collided with N3601V/C150 that had departed the Berkeley County (MKS) Airport eastbound. The F-16 pilot flew for several more miles and ejected from the aircraft and is safe on the ground. The Fixed Base Operator at MKS reports that 2 occupants were on the C150. Jacksonville ARTCC (ZJX) issued and cancelled an ALNOT for N3601V. The aircraft has been located with the aircraft occupants reported as fatal. The weather was VFR.

CANS

Public availability to be determined under 5 USC 552 INFORMATION CONTAINED HEREIN IS BASED ON PRELIMINARY REPORTS AND IS SUBJECT TO REVISION

ATO Safety Report Monday, April 20, 2020

Significant/Noteworthy Incidents/Activities

Accidents: 1 Reported

1 Fatal - N756TH/C206, VFR - Saturday, April 18, 2020 at 10:42 a.m. PDT:

N756TH/C206, VFR, crashed near Auburn, CA. No ATC services were provided. There were two people on board. The Placer County Sherriff reported the accident. Auburn Mayor Bill Kirby, a vocal critic of the current administration, was killed in the crash. The other person on board received a serious head injury and was transported to the hospital. The NTSB reported the aircraft was destroyed.

Operational Incidents: 2 Reported

Tulsa Riverside (RVS) ATCT - Thursday, April 16, 2020 at 10:40 a.m. CDT:

N981WU/C172 crossed Runway 19R at Taxiway H and conflicted with N4976G/C172, which was landing on Runway 19R. The facility-estimated closest proximity was 4,750 feet and an overflight did not occur.

The Local Control controller cleared N4976G to land Runway 19R. N981WU landed Runway 19L, exited the runway at Taxiway H, and the controller instructed them to hold short of Runway 19R. The facility reported that N981WU crossed onto Runway 19R as

the crossing as N4976G was abeam Taxiway A5.

Philadelphia (PHL) ATCT - Friday, April 17, 2020 at 6:30 p.m. EDT: (American)

AAL1997/B738 crossed Runway 27R without a clearance and conflicted with AAL1532/A319, cleared to land on Runway 27R. The closest proximity was 4,687 feet.

AAL1532 was in communication with the Local Control West (LCW) controller and cleared to land on Runway 27R. AAL1997 established communication with the Ground Control East (GCE) controller and requested taxi instructions for departure. The GCE controller instructed AAL1997 to taxi to Runway 27L via Taxiway T, hold short of Runway 27R. AAL1997 acknowledged the instruction to hold short of Runway 27R; however, crossed Runway 27R conflicting with AAL1532 who had crossed the Runway 27R threshold. The LCW controller instructed AAL1532 to go around. AAL1532 completed the landing and reported that they had already initiated reverse thrusters. It was reported the GCE controller first noticed the conflict and advised the LCW controller to send AAL1532 around. The facility reported that the ASDE-X did not alarm.

Follow-Up Activities: None Reported

Services Rendered TELCONs: None Scheduled

Current NTSB Activities: None Reported

"KEEP SAFETY FIRST"

Air Traffic Organization Safety and Technical Training Compliance Service Group

FOR OFFICIAL USE ONLY Public availability to be determined under 5 USC 552 INFORMATION CONTAINED HEREIN IS BASED ON PRELIMINARY REPORTS AND IS SUBJECT TO REVISION.

Services Rendered Telcon (SRT)

 SRT is a management review to assess the ATO services associated with a significant or noteworthy event. It is intended for managers to be able to openly discuss critical operational information associated with the significant or noteworthy event.

CANS

- The SRT is intended to give all participants a snapshot of the conditions surrounding the event.
- SRT will determine seriousness of the event using a color code:
 - Red An ERT must be launched immediately
 - Yellow An ERT may be launched
 - Green An ERT is not necessary

Services Rendered Telcon (SRT)

- Common Questions
 - Traffic volume and complexity
 - What positions were open
 - Supervision
 - Weather
 - Did controllers observe the event?
 - Notification process
 - emergency services
 - management

Charleston Services Rendered CANSO Telecon Findings

- A Services Rendered TELCON was conducted and the event was color coded "Yellow" with an Event Response Team (ERT) launch. CHS management provided a briefing on the event that included a review of voice communications.
- The facility briefed that there were 2 controllers on duty in the TRACON at the time of the event. One controller was working the WR position and one was working the WR Handoff position combined with CIC. The ATM considered the traffic volume moderate and not complex. The FLM on duty was in the ATCT. The ATM had just entered the TRACON at the time of the event.
- DEATH41 was on a westbound vector to the TACAN approach to Runway 15 at CHS Airport at 1,600 feet. The facility briefed that the F16 pilots prefer to be at 1,600 feet on the base leg and that it is not unusual for F16s to exceed 250 knots below 10,000 feet. The Minimum Vectoring Altitude (MVA) in that area is 1,600 feet.
- The WR controller issued traffic to DEATH41 when the aircraft were 2 miles apart while the VFR target indicated 1,200 feet.

Charleston Services Rendered Telecon Findings

- The WR controller then instructed DEATH41 to turn to a 180-degree heading if the traffic was not in sight. The WR controller did not issue a safety or traffic alert
- DEATH41 made several unintelligible transmissions before broadcasting "Mayday" three times. No further transmissions were received
- Immediately after the collision, the CIC/handoff controller informed the ATM that they may have an aircraft down and marked the position on the radar scope with a grease pencil
- The FLM initiated the emergency response and suspended operations at CHS Airport and notified Jacksonville ARTCC (ZJX) to issue an ALNOT
- > The facility will conduct a Covered Event Review

Event Response Team (ERT)

Investigations

• Office of Accident Investigation and Prevention (AVP). AVP is the office responsible for directing aircraft accident investigation policy and standards for the FAA.

AVP's Vision. Being recognized as an FAA and industry leader in safety investigation, analysis, and information sharing.

AVP's Mission. Making air travel safer through investigation, data collection, risk analysis, and information sharing.

Accident Package

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Human Factors

Safety Management Systems – Safety Promotion Component

Responsibilities Safety Culture Reporting Culture Just Culture

FAA Safety July/August 2019 Your source for general aviation news and information Safety Culture CHEROKEE 23 Out For You p 25 ust Vou n **Federal Aviation**

Administration

faa.gov/news/safety_briefing У @FAASafetyBrief

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QUESTIONS AND ANSWERS

Mr. Shayne Campbell

Safety Programme Manager

Next webinars

- Wednesday 21 July: Human Factors in Air Traffic Events
- Wednesday 28 July: Event Investigation Process (Microsoft Teams)
- Wednesday 4 August Accident Investigation and Transition from Compliance to Risk

08:00-09:30 EDT // 12:00-13:30 UTC

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