

Considerations in the Investigation of Incidents:

Incident Research, Preparation & Planning

Presented to: **Air Traffic Incident Analysis Workshop**

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ATS Incident Analysis Group



**Federal Aviation
Administration**



Objective:

- Understand the steps in researching, preparing, and planning for an incident investigation.
- Demonstrate understanding of ATS investigations through practical exercises based on actual event scenarios.
- Collaborate with team members to research, prepare, plan, and conduct an ATS investigation.
- Present the group's findings at the conclusion of the investigation exercise.



Steps taken by EIM in reviewing an event:

- Receive email notification of a significant event
- Gather any additional information available
 - Radar replay
 - Audio Files
 - Telephone Conference (Telcon) with Service Area QC Specialist/Facility personnel when available/necessary for further information
- Forward a summary of the event via email.
 - Services Rendered Telcon (SRT) conducted (when necessary)
- Summarize the findings of the SRT via email



ZAB Exercise – Research & Preparation - Initial Notification

ASH5614 WAS A DEPARTURE OFF ABQ FOR PHX. ASH5614 CHECKED ON TO SECTOR 93 AT 1555Z AND WAS ISSUED FL340. 43 SECONDS LATER A TEMPORARY ALTITUDE WAS ENTERED INTO THE DATA BLOCK OF FL320. DAL1700 WAS AN OPPOSITE DIRECTION OVER FLIGHT AT FL330. DAL1700 WAS SHIPPED TO SECTOR 17 AT 1559Z. CONFLICT ALERT WENT OFF AROUND 1602Z AS ASH5614 CLIMBED THROUGH THE TEMP ALTITUDE OF FL320. THE CONTROLLER QUESTIONED ASH5614 ABOUT THEIR ALTITUDE AND ASSIGNED ALTITUDE AS ASH5614 REPORTED THEY WERE RESPONDING TO A TCAS RA AND DESCENDING. ON SECTOR 17 AT 1602Z DAL1700 ALSO REPORTED RESPONDING TO A TCAS RA AND CLIMBED TO FL335. ERAM REPLAY SHOWED D93 ENTERING THE TEMPORARY ALTITUDE ON ASH5614.



ZAB Exercise – Research & Preparation - Initial Significant Event Report

Albuquerque ARTCC (ZAB) – Thursday, January 28, 2016 at 9:02 a.m. MST: (Delta) DAL1700/B739 was eastbound at FL330. (Air Shuttle) ASH5614/CRJ9 was westbound climbing to FL280. The R93 controller instructed ASH5614 to climb to FL340 which placed the aircraft in conflict with DAL1700. Forty-three seconds later, the sector 93 D-side controller entered FL320 in the data block of ASH5614; however, ASH5614 was not instructed to stop the climb at FL320. Training was in progress on the sector 93 D-side position. As ASH5614 climbed above FL320, the conflict alert activated and the R93 controller questioned ASH5614. ASH5614 reported responding to a TCAS RA and descended. DAL1700 also responded to a TCAS RA and climbed.



ZAB Exercise – Research & Preparation - SRT Findings

- The facility discussed the event with the R93 and both D93 controllers following the occurrence. The D93 OJT Instructor did not recognize that the D93 Developmental had entered FL320 into the data block of ASH5614. The D93 Developmental did not have an explanation for entering FL320. The R93 controller believed that ASH5614 was climbing to FL320.
- When FL320 was entered in the data block, the conflict alert probe and En Route Decision Support Tool (EDST) no longer identified DAL1700 as a conflict. The facility reported that almost 6 minutes elapsed from the entry of FL320 in the data block to the report of the TCAS RA by ASH5614.



ZAB Exercise – Research & Preparation - SRT Findings cont.

- The R93 controller did not apply merging target procedures between DAL1700 and ASH5614 as required. The facility reported that the Standard Operating Procedure requires the issuance of traffic for all merging targets prior to transfer of communications. DAL1700 was transferred to the R17 controller without applying merging target procedures.
- When the R93 controller recognized the conflict, the controller attempted to confirm the assigned altitude for ASH5614 but did not issue a safety alert.

