



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

July 29, 2015

Group Chairman's Factual Report

SURVIVAL FACTORS

**Addendum 1 – Firefighter Interviews and Control Tower Statements
ERA14MA271**

A. ACCIDENT

Operator : Arizin Ventures LLC
Airplane : Gulfstream Aerospace G-IV [N121JM]
Location : Bedford, MA
Date : May 31, 2014
Time : 2140 eastern daylight time (EDT)¹
NTSB # : ERA14MA271

B. SURVIVAL FACTORS GROUP²

Chairman : Peter Wentz
National Transportation Safety Board
Washington, DC

Member : Ted Costa
Massachusetts Port Authority / Logan
Boston, MA

Member : Phillip Davenport
Federal Aviation Administration
Washington, DC

Member : Keith Leonhardt
Massachusetts Port Authority
Bedford, MA

C. SUMMARY

On May 31, 2014, about 2140 eastern daylight time, a Gulfstream Aerospace Corporation G-IV, N121JM, operated by Arizin Ventures, LLC, crashed after a rejected takeoff and runway excursion at Laurence G. Hanscom Field (BED), Bedford, Massachusetts. The two pilots, a flight attendant, and four passengers were fatally injured. The airplane was destroyed by impact forces and a postcrash fire. The personal flight, which was destined for Atlantic City International Airport (ACY), Atlantic City, New Jersey, was conducted under the provisions of 14 *Code of Federal Regulations Part 91*. An instrument flight rules flight plan was filed. Night visual meteorological conditions prevailed at the time of the accident.

¹ All times in this report are eastern daylight time, based on a 24-hour clock.

² Not all group members were present for all activities.

D. DETAILS OF ADDENDUM

This addendum contains additional interviews of the Hanscom AFB firefighters and written statements from BED Control Tower personnel.

E. LIST OF ATTACHMENTS

Attachment 1: Firefighters Interview Summary

Attachment 2: BED Control Tower Personnel Statements

Attachment 1: Firefighters Interview Summary

Interviewee: Jeff Forcier (Hanscom AFB Fire Department Dispatcher)

Date / Time: May 21, 2015 5:35pm – 6:10pm

NTSB Accident # ERA14MA271

Location: Telephone interview

Representative: Robert Hildreth (Hanscom AFB Fire Chief)

Present: Peter Wentz (NTSB AS-60), Phillip Davenport (FAA AAS-300), Keith Leonhardt (MassPort Bedford), Ted Costa (Massport Logan)

Dispatcher History: Mr. Forcier started working for Hanscom AFB Fire Department on October 9, 2012; his duties include working as both a dispatcher and firefighter. Prior to working for Hanscom AFB, Mr. Forcier dispatched for the Maryland National Institute of Health.

Training: Mr. Forcier’s initial dispatcher training was a 3 day 911 training course in 2012. He attends a recurrent dispatcher training course annually. In addition he completes an annual computer based training (CBT) dispatcher course.

On May 31, 2015 Mr. Forcier was on shift from 5:30pm to 5:30am, he stated that around 9:30pm a call came in on the crash phone from the control tower stating an airplane went off the end of the runway, the controller relayed the number of the runway that the crash had taken place. He stated once the firefighters departed the fire station they realized where the airplane was located by the smoke in the sky. Mr. Forcier then started making phone calls to the fire chief, off duty firefighters and his supervisor. He also made phone calls to the Hanscom AFB command post, most of his phone calls went straight to voice mail, it was a Saturday and late in the evening. He didn’t have time to leave a long message, so he kept it short and waited for call backs. At the same time he was handling all radio communications for the firefighters on scene. His supervisor showed up about 1 hour 30 minutes after notifying her and she assisted him in the alarm room with taking phone calls from outside agencies and news media. He set up gate duty with the security police from Hanscom AFB to help escort vehicles to the flight line. He asked his supervisor to contact mutual aid fire departments to get station coverage for the Hanscom AFB in case there was an emergency call on the AFB.

Mr. Forcier was asked if the dispatchers were provided a procedures book to follow once a call came in of an airplane accident. He stated he “was not 100% sure” he also stated he used a run chart to track the type of emergency that was taking place at the time of the call. He was then questioned what a run chart was, he stated it’s a computer chart that the dispatcher would use to log firefighter requests or other radio activities during an emergency. He stated he would type it

into the computer unless he had multiple activates going on, then he would make notes and log it into the computer at a later time.

Mr. Forcier was asked how the crash phone operated. He stated that when a call comes in for an emergency, the dispatcher would pick up the phone and push a button on the receiver so the call would be transmitted over the speaker in the fire station. The public address speakers are located throughout the station so everyone in the building can hear the conversation. The phone is tested once a day at the same time each day.

Mr. Forcier was asked how he knew if each firefighter was alerted that an accident had happened on the field. He stated that after hanging up the crash phone he repeated the emergency and runway number over the public address system in the fire station.

Mr. Forcier was asked if any other dispatcher worked during this accident, he stated that his shift was from 5:30pm to 5:30am and was the only dispatcher on duty during this accident.

Mr. Forcier was asked how a dispatcher would finalize the run chart. He stated that once he reviewed the chart and made any correction necessary he would close out the log and it would save and store in the computer. He was asked if changes could be made to the log once it is saved. He stated that he could pull it back up and make changed but was unsure it changes could be made at a later date.

Mr. Forcier was asked if he knew why the tower recalled the fire department after the initial call on the night of the accident, he stated the towers second call was to confirm he heard all of the information from the first call.

Mr. Forcier was asked if he wanted to provide any additional information about the accident that would help the investigation. He stated that it would be helpful to have an actual list of phone number at the dispatcher's desk to follow from most important to least important personnel to be notified. Mr. Forcier was asked if a contact list had been constructed after the accident, he stated "no".

Mr. Forcier was asked if he had any firefighter training, he stated that he had been trained as both a firefighter and a dispatcher.

Mr. Forcier was asked who provided his dispatcher recurrent training, he stated the training was provided by the state of Massachusetts.

Interview: Paul A. Seguin, Assistant Fire Chief of Operations, Hanscom AFB, Bedford, MA

Date: 17 June 2015 11:36am – 12:07pm

Location: Fire Station, Hanscom AFB, Bedford, MA

Representative: Duty Chief Dan Dillon

Present: Peter Wentz (NTSB), Keith Leonhardt- Massport, Ted Costa- Massport Fire (BOS) Phillip Davenport – FAA (Teleconference)

Mr. Seguin stated he was retired US Air Force fire protection for 20 years. He hired into the Hanscom Air Force Base Fire Department on February 14, 2000. His first position was fire inspector, he then moved to hazmat officer, training officer and finally Assistant Chief of Operations in 2006.

Mr. Seguin stated he had been trained and certified as Fire Officer- training levels 1, 2, 3 and 4. Instructor- training levels 1, 2, and 3. Fire Prevention Officer- training levels 1, 2 and 3. Training Officer - training levels 1, 2 and 3 and received Federal Emergency Management Agency (FEMA) training 100, 300, 400, 500 and 700.

Mr. Seguin stated he was heading towards the bunk room when the crash phone rang down “crash crash crash” he came out to the structural stalls where firefighters asked him who should respond, he stated “roll the fleet” and at that point he got into Command vehicle 2 and open the door. As soon as the door opened he recalls seeing a glow in the sky from the fire. While driving toward the fire he recalls Rescue vehicle 3 driving alongside him with the two ARFF vehicles back behind him. He kept driving at a good rate of speed until he approached the grass, he slowed down at that point and he could see a trail of fire coming from the ground structures that the airplane had hit in the grassy area beyond the runway. Once he parked at the scene he recalls MassPort 3 (Kerri) pulling up alongside Command 2, she immediately jumped into his truck and asked what she could do. At the same time he received a call from one of the Bedford engines that was coming through the gate asking what he needed. He told them to drive to the scene. He recalls that the ARFF vehicles had arrived and were fighting the fire. The tanker was supplying water to one ARFF vehicles and Engine 4 was supplying water to the other ARFF vehicle until they all ran out of water after the initial fire had been knocked down. Initially Mr. Seguin stated that Engine 4 dropped a resupply line as it passed the last fire hydrant near the FAA hangar on its way to the crash site. Later he corrected that statement recalling the ARFF trucks were being pumped water from the tanker and Engine 4 until all 4 vehicles ran out of water, he then called for the Engine 4’s driver and fire officer to drive back to the fire hydrant and drop a resupply line to the tanker while both ARFF vehicle and tanker remained at the scene. He stated he had put a request in to the dispatcher to recall off duty firefighter and mutual aid companies. Mr. Seguin stated Bedford Fire Department had already received a 911 call about an explosion that was reported to be in the campground area north of the airport. When the Bedford fire engine came

around the corner they could see it was not a fire in the campground but instead at the end of the runway. He stated they responded directly to the gate and came to the scene. They were followed by Lexington, Lincoln and a few others. Mr. Seguin asked the Bedford fire chief to take over accountability for all personnel showing up, he also started calling for trailers to get a rehab area set up. He asked for the Fire Academy of Massachusetts to be notified and to bring their trailer. He stated the State Police showed up and offered their trailer and also called the Red Cross to come out. At this point things were starting to come together, he had firefighter showing up and reporting in at the station. He stated that they used a lot of foam and water on the airplane because the foam was landing in the Shawsheen River and drifting down stream away from the fire scene. He also stated the amount of fuel spilling out of the aircraft would keep catching on fire because magnesium was burning within the wreckage. He stated the magnesium was hard to put out so the ARFF vehicles kept fogging it to keep the fire knocked down. At that time he had received a report that there were 7 souls onboard and looking back behind the runway he could see the landing gear lying in the grass, he didn't know if anyone had bailed out of the airplane so he set up a crew to search along the runway but no one was located. Chief Dillan showed up and reported on scene, he briefed Chief Dillon and handed over incident command to him while Mr. Seguin remained with the operations group. At that point he recalls Rescue 3 going on the other side of the river with a team from Massport to check on survivors, they got on top of the cockpit and smashed the window, but reported that there were no survivors.

Mr. Seguin was questioned about the Hanscom AFB training policy on ARFF vehicle water resupply. He stated the policy was to drop a resupply line as soon as possible and then have personnel hook it up as soon as possible to an engine or tanker. He was also questioned about the use of grid maps. He stated that each fire vehicle should have a grid map in their vehicle, but didn't know if the map contained gate locations. When asked if he used the grid map the night of the accident to help locate airport gates or off airport roads he said that he did not use the grid map at all that night. Instead he was following a checklist that was stored on a computer in the Command 2 vehicle. Mr. Seguin was questioned about requesting Engine 6 to go out the Hartwell gate to get to the back side of the river, but was corrected by the MassPort representative who clarified that they would not be able to reach the airplane from the Hartwell gate and she provided the proper route to gain access to the off airport road that would provide access.

Interview: Chad Harmon, Driver/Operator, Hanscom AFB, Bedford, MA

Date: 17 June 2015

Location: Fire Station, Hanscom AFB, Bedford, MA

Representative: Deputy Dan Dillon

Present: Peter Wentz (NTSB), Keith Leonhard- Massport, Ted Costa-
Massport Fire (BOS)

Mr. Harmon stated he has worked for Hanscom Air Force Base Fire Department since 1991.
Mr. Harmon stated he had been trained as a driver/operator at Hanscom AFB.

Mr. Harmon initially completed a written statement and was asked a follow up question about resupplying water to the accident scene. He stated that he initially drove past the fire hydrant at the FAA building on the way to the scene. He stated that Tanker 7, Engine 4 and both ARFF Crash vehicle ran out of water after the initial attack and he and his fire officer were sent by the incident commander back to the fire hydrant to drop a line to resupply tanker 7. He stated he pulled up to the hydrant and his fire officer wrapped the 5 inch line around the hydrant, he proceeded towards Tanker 7 but did not have enough 5 inch hose to make it all the way to Tanker 7. He stated the remaining hose was pulled off Tanker 7 and one of the two ARFF Crash vehicles to complete the resupply line to Tanker 7.

Interview: John Carloni, Driver/Operator/Hazmat Technician, Hanscom AFB, Bedford, MA

Date: 18 June 2015

Location: Fire Station, Hanscom AFB, Bedford, MA

Representative: Firefighter Chris Sprague



Present: Peter Wentz (NTSB), Keith Leonhard- Massport, Ted Costa- Massport Fire (BOS) Phillip Davenport – FAA (Teleconference)

Mr. Carloni stated he has worked for Hanscom Air Force Base Fire Department for 8 years. He was retired US Navy firefighter and also worked as a firefighter for OTIS.

Mr. Carloni stated he had been trained as a driver/operator at Hanscom AFB and received firefighting training from the US Navy.


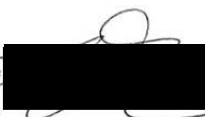
Mr. Carloni stated he was asleep in the bunk room when the crash phone rang down. He reported to ARFF Crash 9 and put on his gear. He opened the door and waited for his rider, Crew Chief Maria Pimental. He stated seeing a large glow in the sky towards the east. He drove ARFF Crash 9 out of the station towards taxiway C and E then down the service road toward the FAA building. He stated that ARFF Crash 10 was just ahead of him about 50 feet and once he got to the grass area just past the FAA building parking lot he turn to the left to put out a few spot fires about 100 feet in front of the main fire while ARFF Crash 10 went straight. Mr. Carloni was questioned about how long the water supply in ARFF Crash 9 lasted; he stated that ARFF Crash 9 held 3300 gallons of water and that he had selected low flow setting which was 750 gallons a minute to conserve water. He stated it was difficult to see where the water was going because the airplane was in a deep hole. He stated the fire was about 100 feet by 100 feet and 200 feet high. He stated he knocked down the spot fires in front of him before hitting the airplane and that it took 4 to 5 minutes to extinguish the major fire in the ravine. He stated that his water supply onboard lasted “about 4 minutes or so”; he was then resupplied with water from Tanker 7. Mr. Carloni stated that Tanker 7 spilt a line and supplied both ARFF Crash 9 and 10. Mr. Carloni was asked if ARFF Crash 9 ever ran out of water, he recalls the low water alarm coming on, but doesn’t recall if the ARFF vehicle ran out of water during the event. He stated the low water alarm comes on when 500 gallons is remaining in the tank. Mr. Carloni was questioned about how long after the initial call was made to when he noticed the first mutual aid companies arriving on scene. He stated it was about 45 minutes to one hour. Mr. Carloni was asked how far behind Command 2 and Rescue vehicle 3 he was when traveling to the scene, he stated he only saw ARFF Crash 10 who was 50 feet in front of him while driving to the scene. Mr. Carloni was asked if he used any other agent that was supplied on the ARFF Crash vehicle; he stated he only used the foam and water and that he did not use the dry chemical. Mr. Carloni was asked if he used the grid map in his vehicle, he stated he knows the airfield and did not use the grid map.

Attachment 2: BED Control Tower Personnel Statements

 DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION PERSONNEL STATEMENT		1. Name of Reporting Facility: KBED	2. Report Number: BED-ATCT-0014
		3. Aircraft Identification and Type: N1215M GULF4	
4. Location of Accident/Incident: BEDFORD MA		5. Date/Time of Accident/Incident (UTC): JUNE 01 2014 0140Z	
6. Name (Operating Initials): CHES MERRILL (KP)	7. Title: OS	8. Position and Time (UTC): LC 0125-0300	
9. Complete in accordance with FAA Order JO 8020.16, Air Traffic Organization Aircraft Accident and Incident Notification, Investigation, and Reporting, Paragraph 91, FAA Form 8020-26, Personnel Statements. The purpose of this statement is to provide any facts within your personal knowledge that will provide a complete understanding of the circumstances surrounding this accident/ incident. Speculations, hearsay, opinions, conclusions, and/or other extraneous data are not to be included in this statement. This statement may be released to the public through The Freedom of Information Act or litigation activities including pretrial discovery, depositions, and actual court testimony. This statement is to be hand printed and signed by you, and your signature below certifies the accuracy of this statement. It will neither be edited nor typed and, once signed, will constitute your original statement.			
10. Text of Statement: <input type="checkbox"/> ORIGINAL <input checked="" type="checkbox"/> SUPPLEMENTAL <div style="text-align: center;"> <input checked="" type="checkbox"/> COMMENT <input type="checkbox"/> NO COMMENT </div> <p>THE FOLLOWING ANSWERS ARE IN RESPONSE TO BOB HENDRICKSON'S (OFFICE OF ACCIDENT INVESTIGATION DOT/FAA/AVP-100) INQUIRY REGARDING "THE GULFSTREAM INCIDENT AT HANSLOM FIELD BALK IN MAY 2014".</p> <p>1) YES. I OBSERVED N1215M BECOME ENGULFED IN FLAMES.</p> <p>2) GIVEN THE SPEED AT WHICH N1215M WAS TRAVELLING DOWN RUNWAY 11 AND THE TIME I OBSERVED THE GIANT FIREBALL, MY EDUCATED GUESS WOULD BE ALMOST INSTANTANEOUSLY.</p> <p>3) REFERENCE THE NTSB ACCIDENT REPORT FOR N1215M, SURVIVAL FACTORS ATTACHMENT II: AT 21:40:40 NOTE: "ATC STEPS ON AIR FORCE FIRE AS AIR FORCE FIRE ACKNOWLEDGES MESSAGE." I PLACED A SECOND CALL TO VERIFY RECEIPT OF NOTIFICATION.</p>			
11. Signature of Witness: 		12. Date of Signature: 06/25/2015	

FAA Form 8020-26 (12-10) Supersedes Previous Edition

Electronic Version

 DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION PERSONNEL STATEMENT	1. Name of Reporting Facility: KBED	2. Report Number: BED-ATCT-0014
	3. Aircraft Identification and Type: N121JM G-LF4	
4. Location of Accident/Incident: Bedford, MA	5. Date/Time of Accident/Incident (UTC): June 1, 2014 ; 0140Z	
6. Name (Operating Initials): Brad Clark (BC)	7. Title: ATCS	8. Position and Time (UTC): FD/CD/GC/CIC-0050-0300Z
<p>9. Complete in accordance with FAA Order JO 8020.16, Air Traffic Organization Aircraft Accident and Incident Notification, Investigation, and Reporting, Paragraph 91, FAA Form 8020-26, Personnel Statements. The purpose of this statement is to provide any facts within your personal knowledge that will provide a complete understanding of the circumstances surrounding this accident/incident. Speculations, hearsay, opinions, conclusions, and/or other extraneous data are not to be included in this statement. This statement may be released to the public through The Freedom of Information Act or litigation activities including pretrial discovery, depositions, and actual court testimony. This statement is to be hand printed and signed by you, and your signature below certifies the accuracy of this statement. It will neither be edited nor typed and, once signed, will constitute your original statement.</p>		
<p>10. Text of Statement: <input type="checkbox"/> ORIGINAL <input checked="" type="checkbox"/> SUPPLEMENTAL</p> <p style="text-align: center;"><input checked="" type="checkbox"/> COMMENT <input type="checkbox"/> NO COMMENT</p> <p>The following are responses are to questions received via e-mail for follow up regarding the "Gulfstream incident at Henscom Field."</p> <p>1) I observed N121JM, G-LF4, become engulfed in flames.</p> <p>2) I don't recall a specific time lapse between when the aircraft came to rest and it became engulfed in flames.</p> <p>3) A second call was placed on the crash phone to verify receipt of notification.</p>		
11. Signature 	12. Date of Signature: 30 JUN 2015	