

Factual Report - Attachment 1  
Controller Interview Summaries

**AIR TRAFFIC CONTROL**

ERA19FA188

**Interviewee:** Jaclyn Robertucci (JP)  
**Representative:** Brian Shallenberger - NATCA FACREP

**Date / Time:** June 12, 2019 / 1540 eastern daylight time (EDT)  
**Location:** Washington Air Route Traffic Control Center (ZDC ARTCC)  
**Present:** Paul Suffern - NTSB (Via TELCON), Brent Eberhart - FAA, and  
Karena Marinas - NATCA  
**Investigator:** Brian Soper - NTSB

During the interview, Ms. Robertucci provided the following information:

She began working at ZDC ARTCC in 2013 and was a certified professional controller (CPC). She was a qualified on the job training instructor (OJTI) and had not been on any recent details outside the facility.

She described her overall health as "good," with no waivers or restrictions to her medical clearance and had not taken any prescription or other medications on the day of the accident. In the past 12 months she had no significant changes to her health, finances, or personal life, good or bad, that would have affected her performance on the day of the accident.

A relief briefing was conducted when she assumed the position. The briefing was recorded, and a checklist was utilized. She recalled there had been bad ride reports in the sector with pilots deviating around weather that was depicted on her radar display, as well as around weather that was not depicted on her radar display. On a scale of 1 to 5 (5 being the heaviest) she classified the traffic volume as 3-4 around the time she was providing services to N709CH. On a scale of 1 to 5 (5 being the most complex) she classified the traffic complexity as 4 around the time she was providing services to N709CH. She considered the traffic volume normal for the time of day and tempo of operations, however considered the complexity to be greater than normal.

She recalled the weather conditions around the time of the accident as being IMC<sup>1</sup> with two cells to the north of Raleigh, NC that were kind of split with one in sector 38 airspace and one in sector 36 airspace. There was moderate to heavy precipitation and other aircraft were deviating around it and said the deviations had just begun around the time of the accident. She had received the pre-duty weather briefing (PDWB) and nothing specifically "stuck out."

Ms. Robertucci provided the following recollection surrounding the time of the event:

---

<sup>1</sup> IMC - Instrument Meteorological Conditions - Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling less than the minima specified for visual meteorological conditions.

She remembered noting before N709CH had checked in that the flight plan required preferential routing to be applied and issued, which she did upon initial contact with the accident pilot. The pilot had questioned the routing because of weather in the airspace (which was also depicted on her radar display). She felt her discussion with the pilot had covered everything, and that if the pilot needed further information or assistance, he would have asked for it. When N709CH was about halfway through her sector, the pilot began asking about the weather near Richmond, VA (RIC) so she adjusted her display to look at what was being depicted in that area. She could see that N709CH would likely need to fly between weather she could see depicted in the vicinity of RIC, and an active restricted area, so she offered him routing that would keep him clear of RIC and the restricted area. At that time, there were between 6-8 aircraft in the south side of the sector and everyone was complaining about rides in the thirties (altitudes in the 30,000-39,000-foot stratum). Shortly after, the accident pilot called back and was interested in the routing she had suggested so she issued him the amended routing. The accident pilot then requested a tops report, but she did not have any at the time. She remembered he was in the displayed precipitation and asked for a 30° deviation to the right, which she approved with instructions to proceed direct Franklin (FKN) when able. She immediately notified her supervisor upon losing radar and radio communications with the accident aircraft.

The group (identified below as "NTSB") then asked Ms. Robertucci a series of questions and the following summarizes the questions asked, and answers provided:

NTSB: Did you think the accident pilot sounded concerned with the weather?

JP: Not in sector 38 airspace but did feel he was concerned with the weather over the vicinity of RIC.

NTSB: Did anything about the weather alarm you with regards to the accident aircraft being able to fly through it?

JP: No, nothing seemed problematic with the pilot being able to transition through.

NTSB: Why did you not advise the pilot of the precipitation you had displayed?

JP: She believed the conversations she had with the pilot about the weather had covered it and believed the re-routing she had issued would keep him clear of most of it.

NTSB: What is the Safety Blitz?

JP: It was a briefing that controllers received that discussed where the facility may be lacking or was in need of improvement.

NTSB: What do you remember from the most recent Safety Blitz?

JP: Traffic alerts and calling weather, but it focused a lot on issuing traffic alerts.

NTSB: Are these repetitive ongoing briefings or do they differ?

JP: Yearly briefings. In the past they were usually several hours long, more like a class, and would include different presentations and videos with examples of ATC situations. The most recent one was about an hour long and was more like a briefing than a class.

NTSB: What is your general opinion about the pre-duty weather briefings (PDWB) here?

JP: She did not find them helpful. In the beginning she was interested, but as time went on it did not seem that it affected the operation at all.

NTSB: How do you feel the PDWB could have an affect in the operation?

JP: As a controller she was really not sure what to do with the information and felt that controllers were just trying to keep traffic moving.

NTSB: What kind of weather information do you get that is useful and where do you get it from?

JP: Mainly from pilots, whatever precipitation is displayed on the radar display, and from SIGMETs<sup>2</sup> and AIRMETS<sup>3</sup>.

NTSB: Did you have any feeling or sense anything "off" regarding the accident flight or pilot?

JP: She knew the pilot seemed nervous about the weather around RIC, but other than that he seemed confident, capable, and respectful.

NTSB: Did you have a D-side [radar associate controller] working with you?

JP: Yes.

NTSB: What does a D-side controller do here?

---

<sup>2</sup> SIGMET - Significant Meteorological Information - A weather advisory issued concerning weather significant to the safety of all aircraft. SIGMET advisories cover severe and extreme turbulence, severe icing, and widespread dust or sandstorms that reduce visibility to less than 3 miles.

<sup>3</sup> AIRMET - Airmen's Meteorological Information - In-flight weather advisories issued only to amend the area forecast concerning weather phenomena which are of operational interest to all aircraft and potentially hazardous to aircraft having limited capability because of lack of equipment, instrumentation, or pilot qualifications.

JP: Coordinate and help with routes. She had spoken briefly with the D38 controller about N709CH's route and the D38 controller was doing a lot of coordinating.

NTSB: When we reviewed the playback, we heard you do some coordination, was that because the D-side was busy?

JP: Yes, but she also felt like it was something that she should coordinate personally and that it should be done directly by her controlling the issue (not related to the accident aircraft). Since ZDC ARTCC controllers do not always work with D-sides, she was the kind of person that found it easier to just do things herself rather than having to explain it to someone so they could do it.

NTSB: Do you remember what the weather was in the sector to the south of yours at the time you were talking to N709CH?

JP: Not at the time, she had worked sector 38 most of the day (two or three times).

NTSB: As the sector started to get busier around the time of the accident, was that normal traffic flow or was it related to the increased deviations for weather?

JP: Sector 38 had a one o'clock push and said that was standard on Fridays. She remembered thinking or even stating how it seemed the aircraft coming from Jacksonville was not normal or was slightly abnormal.

NTSB: Did you ever make a tops request?

JP: No, she did not remember having any planes in the area to request one from. She believed a Southwest flight deviated around it but could not recall how many others did. A lot of the traffic she was working was clear of that area.

NTSB: We heard about a program here called "The Walker Program," what is that about?

JP: Area 2 gets busy during thunderstorms because they tunnel a lot of traffic. Management thought having someone walking the floor with the supervisor to give ideas and help with route situations and planning would be helpful. A controller in-charge (CIC) was linked up with a front-line manager (FLM) during nights with heavy traffic so they could help the supervisor since the CICs worked the airspace and knew how to manage the traffic.

NTSB: Since you have been working at ZDC ARTCC, do you recall receiving weather-related training?

JP: Not specifically, other than training to make sure controllers were calling weather. No meteorological education training. There was training for debunking the controller belief that pilots had better weather radar than ATC

did. She knew that controllers had been briefed on how pilots see weather on their radar and how pointing their aircraft nose toward a hole could help them see it on radar.

NTSB: We do not recall you soliciting any PIREPs<sup>4</sup> during the playback we reviewed, but did hear some ride reports from pilots, how many were entered as PIREPs by the D-side?

JP: She could only recall one PIREP and it was in sector 36 airspace. She advised sector 36 of moderate chop being reported from 30,000-38,000 feet. Prior to that session, she had a chart from a controller that had previously worked the position mapping out rides but ended up deleting it because the rides were changing so fast it was not accurate. She advised pilots that she knew they had chop in the "30's" and she was trying to work it, but her main priority was keeping airplanes separated.

NTSB: Do you recall if the accident pilot commented on having weather radar on board?

JP: No, but he seemed to be aware of the weather and had asked about specific weather areas twice.

NTSB: When it comes to SIGMETs, CWAs<sup>5</sup> and other weather advisories, you currently receive those via the EDST<sup>6</sup> correct?

JP: Yes, and controllers were responsible for noticing when a new one populated which only occurred visually, there was no alarm, it was just part of the controller's scan.

NTSB: When you receive a new advisory like a SIGMET on the EDST, do you keep it, or do you suppress it?

JP: She normally suppressed it, and it would go away.

---

<sup>4</sup> PIREP - Pilot Weather Report - A report made by a pilot of meteorological phenomena encountered by an aircraft in flight.

<sup>5</sup> CWA - Center Weather Advisory - An aviation weather warning for conditions meeting or approaching national in-flight advisory (AIRMET, SIGMET or SIGMET for convection) criteria. The CWA is primarily used by air crews to anticipate and avoid adverse weather conditions in the en route and terminal environments.

<sup>6</sup> EDST - En Route or ERAM Decision Support Tool - an en route decision support tool that is used by the sector team in performing their strategic planning responsibilities. EDST uses flight plan data, forecast winds, aircraft performance characteristics, and track data to derive expected aircraft trajectories, and to predict conflicts between aircraft and between aircraft and special use or designated airspace. Applicable hazardous inflight weather advisories and urgent PIREPs are displayed on the EDST display at the controller workstation as well.

NTSB: When you broadcast a SIGMET do you read the SIGMET, or do you just advise that it is available on HIWAS<sup>7</sup>?

JP: She would broadcast the numbers, valid times, region and/or coastal waters.

NTSB: What is your expectation of what a pilot does with SIGMET information when you provide it?

JP: She did not think they did anything with the SIGMET information.

NTSB: Do you feel there is important information in weather advisories (i.e., SIGMETs, AIRMETs, CWAs)?

JP: Yes.

NTSB: Do you feel there is a better way to disseminate weather advisories?

JP: She did not know.

NTSB: Do you usually know where the affected areas are by reading a SIGMET?

JP: She usually knew by looking at the weather being displayed on the scope [radar display].

NTSB: Do you feel there would be any value in being able to view the graphical display of SIGMET boundaries on the radar display if they could be toggled on/off?

JP: She did not think that would help; controllers usually knew the weather areas that SIGMETs were describing.

NTSB: Do you receive any type of update to the PDWB throughout your shift?

JP: No - unless she heard something in passing.

Thinking back on the event, if the pilot had asked the question earlier that he asked her in the middle of the sector, she could have re-routed him earlier and he may have been clear of the thunderstorm cell. Also, she did not notice their may have been cells over FKN when she issued direct FKN.

NTSB: Is there ever a point when you are working traffic when you go back and wonder if the pilot really grasped what you had told them?

JP: If she called the weather, and the aircraft was still far away from it, or if a decision to deviate may affect her traffic flow, she might revisit it. There were other sectors that did not have the ability to allow for deviations, so she liked to nail them down early.

---

<sup>7</sup> HIWAS - Hazardous Inflight Weather Advisory Service - Continuous recorded hazardous inflight weather forecasts broadcasted to airborne pilots over selected VOR outlets.

NTSB: At one point the pilot requested a tops report, is there any other resource that you are aware of that you could obtain tops information besides another pilot?

JP: Not that she was aware of.

Interview concluded at 1645 EDT.



**Interviewee:** Stavros Gavrilellis (GA)  
**Representative:** Brian Shallenberger - NATCA FACREP

**Date / Time:** June 13, 2019 / 0845 EDT  
**Location:** ZDC ARTCC  
**Present:** Paul Suffern - NTSB (Via TELCON), Brent Eberhart - FAA, and  
Karena Marinas - NATCA  
**Investigator:** Brian Soper - NTSB

During the interview, Mr. Gavrilellis provided the following information:

He began working at ZDC ARTCC in September 2017 and was still a developmental controller. He held no collateral duties and had not been on any recent details.

He described his overall health as "good," with no waivers or restrictions to his medical clearance and had not taken any prescription or other medications on the day of the accident. In the past 12 months he had no significant changes to his health, finances, or personal life, good or bad, that would have affected his performance on the day of the accident.

A relief briefing was not conducted when he assumed the position as he was opening a position previously closed. He recalled around the time of the event that aircraft had been deviating around weather that was not depicted on his radar display, and they were all wanting to get down from the 30's and into the 20's [from the 30,000-39,000-foot altitude stratum to the 20,000-29,000-foot altitude stratum]. On a scale of 1 to 5 (5 being the heaviest) he classified the traffic volume as 3-4 around the time of the accident. On a scale of 1 to 5 (5 being the most complex) he classified the traffic complexity as 4-5 around the time the time of the accident. He considered the traffic volume normal for the time of day and tempo of operations, however considered the complexity to be greater than normal.

He recalled an area of moderate to heavy precipitation on the northwest corner of the sector and that there were SIGMETs and CWAs that he had pulled up on the EDST and the R38 controller had broadcasted them. There were aircraft deviating both east and west of the Tar River VOR<sup>8</sup> and everyone one wanted to begin their descent. He had received the PDWB at about 0630 that morning and did not recall there being anything about significant pop-up thunderstorms for the afternoon; if anything, may have mentioned showers in the northwest portion of ZDC ARTCC airspace.

---

<sup>8</sup> VOR - VHF Omni Directional Radio Range - A type of short-range radio navigation system for aircraft, enabling aircraft with a receiving unit to determine their position and stay on course by receiving radio signals transmitted by a network of fixed ground radio beacons.

Mr. Gavrilellis provided the following recollection surrounding the time of the event:

He had just sat down and believed there was an Avianca flight near Tar River that was already deviating and reported moderate turbulence at FL330. He entered that PIREP into ERIDS<sup>9</sup>. N709CH continued north and the R38 controller issued the assigned preferred routing. A little time went by and there was a string of aircraft coming from Jacksonville (ZJX) ARTCC. N709CH was about 30-40 miles ahead of the ZJX ARTCC traffic. As the aircraft were checking in, they all wanted left and right deviations around something that still was not depicted on their ATC radar displays, and all of them were wanting to descend out of FL350-370 to FL290. These deviations required point outs to sectors 35 and 39. He was putting the deviations into the 4<sup>th</sup> line of the radar data blocks and initiated the point outs.

Later, N709CH was about 60 miles south of the weather that was depicted on the ATC radar display and did not recall who initiated the conversation about the weather (accident pilot or R38 controller), but believed it was the pilot who asked about weather over the RIC area outside of their airspace.

The group (identified below as "NTSB") then asked Mr. Gavrilellis a series of questions and the following summarizes the questions asked, and answers provided:

NTSB: At one point you looked up an alternate course or routing for him to get around weather which the R38 controller relayed to the pilot, and it took him some time to get back, do you recall when he did come back and accept the alternate routing and at any point did you look again to make sure the alternate routing would keep him clear of the displayed weather?

GA: He believed the pilot said he would take it and then just keyed in the new route. He did not go back and check because he did not have the DIK (display interface keypad) on his side. When he ran out the route line, he believed it was still east of the weather and thought the aircraft might still need a slight right deviation to clear.

NTSB: Have you worked with that particular R38 controller a lot?

GA: Yes, they were in the same crew last year, both in training and when certifying on the D-sides.

NTSB: In your experience working with her, do you feel that it is normal for her to NOT call precipitation when displayed?

---

<sup>9</sup> ERIDS - En Route Information Display System - An interactive touchscreen display system utilized in Air Route Traffic Control Centers to give air traffic controllers direct access to pertinent air traffic control related information on position.

GA: He was offline coordinating and could not say 100% whether she did or did not call the weather. He believed when the pilot called back to accept the FKN routing, he was not in the precipitation, but at the point he called and requested tops information he was in the rain at that time.

NTSB: If you are talking to a pilot that is deviating around weather, do you feel like you need to call the weather?

GA: His trainers made sure he always issued it unless he got a report for well above or below the aircraft. He would call it if he believed it to still be a factor. He has called displayed weather many times and had the pilot respond that it was well below them.

NTSB: Do you ever manipulate the altitude stratum or filters for weather beyond the required '240 and above'?

GA: The two sectors that he trained at were often combined, and the weather [altitude filter] was always set to 'SFC to 999', so not necessary because he just kept his preferred settings for them all the time.

NTSB: This pilot asked for tops; regarding this request, do you know anywhere else you could get tops information besides through pilot reports?

GA: At the sector itself, he did not believe he had access to that information quickly. He was sure the CWSU (Center Weather Service Unit) might have an estimate but when he was working, he did not know if he could get that quickly. He thought there was a dial code (intrafacility communications) to contact the CWSU but did not know the code.

NTSB: So, you received the PDWB that day, do you feel they have been helpful or not helpful?

GA: They have been relatively helpful within the first 4-to-5-hour window of getting them. However, when he came in at 1800 it was still the one from 0530, so not that helpful then. It was relatively helpful and accurate regarding IFR conditions, winds aloft, etc.

NTSB: Is there anything that could make the PDWB more useful aside from the timeliness?

GA: He said that when working the position, you could see the precipitation or have reports from aircraft, but you can only see the actual precipitation, you cannot see the build-up. The PDWB was not necessarily where they needed more, but direct access to the information on position would be very helpful.

NTSB: Would lightning data available on the display be beneficial?

GA: No, it would just clutter the screen. If there was something that could tell the

relative movements of storms or cells, that would be helpful.

NTSB: Do you get updates from the TMU<sup>10</sup> or supervisors throughout the day?

GA: Most weather updates he received on position were from displayed weather or pilot reported weather. It was not like something changed and the CWSU came looking for them to let them know. Nobody announces updates as the day progresses, it was just captured through the position relief briefings.

NTSB: Do you notice any difference in the morning and evening weather briefings?

GA: In the morning the brief was more wide-ranging and, in the afternoon, the weather had already been building so the information seemed more specific.

NTSB: In your training on R-side positions, are you encouraged to ask for tops reports?

GA: He might do it on his own sometimes out of his own curiosity. Sometimes pilots requested higher or lower to get out of a layer to visually see better. Earlier on the day of the accident when he was training on the R-side, there were several aircraft around Raleigh requesting deviations, and several without issues.

NTSB: What kind of weather training have you received?

GA: Safety Blitzes that go over weather, when he was in R-school, they had a weather lesson plan. Other general briefings that discussed changes about how to call a PIREP or issue weather. From his experience, the simulator problems in R-school would just have weather everywhere to get them used to calling it. As a CPC the training was mainly just on issuing and disseminating it.

NTSB: Have you been to any TMU briefings?

GA: No. He believed before getting two R-sides there was a requirement to do a day in TMU, but he had not done that yet. To his knowledge, other than the CICs, the rest of the staff did not go to those briefings.

NTSB: Who teaches the Safety Blitzes?

GA: It was a combination of the Local Safety Council (LSC), NATCA, and management.

---

<sup>10</sup> TMU – Traffic Management Unit - A non-control, coordination unit at the Air Route Traffic Control Center (ARTCC) connected to the central flow control function at the ATCCC and responsible for dissemination of flow control information at the local level, and interaction with national level flow programs.

NTSB: Does the LSC seem engaged and relevant?

GA: Yes, the LSC lead was really good at what he did and really knew the 7110.65. He asked a lot of questions during the Safety Blitzes and really hunkered down on the developmental controllers to ensure they knew what was expected of them.

NTSB: Who is on the LSC?

REP: [Answered by GA's representative] It was made up of two people, one NATCA and one management.

NTSB: Do you remember if weather was emphasized during your training at the FAA Academy?

GA: At the Academy they had a basics course from the meteorological aspect, what you could expect from thunderstorms, wind shear, lightning etc. During the radar portion of training, they only did D-side so there was no calling weather, the problems may have one or two aircraft that ask for deviations and they just had to coordinate those requests. Most of his weather knowledge came from college.

NTSB: With regards to training at ZDC, is it more or less compliance driven?

GA: Overall it was more reactionary. For him working, because of his educational background he understood more than some others. Most of the briefings were about how to get more information and how to gather it.

NTSB: With regards to the various displays in your area, what information is available to you?

GA: The TSD<sup>11</sup> monitors would show thunderstorm information and flow. The other monitor in the area just had a loop of the weather. He had never received any formal training on any of the informational displays.

NTSB: Do you know what resources are available to you to get a better weather picture?

GA: When they were busy, they were enculturated to separate airplanes, that was their job. He was more focused on keeping the targets separated. He said he could look all the way across the area at the weather display which showed the entire US, and if they could zoom in on a particular area that might be helpful. He did not know if they could pull up SIGMETs in ERIDS and read them.

---

<sup>11</sup> TSD - Traffic Situation Display - A tool used by Traffic Management Specialists and air traffic controllers to monitor the position of air traffic and to determine the traffic demand on airports and sectors.

NTSB: Right now, on the EDST, when an AIRMET or SIGMET populates do you get the full verbiage of the advisory?

GA: It would say what the SIGMET was, the valid time, the state abbreviations - which is the broad one. The CWA would show which one it is, the valid time, and will specify the particular area with VORs and mileage.

NTSB: What is your role with regard to weather advisory dissemination?

GA: As a D-side, he would pull them up for the R-side controller to read when they had time. From the R-side perspective as soon as he had one, he would read and then broadcast it when he had a moment.

NTSB: What do you do with the advisory after it has been read?

GA: He would click on them to show that they were read and leave them in the list. Some controllers would delete the advisory once they had been read. There were times they could accumulate a page and a half of information with advisories and other information like ground stops, which he did not understand why they received at all in a high sector, they were not clearing people for takeoff from airports.

NTSB: Do you know if you receive only SIGMETs and advisories applicable to your area, or do you receive ALL ZDC advisories regardless of area?

GA: He thought everyone received all of them from everywhere regardless of sector.

NTSB: Does it ever occur to you to re-read advisories to pilots who may have checked in after you had already broadcast it earlier?

GA: If it was a high sector, he could not re-read a SIGMET for aircraft. Part of it was having to assume everyone around them were also doing their jobs.

NTSB: Hindsight being 20/20, is there anything that comes to mind that may have been done differently that could have affected the outcome?

GA: He thought when they gave N709CH the alternate routing over FKN, he did not know if they might have led the pilot astray, but at the time they worked with what information they had available to them at that time, and it seemed like a good plan.

Interview concluded at 0955 EDT.

**Interviewee:** Jeremy Justice (XJ)  
**Representative:** Brian Shallenberger - NATCA FACREP

**Date / Time:** June 13, 2019 / 1250 EDT  
**Location:** ZDC ARTCC  
**Present:** Paul Suffern - NTSB (Via TELCON), Brent Eberhart - FAA, and  
Karena Marinas - NATCA  
**Investigator:** Brian Soper - NTSB

During the interview, Mr. Justice provided the following information:

He began working at ZDC ARTCC in September 2008 and was a certified professional controller (CPC). He held no collateral duties and had not been on any recent details.

He described his overall health as "good," with no waivers or restrictions to his medical clearance and had not taken any prescription or other medications on the day of the accident. In the past 12 months he had not had any significant changes to his health, finances, or personal life, good or bad, that would have affected his performance on the day of the accident.

A relief briefing was conducted when he assumed the position. The briefing was recorded, and a checklist was utilized. He recalled he had been running the overtime list to see if anyone could come in for the swing shift, which was short staffed due to sick calls, and did not recall exactly what he was doing when the accident occurred. On a scale of 1 to 5 (5 being the heaviest) he classified the traffic volume as 4-5 around the time of the accident in the area that was providing services to N709CH. On a scale of 1 to 5 (5 being the most complex) he classified the traffic complexity as 3-4 around the time of the accident in the area that was providing services to N709CH. He considered the traffic volume normal for the time of day and tempo of operations, however, could not speak to whether the complexity was normal or not.

He could not recall the exact SIGMETs that were active at the time but regarding the weather, recalled there being precipitation displayed in the area. He believed it was moderate to extreme northeast of Raleigh, about 20-40 miles wide, and further north was definitely moderate to heavy over the Richmond area, with a few cells out to the east.

Mr. Justice provided the following recollection surrounding the time of the event:

Typically, right around that time of day it was pretty intensive for CIC, to make sure the transition from day to swing would go off without a hitch, he was trying to

make sure if someone was going home, they were not at work past their go home time. The R38 controller yelled "I need to get out!" So, he checked the computer, thinking she meant she was due to go home, then she yelled again that she needed to get out because she "lost a plane." They had extra D-sides (radar associate controllers) training, so he sent another CPC in the area to relieve her right away. The R38 controller was able to talk to the FLM. Meanwhile, other controllers helped with marking the last known position of the airplane. He pulled the sector up on an empty display and marked the last known position of the aircraft (3608N, 7800W), and drew a circle on it. He then obtained a copy of the ALNOT<sup>12</sup> form to start filling it out. The FLM assisted in completing the ALNOT. He then went to Area 3 to check for ELTs<sup>13</sup> in the airspace below. Shortly after the R38 controller was relieved, another CIC walked back into the area, so he gave a quick position relief briefing and then focused on coordinating for the ALNOT, etc. After 15 minutes or so, he went back to area and gave the new CIC a formal recorded briefing, then went downstairs and tried to stay ahead of his thoughts.

The group (identified below as "NTSB") then asked Mr. Justice a series of questions and the following summarizes the questions asked, and answers provided:

NTSB: Do you guys typically have CICs or FLMs supervising the operation?

XJ: That was day two of a test with floor walkers, which was an extra set of eyes for heavier traffic and weather nights. So that was sort of new ground. He was not sure, what was exactly typical.

NTSB: Was there an FLM?

XJ: The FLM took sick leave at about noon and the night supervisor was on leave with only one night CIC so he was calling in overtime for the night CIC.

NTSB: How is your FLM staffing?

XJ: He thought they had three permanent supervisors. He did not know exactly, because he was travelling. He thought they were in the process of transitioning another one or two to his area.

NTSB: Is normal practice for CICs to fill out the ALNOT sheet and get that started?

XJ: He was not positive; everybody had their part to do, and he trusted himself to fill it out.

---

<sup>12</sup> ALNOT - Alert Notice - A request originated by a flight service station (FSS) or an air route traffic control center (ARTCC) for an extensive communication search for overdue, unreported, or missing aircraft.

<sup>13</sup> ELT - Emergency Locator Transmitter - A radio transmitter attached to the aircraft structure which operates from its own power source on 121.5 MHz and 243.0 MHz. It aids in locating downed aircraft by radiating a downward sweeping audio tone, 2-4 times per second. It is designed to function without human action after an accident.



NTSB: Were you told to do it or did you take it upon yourself?

XJ: He said that John Stowe had a copy of it and asked him to assist in filling it out. Most of the time Stowe was up at the desk coordinating and calling local and state police.

NTSB: How often do you work CIC?

XJ: Between 5-10 hours a week, 10 hours would be extreme, under 5 would be normal.

NTSB: When working CIC, do CWSU or TMU ever talk to you about weather?

XJ: There were two stand up briefings per day, but when he took over the desk there was no briefing from weather. He had called TMU shortly after taking position and let them know that weather was building in the area. Prior to the event, traffic and weather were discussed as far as major flows.

NTSB: When weather changes throughout the day, how do controllers get notified?

XJ: The PDWB broke down the weather once a shift. The rest of the time would be controller to controller during position relief briefings.

NTSB: What did you know about the deviations occurring in that sector?

XJ: He did not really know specifics. He was at the desk most of the time leading up to the event, coordinating the OT list. He called TMU in response to deviations but did not recall the exact timeline of things.

NTSB: When working CIC what interactions do you have with the Weather Coordinator (WC)?

XJ: It was not abnormal to call the WC in this facility. Most of the interactions were traffic or flow related. He would sometimes call them to discuss weather that was developing and impacted flows in his area. He trusted that they were already looking at it but would call just in case they were not.

NTSB: In the morning weather briefings, do you ever bring back info from the Briefings? If so, what do you do with that?

XJ: He might do one of those a month. He would disseminate information to the controllers working at the time and rely on position relief briefings to relay from controller to controller beyond that. He was not trained to relay the info and there was no set process.

NTSB: When a FLM comes back from the briefing is there any info that is relayed to you in the area?

XJ: Not typically.

NTSB: As far as the TSDs in the area, do you control what is on those?

XJ: Typically, they had about 2/3 of the east coast displayed, and the last hour or so, of weather that rotated through. As CIC he did not typically change them, he would just leave them to update as the day progressed.

NTSB: As CIC you do have the option to change stuff?

XJ: There was one large screen that had the weather information displayed above the FLM desk. There were two TSDs on the back wall, one on the left with restrictions and outages, and the one on the right was split with NY flow on left side and DC flow on right side. Weather cells of yellow or greater were normally displayed and would sometimes toggle on/off tops information. TSDs were changed based on traffic flows in place during the day.

NTSB: Are you aware of CIWS<sup>14</sup>?

XJ: He did not interact with it and did not recall receiving any training.

NTSB: Is the PWDB useful?

XJ: He did not have a strong opinion either way, but thought they were more good than bad.

NTSB: Anything you wish was included in the PWDB that is not now?

XJ: Hard to say, if he did it himself it would be different, possibly. It would be nice to see an overlay of the timeline of the day, but without getting specific to each area did not know how much that could be changed.

NTSB: When you are CIC, is it typical for you to remind controllers to issue weather?

XJ: He liked to sit in the area and listen and would routinely ask for the tops. He was not standing behind them telling them to call weather, but he did ask to see if there were changes to understand what weather was impacting the area.

NTSB: Where do you get tops reports?

XJ: One of the TSD had tops info that could be toggled on and off. Most of the time it was run with them off because it could clutter the TSD when there were

---

<sup>14</sup> CIWS - Corridor Integrated Weather System - The CIWS combines data from dozens of weather radars with satellite data, surface observations, and numerical weather models to dramatically improve the accuracy and timeliness of the storm severity information and to provide state-of-the-art, accurate, automated, high-resolution, animated three-dimensional forecasts of storms (including explicit detection of storm growth and decay).

major flows.

NTSB: Do you ever ask CWSU for tops information?

XJ: Personally, he asked the pilots because they could see it and it got them involved.

NTSB: When you are working a position, how do you handle hazardous weather alerts such as SIGMETs, AIRMETs or CWAs?

XJ: He would read and delete any that were not applicable. Anything specific to the sector, significant or urgent, he would leave it in to make sure that it was covered in the position relief briefing.

NTSB: When it comes to weather training in this facility, how much do you get here?

XJ: Weather was emphasized a lot. It was there if you were receptive to it. There was a line on the back of the dash 25: *Special* Emphasis Item-Weather. Every year during recurrent training and during thunderstorm season they emphasized calling weather and soliciting PIREPs.

NTSB: Would you say weather training here was compliance driven, or was it about how important weather information is?

XJ: It was a combination of the two. It was safety driven issuing and trying to disseminate weather. He enjoyed knowing and understanding the weather. For him, weather was something to be respected.

NTSB: In general, how much direct interaction does ATC have with CWSU?

XJ: FLM interaction with the CWSU was more than that of controller's interaction with CWSU typically, but even that was minimal. We would get a PIREP, let them know, and that was about it. Personally, he would go in the CWSU to ask about the weather for the next few days if he was flying somewhere, to see how his flights may be affected.

NTSB: How is the overall relationship between the operational floor and TMU?

XJ: There was room for improvement; some days were better than others.

NTSB: Are you part of the LSC?

XJ: No

Interview concluded at 1410 EDT.