

## **Weather Study – Attachment 2**

PADU weather observer interview summary and office log notes from the day of the accident.

# **METEOROLOGY**

DCA20MA002

*Submitted by: Mike Richards  
NTSB, AS-30*



## INTERVIEW

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**Date:** December 17, 2019  
**Time:** About 1000-1030 Alaska standard time  
**Location:** Telephone  
**Person Contacted:** Ms. Mechele Hester, Weather Observer at PADU  
**Persons Present:** Mr. Mike Richards, National Transportation Safety Board  
**Subject:** Accident Investigation DCA20MA002

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On December 17, 2019, at approximately 1000 Alaska standard time (AKST), Mr. Mike Richards of the National Transportation Safety Board conducted an interview with Ms. Mechele Hester via telephone. Following the interview, Ms. Hester was given the opportunity to review this summary to ensure its accuracy and completeness. During the conversation Ms. Hester reported the following:

She has been a weather observer at Dutch Harbor (PADU) for 18 years and was on duty at the time of the accident. On a normal shift, she will first look up a weather forecast to get a feel for what the day might bring weather-wise, then she will begin observing weather and update the observations all day long. She overrides the AWOS observations all the time, and every instance of this is logged in her office. She will also talk to flight crews who are arriving PADU and give them weather information. Usually flight crews will call her on the radio when they are 20 to 30 minutes from arrival and request initial weather information, and she will provide them with information from the AWOS. She will advise them with additional weather as conditions change. On final approach the wind information is given, particularly if the weather is volatile.

She believes that weather observers at PADU are required to speak directly with inbound aircraft and cannot think of a time when inbound aircraft have not called the weather observer. She logs every time she is contacted by an aircraft. She will wait until the inbound aircraft contact her before issuing initial weather information.

There are three anemometers on the field at PADU; one anemometer is on the AWOS and there are two 420 instruments.

*[Ms. Hester provided an image (Figure 1) which depicts the approximate locations of the AWOS and 420 instruments. The label of "2A+B" denotes the location of the 420 anemometer whose*

*display is shown in Figure 2 as “2A” and “2B.” The label of “3A+B” denotes the location of the 420 anemometer whose display is shown in Figure 2 as “3A” and “3B.” Figure 2 is a photograph of live displays of weather information in the weather observer’s office at PADU. “1A” and “1B” in Figure 2 are the displays of the two backup altimeter setting instruments, and “4” is the AWOS display]*

There are three windsocks at PADU, one near the approach end of Runway 13 (the unlabeled red dot in Figure 1), one near the AWOS and one near the approach end of Runway 31 by the 420 anemometer [labelled “3A+B” in Figure 1].

She will sometimes see disagreement between the anemometer readings, which is usually when, during volatile weather or when big storms move through, the 420 anemometers will give higher peak wind magnitudes than the AWOS. When this occurs, she will make a remark in the AWOS observations like “OBS PK WND 05052/2207,” which presents the wind generated from a 420 anemometer. She does not see much disagreement with wind directions because the magnetic declination is minimal at 8.67 degrees east.

When aircraft are on approach to Runway 13, she will provide wind information from the “midfield” anemometer [labelled as “2A+B” in Figure 1]. When aircraft are “coming in the backdoor” to Runway 31, she will provide them with wind information from the both 420 anemometers. The wind directions from the 420 instruments are displayed as referenced to magnetic north and this is how she delivers the wind direction to incoming aircraft on final approach. She does not identify this wind as “magnetic.”

The AWOS broadcasts on VHF but the 420 instruments do not. Her opinion is that flight crews probably do not listen to the AWOS’s VHF broadcasts because they know the weather observers at PADU will keep them updated on weather, and because flight crews are speaking to air traffic control.

Giving wind information is standard for every arrival, however some smaller planes may not receive information from the weather observer if they are not familiar with procedures and do not utilize the correct radio frequency.

She believes the 420 anemometers are more accurate because their information is not averaged like the AWOS wind is. In addition, it is a benefit that the 420 instruments present the wind as magnetic, which she believes is preferred by flight crews.

With regard to strategy for determining appropriate wind magnitude and direction when viewing analogue dials that can swing back and forth, she stated that when the weather is volatile, she will be looking at the wind displays all the time, and will be monitoring them constantly when an inbound aircraft is getting closer to landing. During this time, she will be deriving average values in her mind and will report those, but will also report highly variable wind directions and peak winds when appropriate.

With regard to the accident aircraft, she delivered wind information to its flight crew when they were two to three miles out from the airport on both of its approaches. She was surprised to see

the aircraft attempt to land on the same runway on its second approach. She witnessed the accident aircraft touch down but does not recall if the runway was wet or dry, however she did not recall any standing water or puddles. She indicated that a storm was coming in about the time of the landing.

Interview ended at approximately 1030 AKST.

Mike Richards  
Aviation Safety Investigator - Senior Meteorologist  
Operational Factors Division  
National Transportation Safety Board



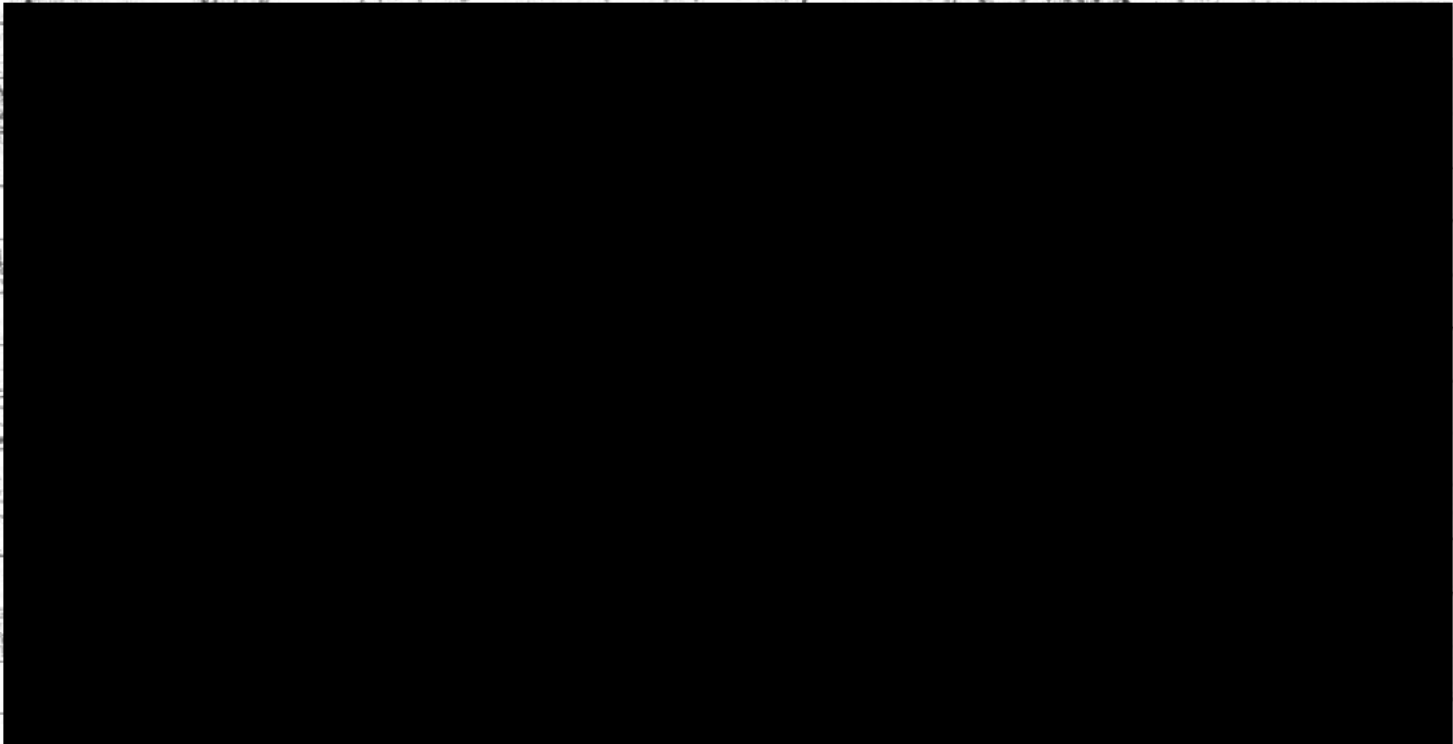
FIGURE 1





FIGURE 2

10/17 15500 AT 27020G25



10/17

3298 called in at about 508pm. I gave them the conditions, wind was 200ll. wx is documented. They gave an ETA of 20 min. putting them here at 528pm. Shower came through and winds changed to out of the W 270ll they asked for winds and I told them the winds now are out of the 27020G25. He tried to land RW3 with a tail wind of about 25kt. He could not get the plane down. Lifemed was scheduled to land after Pen Air and noticed the wind change I had given over the radio. He asked if the wind was from the RW31 and I told him it was now from after the shower that was moving through passed they may switch back to 200 to 080. So I would let him know once Pen Air landed if they changed. A few minutes later Pen Air came for a second.



Approach for RW13. At this time the wind was 31030 given to them off of the WEF instrument. The ANOS recorded 32019 G 25KT at this time ~~with~~ They were landing with at 30kt tail wind. He ~~landed about~~ touched down about  $\frac{1}{3}$  ~~down~~ down the Runway. I could tell he was going too fast and I watched him go off the RW because of too much speed. The time was 1643 LST, 1743 DST & 0143Z. I called got on the radio and told 5HLM to divert runway closed. On the phone to all night after that at 1743 DST to report the Aircraft Incident. Told them to get down here now <sup>Aircraft in the water</sup> got off the phone and called the Coast Guard because the plane looked like it was in the water. Lifeguard called CDBESS to close AND Advise them of Aircraft mishap. Runway is closed for all except medevacs. 500ft is unusable because of the wreck at this time Pen Air pilot is a new pilot with high minimum requirements. CA P. Wells / FO J. Lunn / PA C. Stafford.

craft mishap

run

