Submission of the

National Air Traffic Controllers Association

to the

National Transportation Safety Board

Regarding the Incident Involving

Northwest 188 on

October 21, 2009

Table of Content

I. Incident

On October 21, 2009, Northwest (NWA) 188 was enroute from San Diego International Airport (SAN), San Diego, California to Minneapolis-St Paul International/Wold-Chamberlain Airport (MSP), Minneapolis, Minnesota when they did not respond to air traffic control (ATC) communications. They were NORDO (no radio communications) for 1 hour and 17 minutes and overflew the intended destination before communications were once again reestablished. There were no injuries to the 5 crew members or the 144 passengers onboard and the aircraft landed without further incident.

II. Probable Cause

The probable cause of this incident was NWA188's flight crew's failure to adhere to the Code of Federal Regulations (CFR), Northwest Airline's Standard Operating Procedures (SOP), and Aeronautical Information Manual (AIM).

III. Contributing Factors

- The Front Line Manager's (FLM) lack of proper notification to the Operations Manager (OMIC).

• The late notification to the Domestic Event Network (DEN).

IV. Sequence of Events

The flight was without incident until 2357:01 Universal Time Coordinated (UTC) when the Denver ARTCC (ZDV) R18 controller directed NWA188 to contact ZDV R8 sector and the crew did not respond. The flight continued NORDO for 1 hour and 17 minutes. Northwest Airlines dispatch sent the flight 8 Aircraft Communications Addressing and Report System (ACARS) messages requesting them to contact ATC, from both ZDV and Minneapolis ARTCC (ZMP). According to the NTSB Operations Chairman's Factual Report, Northwest Airlines Chief Dispatcher also stated he tried several calls, on several frequencies, to the flight crew on the company's selective radio (SELCAL) with no avail.

As reported in the NTSB Operations Group Factual Report, both pilots stated they became distracted when they began a conversation in reference to the new company bidding system. About 5 minutes into the conversation, the Captain took out his laptop computer to review the bidding procedures. They stated they heard ATC chatter in the background but never heard their call sign. As described in the NTSB Operations Group

Factual Report, they became aware that they had overflown their destination when a Flight Attendant called the flight deck to ask what the new estimated time of arrival (ETA) was, since they were already past the original ETA. When the flight crew realized what had occurred, their first contact with ATC was with Winnipeg Area Control Center (YWG) at 0012:50 UTC. YWG then advised the flight crew they were on the wrong frequency and provided them with 3 ZMP frequencies.

V. Crew's Responsibility

There are several CFRs which were not adhered to by the crew of NWA188. First, CFR Sec. 91.135b Communications states "Each pilot must maintain two-way radio communications with ATC while operating in Class A airspace." Second, CFR Sec. 91.183 IFR Communications states "Unless otherwise authorized by ATC, the pilot in command of each aircraft operated under IFR in controlled airspace must ensure that a continuous watch is maintained on the appropriate frequency and must report the following as soon as possible." Finally, CFR Sec. 91.3 Responsibility and Authority of the Pilot in Command, which explicitly makes the pilot in command the final authority of the aircraft's operation.

According to the NTSB Operations Group Factual Report, the Northwest A319/320 Operating Procedures Manual states that both pilots are responsible for continuously monitoring the navigation of the aircraft. This manual also includes detailed duties which each pilot is responsible for, including making ATC and/or company reports, send ACARS/In-range reports, and monitoring enroute fuel temperatures. Northwest Communications Procedures also requires the crews to maintain constant communications with ATC and company. It states that the First Officer shall ensure the proper operation of ACARS. Northwest Flight Operations Manual also prohibits the crews, while at their duty station, of engaging in activity not directly related to the operation of the aircraft. It also specifically prohibits the use of personal electronic devices on the flight deck, such as personal computers.

The crew did not comply with the Aeronautical Information Manual AIM. Chapter 4, Section 2-1b requires pilots to stay vigilant when monitoring ATC frequency communications. Also, paragraph 4-2-3e suggests the pilots change frequencies as soon as possible.

VI. Flight Data Recorded

The Specialist Report regarding ARTCC Transmission and overlay with the flight data recorded information clearly shows that there was no further attempt by the crew of NWA188 to communicate with ATC. The VHF depiction shows no radio transmission between the time 1857:01 central daylight time (CDL) and 2014:06 CDL.

VII. Controllers Responsibility

Controllers are responsible to ensure communication is maintained with the aircraft in their airspace at all times. Sector 18 and Sector 8 controllers were unaware that NWA188 had not checked on the frequency. When an aircraft becomes NORDO, controllers have to follow procedures to attempt to reestablish communications. ZDV tried the usual methods, except for transmitting on 121.5. The fist attempt of using 121.5 came at 0056 UTC, 59 minutes after the last communication between the aircraft and ZDV R28 sector. Neither facility used the services of Aeronautical Radio Incorporated (ARINC), as suggested by 7110.65 10-4-4.a.1.

According to ZDV Area 5 FLM, it is common practice for the facility to contact airline dispatch to relay a message to a NORDO commercial air

carrier rather than using 121.5. In this case, the phone number to Northwest Dispatch was not properly updated since the merger with Delta Airlines. Which caused a delay of approximately 15 minutes before a dispatcher answered the call.

Prior to the air traffic system recognizing that the aircraft was NORDO, NWA188 flew through sectors 18 and 8. Sectors 18 and 8 were unaware that NWA188 had not checked on the frequency for approximately 20 minutes. According to the 7110.65 4-2-2 e, if communications with an aircraft have not been established after 5 minutes, they should be considered as a possible suspicious flight and be handled as such. This paragraph also states that the flight should be handled in accordance with FAA Order 7610.4 Chapter 7 Hijacked or Other Suspicious Activity, which includes notifying the DEN as soon as possible.

Once the last ZDV sector, R9, became aware of NWA188 being NORDO, he began to follow procedures to reestablish communications. First checking with the next sector (ZMP R29), then with the previous sector (ZDC R8), notifying the FLM and requesting he contact Northwest dispatch. ZMP controllers then tried to contact the aircraft via 121.5, company dispatch again, and relaying through other Northwest aircraft.

There was a breakdown in communications when neither the ZDV Area 5 FLM or the ZMP Area 5 FLM (first ZMP Area the aircraft entered) notified their respective OMIC of the NWA188's status. The ZMP Area 5 FLM assumed that NWA188 would shortly reestablish communications because Northwest dispatch was asked again to send an ACARS message.

Another notable breakdown occurred when the ZMP Area 3 FLM notified the temporary OMIC of NWA188's NORDO status, the temporary OMIC wrote down the information on a piece of paper, left it on the desk, and did not brief the returning OMIC. Time 0112 UTC was the first notification to the Domestic Events Network (DEN) of NWA188's NORDO status, 1 hour and 15 minutes after the last communication with the aircraft.

VIII. Conclusion

NATCA believes that the Air Traffic System is not capable of operating unless expectations from the pilot community are realized. The system can only function if the pilots are fully engaged in performing their duties.

In this incident, the controller correctly instructed a frequency change to the crew of NWA188. The crew read back the instructions correctly, but failed to comply.

The Air Traffic System eventually identified that NWA188 was in NORDO status. When it was certain that NWA188 was NORDO status, the ZDV and ZMP controllers correctly notified the FLM. Subsequently, the FAA management failed notify all appropriate entities, including the DEN, aggravating the critical nature NWA188's NORDO status.

IX. Recommendations

NATCA recommends the following in order to prevent this incident from reoccurring:

- Every ARTCC should have a direct line to all air carrier's dispatch and an updated phone list be maintained.
- Provide refresher training to controllers on NORDO aircraft and what they can expect the pilots actions to be.
- Brief FAA OMICs and FLMs on the importance of NORDO coordination with the DEN and proper relief briefing. Also, using a

specific check list for the OMICs to use when notified of a NORDO to ensure proper action is taken.

• Aircraft have an audible alarm when receiving ACARS messages so the pilots can be notified in a timely manner.

Daniela Aguerre

Danny Aguerre
NATCA ASI, Party Coordinator

Submitted January 5, 2010