MEMORANDUM FOR THE RECORD

Event: North American Aerospace Defense Command (NORAD) field site visit
Type of event: Interview with NORAD Deputy Commander, Lieutenant General Rick Findley, Canadian Forces (CF)
Date: March 1, 2004
Location: Peterson Air Force Base, Building 2, Colorado Springs, CO
Participants - Non-Commission: Jean Caron, Canadian Forces Justice
Participants - Commission: Team 8: John Azzarello, Geoffrey Brown, John Farmer, Miles Kara, Kevin Shaeffer
Prepared by: Geoffrey Brown
Team Number: 8

Note: Please refer to the recorded interview for further details.

Background:

Findley began his military career in 1958.

He was at NORAD as the Battle Staff Director at Cheyenne Mountain Operations Center (CMOC) on September 11, 2001 (9/11).

Please refer to his attached biography for a complete record.

9/11 Exercise/Operation:

The 9/11 planned operations were Exercise Vigilant Guardian and the NORAD Operation Northern Denial. The Battle Staff at Cheyenne Mountain was positioned to staff both operations. Findley was on the night shift, and was about to come off shift when the attacks began. He noted that because of the shift change at the time of the attacks there were additional personnel present. He believes this was at approximately 0700 MDT.

Command Center:

The Command Center at CMOC has an Air Battle Management Officer (ABMO). The ABMO receives filtered information from the Air Warning Center. On 9/11 the ABMO could not be the focal point, since information was passed from so many sources.
Tracking at NORAD:

Protocol on 9/11:

Findley commented that the flow of information on 9/11, with the FAA as the lead Federal agency, was appropriate. He opined that once the second impact occurred, and the realization occurred that the country was under a coordinated attack, decisions were made creatively, quickly and effectively to adjust as best as possible to what was ongoing.

Asymmetrical threat of planes as weapons:

Findley noted that in his experience with Canadian NORAD the exercises that were practiced on hijacks included scenarios in which the pilot was mentally deranged or the hijackers were attempting to achieve a political end. Later in his career, the exercises involved hazardous cargo in order to stimulate the response dialogue between the military and the political authorities. Findley commented that the development of these threats "more than likely" came from an effort to test a creative scenario.

First Notification:

At about 0640 MDT Findley and the NORAD staff received word that the FAA (Federal Aviation Administration) had requested assistance for an ongoing hijack. The information came to the NORAD Air Warning Center from CONR (Continental U.S. Aerospace Defense Region, Tyndall AFB, FL), and to CONR from NEADS (Northeastern Airspace Defense Sector, Rome, NY). The NORAD Air Warning Center is embedded in the NORAD Battle Management Center and the Command Center. All these teams were present and involved in the NORAD reaction.

The tactical decision to launch fighters from Otis ANGB (Otis Air National Guard Base, Cape Cod, MA) came from NEADS.

UAL 175 (United Airlines Flight 175):

From the NORAD perspective, the first awareness of a second impact at the World Trade Center (WTC) was from the media simulcast of the event. Findley realized at that point that there was an ongoing coordinated attack, but did not know the exact facts of what caused both explosions.

After the impact of AA 11 (American Airlines Flight 11) and UAL 175:
Findley provided General Eberhart with updates and ongoing information, and was aware that Eberhart was discussing with higher National Command Authorities (NCA) the ongoing circumstance.

Findley recalls an ongoing “significant event” conference call. In Findley’s operational loop in the Battle Cab were Colonel Mike Cook, Colonel Bob Seton (J2), and Captain Mike Jellnick, the Command Director. He noted that “certainly the NMCC was on the line at the time.” It is the DDO (Deputy Director of Operations) of the NMCC (National Military Command Center) that initiates the call. Findley noted that they were also in contact with J3 representatives at the Pentagon.

According to Findley, the decision to establish a CAP (Combat Air Patrol) over New York City at approximately 9:28AM EST was a tactical decision from NEADS.

AA 11 re-birth:

Findley was told that the impact at the North Tower of the WTC was an accident. He knew after the second impact that it was a coordinated attack. Thereafter there was confusion as to how many, and which aircraft, were hijacked. There was no situational awareness that was directly credible, and CMOC was relying on the communications over the phone lines with its operations sectors. Findley opined that AA 11 was reported still airborne and headed towards Washington, D.C. because of the added confusion of many hijack reports. Also adding to the confusion, according to Findley, was that CMOC did not note the call sign of the aircraft that were suspected hijacked as much as they noted the direction the reported hijacked aircraft were headed.

Findley now has been informed of the Commission staff position that the Langley fighters were launched because of reports that an aircraft, AA 11, was headed towards Washington, DC, but again noted that at CMOC they did not match the call signs to targets of interest. It is his recollection that Langley was launched due to a report of “an aircraft” headed to D.C.; but not specifically because of AA 11.

Battle stations:

Findley commented that he believes all NORAD assets were placed on Battle Stations after the second impact. They left all assets at Battle Stations until a target was identified. Once identified, NORAD planned to scramble on the target.

AA 77 (American Airlines Flight 77):

Findley noted that they had no situational awareness on AA 77; there were no reports at the NORAD level before the impact time (approximately 9:38AM EST). Findley recollected that after the Pentagon impact the decision was made to place fighters over Washington and leave Washington with a CAP until after the situation was clarified.
He commented that “airborne aircraft no longer responding to FAA direction” were not reported or considered in factual sequence. All the reports, as he recalls, were overlapped and thus added to some of the confusion.

Findley noted that the inability to “see” AA 77 by the FAA was responsible for the lack of information to the military to initiate a response.

**Delta 1989:**

Findley recalls that there was a report over the “loop” that there was a target of interest over Cleveland. There was a corresponding effort to have assets respond to this report, - which was for the flight Delta 1989 (which landed safely in Cleveland).

**UAL 93 (United Airlines Flight 93):**

Findley recalled that when NORAD knew there had been three crashes, he asked for information on whether or not there were other hijacks - but no one was sure. His first notification regarding the flight that turned out to be UAL 93 was that “a flight” had crashed in Pennsylvania.

Findley commented that after the attacks there were discussions regarding the notification to the military of UAL 93 from the FAA. These discussions prompted the ongoing loop that is now in place for instant sharing of information (the DEN line, also known as the Domestic Event Network).

Commission staff represented to Findley that the FAA at their Command Center had notification of a threat to UAL 93 as early as 9:34AM EST. Findley commented that there “was probably informal discussion at the CONR level” to address this issue. He again reiterated that to address this failing the operational loop – also known as the Noble Eagle conference call – was created.

**Canadian flight:**

Findley does not recall information on a potentially threatening flight out of Canadian airspace, which was noted on the NEADS floor as the fifth aircraft (AA 11, UAL 175, AA 77, Delta 1989 and the Canadian flight).

**FAA:**

Findley noted that any information that was provided to NORAD by the FAA would have been channeled first through NEADS.

Findley commented that there was an FAA liaison to NORAD on 9/11 who was also in the Battle Cab. Findley recalls discussing the SCATANA with the FAA representative.
Authority changes:

Findley was not involved in the ATCC (Air Threat Conference Call). He does recall being told by Colonel Cook that the Vice President had passed shoot-down authority on aircraft that "were not responding to direction". Colonel Cook had "someone on the loop" that informed them of this. Findley believes this information was passed after receiving the information that AA 77 and UAL 93's impacts had occurred.

Findley noted that the order would pass through the command structures to the pilot level. Findley commented that on 9/11 they were not bound by procedure, and thus information was passed immediately. They did not have to accelerate to the stage of a dialogue with an actual targeted aircraft.

In hypothesis, if there was a specific target aircraft, the shoot-down authority would have been subject to a function of time. The pilot would "most likely" have requested authority "straight up the line", but the time factor would dictate at what level the decision would be made. The communication to the pilot would have been for authentication that the authority could be given. Prior to 9/11 these authentication protocols were not intended for an engagement with general aviation aircraft.

As a sector commander, NEADS Commander Colonel Robert Marr had the authority during the ongoing emergency situation to order a shoot-down once that authority had been passed from the Vice President.

Findley noted that when there is a DEFCON (Defensive Condition) global change the transition ROE (Rules of Engagement) are automatically in effect. DEFCON 3 also allowed for greater global force protection. He believes the emergency authority needed to be passed because the transition ROE did not suffice in clarifying the authority to engage the ongoing circumstance. He believes this concern was initiated at the "Washington level", and then communicated to NORAD. A more definitive ROE was issued later in the day to account for a defensive posture specifically related to the terrorist attacks.

Findley noted that even considering the attacks on 9/11 the understanding for the pilots as to protocol to engage a target would not have changed considerably. By this, Findley explained that the Transition ROE was defined to deal with a strategic threat by giving a pilot a little more autonomy to identify a target. But this authority is dependent upon the situation, and normally the CINC NORAD would receive authority from the President, and hold that authority. CINC NORAD (General Edward Eberhart) was in dialogue with the Commander of the Joint Chiefs, and with Secretary of Defense.

Under the Vice Presidents' emergency order (supposedly specific for Washington, DC) the passing of authority would have proceeded under the same guide as the Transition ROE, but the Transition ROE allowed for the posture of the authority globally.
Findley was not aware of the declaration of a "weapons free zone" over Washington, DC on 9/11. Findley commented that the pilots would have a different understanding of the authority to engage. All the pilots’ engagement training would have pointed towards a need to receive authority from higher command. Findley commented that it is correct under a weapons free zone for a pilot to engage a target without asking for any further authority, but he firmly noted that he does not believe a pilot would have done so.

**Andrew fighters:**

Findley commented that he had no information that Andrews AFB fighters were airborne on 9/11 until sometime on September 12, 2001.

**Canadian airspace:**

According to Findley, before 9/11 there were no existing air defense plans over specific sites in Canada that compare to the CAPs established post-9/11. Findley noted that internal radar in Canada has been addressed, but not to the same extensive degree as internally in the United States. Navigation Canada is linked into NORAD through the DEN line.

**Developments and after-action reports:**

According to Findley a process for greater communication with fighter assets began directly after 9/11. This process hinges on the DEN line’s ability to provide immediate “actionable intelligence” on air events that could be considered “out of sorts”. Also, the radar feeds to the military are now “tied in”, which allows for sharing of information with common terminology and thus practically instant situational awareness. Findley further commented that the airlines, the FAA, and NORAD have all cooperated on Operation Noble Eagle.

Findley noted that though there was not a formal after action report immediately after the 9/11 attacks NORAD began to “hotwash” so they could have a better understanding of the attacks. CONR was tasked with this effort. He believes CONR, at the operational level, was responsible for placing BMO (Battle Management Officers) into the FAA centers so that there could be a greater inter-agency understanding. He noted that within the first 90 days these efforts greatly enhanced the operational capability for there to be a response to 9/11 type tracks of interest. As each exercise takes place these measures are refined and updated.

Findley noted that low altitude communication capabilities were established for the Washington, DC area immediately after 9/11. He also informed Commission staff that the Data Link system is “recognize(d) as the key to the future”. Data Link is a system through which target data is instantly communicated between fighters and between fighters and command sectors.
FAA/NORAD Communication:

Findley explained that there has been a great improvement in the link between the operations and the detection capability of air defense—what he referred to as air defense’s “hand/eye coordination.” He commented that the FAA radar are “getting extremely old,” and that there are efforts cooperatively with the FAA to use resources in order to improve and update the current “ability to see.” He noted as well that there are now more alert sites which have a different alert posture, and have the ability as well to “ramp up” quickly. He commented that there was a “staggering” five to six exercises a week immediately after 9/11, and that these exercises have served to maintain operational readiness despite the incoming “third generation” of NORAD air defenders.

Findley’s experience with DEN events informs his opinion that the FAA is “very aware” and vigilant for any possible events.

He explained that once it was recognized that on 9/11 the FAA’s conference call did not include a military authority this communication failure was immediately addressed. There were no direct lines on 9/11 to the en route center-level FAA. The lines were STU 3s or dedicated lines, and nothing was recorded as far as he knows. Most of Findley’s discussion was on the ground stop and procedures for transition of airspace control to the military, SCATANA (security control of air traffic and navigation aids). He recalls a brief discussion on how to allow for law enforcement and medical aircraft to fly. He also recalls the need for aircraft to be airborne on a case by case basis. He commented that these steps have been greatly improved post-9/11.

Findley noted that the pilots now have a better joint ability to vector directly to a target of interest. He opined that the methods that have been developed to address the conflict between FAA control of air traffic and a pilot’s ability to directly vector to a target are more appropriate, and safer, then vesting this authority directly with the fighter pilot.

Intelligence and NORAD operations:

Findley noted that he was sitting beside the J2, Colonel Bob Seton, on 9/11, and the J2 receives information from the intelligence officers. Seton separated inaccurate from accurate reports, and passed these verbal intelligence relays to Findley.

Findley commented that there was no foreknowledge at his level of the asymmetric threat that occurred on 9/11, and that once the attacks occurred, the concentration to address the indicators of such events were greatly improved. Findley commented that the asymmetric threats are addressed separately by Canadian intelligence and U.S. intelligence, but there is a fusion of these efforts at NORAD.

Air space threat assessments have been improved at NORAD to specific aerospace threats, and in conjunction with USNORTHCOM. The TTIC system aids in this effort by supplying NORAD with asymmetric threat information issued through U.S.
government intelligence agencies. Findley commented that the “need to know” paradigm needs to become the “need to share” reality for both U.S. air defenders and Canadian Forces.

Findley noted that the order to fire upon an American airliner is made by an American highest authority or a Canadian highest authority dependent on which airspace the target is over.

Other:

Findley noted that air patrols were established over sixteen specific sites on 9/11.

Findley noted that ACC is a party on the DEN line now.

Findley did not participate in Operation Enduring Look. He believes that effort was specifically a U.S. effort.

Findley commented that Captain Mike Jonah compiled a “hot wash” directly thereafter the 9/11 attacks. This effort was to make certain that the logs were complete. Computer logs were not kept formally on 9/11, but written logs were assessed for their veracity in comparison with individuals’ recollections. Commission staff confirmed that they have received these logs for review.

Findley recalls creating an Operation Noble Eagle internal commission to refine the operational needs at NORAD. This effort was to confirm that there exist correct and authorized documentation to address the ongoing post-9/11 operations. Findley noted that the result of this effort should have already been delivered to the Commission. He believes it was only a one or two page report.

September 18, 2001 NORAD timeline:

Findley explained that Dr. David Finkleman, former head of the analysis (AN) shop at NORAD who was in the Battle Cab during the 9/11 attacks, reconstructed the 84th RADES (84th Radar Evaluation Squadron) data and the sector information to compile the NORAD 9/18/2001 released timeline. Commission staff represented to Findley that some of the times represented by the 9/18 timeline are inaccurate. Findley commented that the times that were released were based on the information provided and analyzed, and were not recognized as inaccurate at the time.

Commission timeline vs. NORAD recent timeline:

Commission staff represented to Findley the facts of its timeline, and asked what prompted the issuance of a newer timeline (received by Commission staff the week of February 23, 2004). Findley noted that CONR and NEADS were involved in compiling the new timeline in response to Commission inquiry. Findley commented that the times that were originally released by NORAD were not carefully scrutinized, since there was
great effort immediately after 9/11 to close the operational gaps that had been exploited by the attacks.

Findley commented that Colonel Punch Moulton could answer Commission staff follow-up on the newer NORAD timeline.