

Information Note
Intergovernmental and Aboriginal Affairs Secretariat

Title: Makkovik SAR Weather and Asset Analysis

Issue: DND maintains that weather was one of several contributing factors for the decision not to send Primary Search and Rescue assets to Makkovik during the morning of January 30, 2012. The source information included in this note was taken from the DND Operational Log, which was released by DND and is available on the CBC website. A timeline analysis has also been prepared by IGAAS and is attached to this note.

Background and Current Status:

Timeline of Events on the morning of January 30, 2012:

- The CBC program, *The Fifth Estate*, reveals conflicting information surrounding DND's analysis of weather conditions on the morning of January 30, 2012.
- At 9:00am, the Environment Canada weather station in Makkovik reports that it is snowing, visibility is 1.6km and the temperature is -5.3C. CBC reports that it is snowing, visibility is 1.6km and the cloud ceiling was 600 feet.
- At 9:12am, both Department of National Defence (DND) and CBC reported that Fire and Emergency Services (FES-NL) called the Joint Rescue Command Centre (JRCC) to request assistance in the search.
- CBC reports that JRCC will commit 444 Squadron's Griffons at 5 Wing Goose Bay (213km from Makkovik) to the search because there are no serviceable Hercules aircraft in the area. In the CBC video maintains that the Hercules aircraft are used to support the Cormorant helicopters in case of emergency. Initial indications at 9:19am are that the Griffons were available.
- At 9:24am, the DND report states that it was understood that weather was hampering the ground search and rescue effort.
- CBC reports that at 9:28am, JRCC spoke with 5 Wing and it was apparent that the Griffons were not serviceable, citing a leaking oil line. Meanwhile, the pilot of a Woodward Aviation helicopter in Postville, 42km southwest of Makkovik, decides it is safe enough to fly and heads out to search. Weather is marginal but pilot says she can still search.
- At 9:33am, both DND and CBC report that JRCC advised FES-NL that the weather was not suitable in Makkovik and to call back when the weather improved. DND reported that weather "fluctuated all day at or below the minimums" and that the Makkovik station "did not report weather through the night."
- At 10:00am, CBC reports that the Woodward helicopter arrives at the scene but had to return after 30 minutes due to engine problems. CBC and Environment Canada reports the weather as snowing, visibility 4km and -5C. DND did not include this in their timeline.
- At 10:48am, CBC and DND report that a Universal Helicopter (Bell 206) leaves Goose Bay and reaches Makkovik by 12:00pm. CBC and Environment Canada report that it was snowing, visibility of 6.4 km and -7C.
- At 5:18pm, JRCC closes the case for the first time.

Weather Analysis:

- Environment Canada reports confirm that Makkovik did not report through the night, however, the lowest visibility was reported at 1km at 8:00am. It was snowing throughout the day with wind speed between 0km/hr and 7km/hr from 6:00am to 10:00am.
- Between 9:00 and 10:00 am, visibility ranged from 1.6km to 4km.
- DND stated in a question posed by CBC that the weather was "marginal at best at the time of the call with a ceiling of 600ft and visibility of 1nm [1.85km]."

- According to CBC, the DND report states that the Cormorants require at least a 300 feet ceiling and 0.5 mile [0.8 km] visibility.

Assets reported to be used in the search effort:

- Of note, the CBC and DND reports differ in the assets reported to be used and their availability on the morning of January 30, 2012.
- CBC reports that:
 - CH149 Cormorant search and rescue helicopter, Gander, Newfoundland - Three of the four are fit to fly, although in one of them the hoist that could be used to rescue someone from the air is broken. The fourth is in the shop undergoing maintenance.
 - CH149 Cormorant search and rescue helicopter, Greenwood, Nova Scotia - The Cormorant on 24-hour SAR standby is fit to fly.
 - CC130 Hercules search and rescue airplane, Greenwood - All three Hercules search and rescue airplanes based in Greenwood are out of service. A backup SAR Hercules in Trenton, Ontario, about 1,000 km away, is fit to fly.
 - CH146 Griffon helicopter, Goose Bay, Labrador - Two are based in Goose Bay. One is in heavy maintenance. A pre-flight inspection of the second Griffon shows three oil lines are leaking and that the helicopter is out of service.
 - Woodward and Universal helicopters - Used in the morning search.
- DND reports that:
 - Primary SAR Assets
 - CH149 Cormorant (Gander) - Serviceable.
 - CH149 Cormorant (Greenwood) - Serviceable.
 - CC130 Hercules (Greenwood) - Unserviceable, however SAR backup available from Trenton was serviceable.
 - Secondary SAR Assets
 - CH146 Griffon (Goose Bay) - one in heavy maintenance, one found to be unserviceable after pre-flight inspection.
 - CP140 Aurora (Greenwood) - Serviceable.
 - CH149 Cormorants in Gander and Greenwood - maintaining primary maritime SAR posture.
 - CC130 in Greenwood - unserviceable.
 - Universal helicopters - Used in the morning search.

Conclusions:

- Based on information checked against Environment Canada records, CBC has reported the weather conditions accurately.
- At the time of the call, the weather appears to be within the limits as prescribed by DND. It would appear that other factors may have contributed to DND's decision not to deploy the Cormorants.
- The DND report does not include the number of Cormorants that were available in the morning and does not include the inclusion of the Woodward helicopter in the search and rescue effort. Of note, the pilot of the Woodward helicopter noted that the weather was marginal but she was still able to fly.

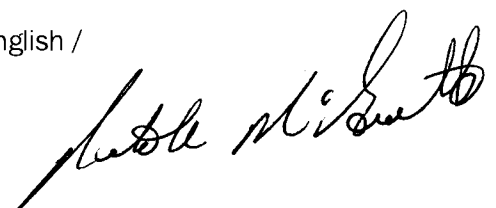
Action Being Taken:

- IGAAS will continue to monitor the situation as any new information is presented.

Prepared / Approved by: Colin Corcoran in consultation with Tracy English /

Ministerial Approval: Minister McGrath

March 27, 2012



Intergovernmental and Aboriginal Affairs
 Search and Rescue Timeline Analysis
 Colin Corcoran, Senior Analyst
 27-Mar-12

Timeline		Key Events as reported by:		Weather as reported by:		
Date	Time	DND	CBC	DND Report	CBC Report	EC - Makkovik
Jan-29	13:30:00	Burton last seen at Grandmothers house	Burton drops off his cousin Willy Flowers at their grandparents' house in Makkovik		Snowing, -11	
	17:00:00	<i>Note: This was the last reported weather for Makkovik</i>				Snow, visibility 9.7km, -8.7C
	19:00:00	Missing report filed to RCMP	Rodney (father) upon getting a call from the grandmother, went looking around town for Burton. They did not find him. Burton's family calls local RCMP to report him missing			
	19:30:00	RCMP initiate ground search	Cpl. Vardy (RCMP) calls Community Constable Anderson (also the community SAR coordinator) to say Burton is missing. He goes to the office to start organizing a search with over 50 people.			
	later?		Anderson calls the Canadian Rangers at L Division Land Forces in St. John's to say a Junior Ranger is gone missing			
	22:10:00		Cpl. Vardy calls Sgt. Youden at RCMP Support Services in St. John's to say Burton has gone missing and discuss possible air support for dawn. Nothing is finalized			
	22:45:00		Local comes to office to say he saw fresh snowmobile tracks heading out to Makkovik Bay at around 2pm. Six searchers head out to see if they can follow			
Jan-30	02:00:00	Initial search suspended				
	02:30:00		Ice is dangerously thin and searchers are forced to abandon their search. They return to the office to set up a plan for morning			
	06:45:00		Sgt. Youden calls Cpl. Vardy to get update. Vardy tells him that after they last spoke the ground crew found tracks leading to the ice but could not follow because it was too dangerous			
	07:00:00	Search resumes in local community	Ground SAR resumes.		Snowing heavily, Snow, visibility 1.6km, - 1.6km, -5.4	6
	08:00:00		Sgt. Youden leaves a message for FES-NL, which is in charge of dispatching privately-owned aircraft for SAR cases			Snow, visibility 1.0km, -5.5
	08:40:00		Sgt. Youden speaks with Fred Hollett (FES-NL). Provincial Gov Air Services calls Universal Helicopters in Goose Bay to request a search helicopter. Crew alerted but decide to wait after a weather check		Snow and "low ceilings"	
	09:00:00		Weather check		Visibility 1.6 km, Snow, visibility cloud ceiling is 600 ft, -6	1.6km, -5.3
	09:12:00	JRCC received 1st call from FES-NL	FES-NL calls JRCC to ask for help searching for Burton			
	09:13:00		JRCC coordinator discusses request with the officer in charge, who decides that because there is no serviceable Herc in the region, he will only commit 444 Squad in Goose Bay to search. They have two Griffon helicopters which are used for training and "humanitarian" SAR			
	09:19:00		JRCC coordinator calls CF Goose Bay. They report they are SAR ready			
	09:24:00	Significant Incident Report filed by 5 Canadian Ranger Patrol Group (CRPG) to LFAA HQ into CFICCC indicating teenager reported missing. 5 CPRG indicated as involved in search with RCMP (9:35am - 10 rangers and 2 HQ staff). Weather is hampering the ground search		Weather hampering the ground search		
	09:28:00		JRCC coordinator speaks to Captain Dan Gillis (Flight Commander) in Goose Bay, who says the Griffons are unserviceable but that he will call when he gets to the squadron			
	09:30:00		SAR coordinator discusses weather and aircraft status with the officer in charge. He does not want to commit resources other than the Griffons and they are unserviceable. The Griffons are found to have three leaking oil lines. Meanwhile, the pilot of a Woodward Aviation helicopter in Postville, 42km southwest of Makkovik, decides it is safe enough to fly and heads out to search. Weather is marginal but pilot says she can still search.		Weather is marginal but improving and still able to search	

	09:33:00	JRCC advised FES-NL weather was not suitable at Makkovik and to call back when it improved. Hourly weather reports indicated weather fluctuated all day at or below minimums. Makkovik weather station did not report weather through the night. NOTE: Report only gives status of one Cormorant in Gander as serviceable	JRCC coordinator tells FES-NL that based on weather and aircraft status, it "cannot support" the search at this time. They may be able to if required and aircraft/weather situations improve. Anderson was informed by Cpl. Vardy that nothing was available and the ground search continued.	Weather not suitable	
	10:00:00		Woodward's helicopter arrives on scene to search. After 30 minutes the private helicopter has to land due to engine problems		Snowing, Snow, visibility 4 km, -5 4.0km, -5.1
	10:52:00		444 Squad calls the JRCC to say the Griffons will be unserviceable until 2pm		
	10:58:00	The 1st Universal helicopter (Bell 206) departs from Goose Bay for Makkovik	A Universal Helicopter leaves Goose Bay to join the search. Universal President indicates that once they get the call, "the decision is already made to send the aircraft." However, CBC notes they lack the equipment and trained spotters. Care would have been minimal.		
	12:00:00	The 1st helicopter arrives at scene to assist	The Universal helicopter arrives in the area where searchers are looking for Burton. It discovers snowmobile tracks and follows them until they end at about 20 meters of open water. It searches for another 30 minutes but finds nothing.		Snowing, Snow, visibility 6.4 km, - 6.4km, -7.3 7
	13:46:00	2nd Universal helicopter departs for Makkovik. CF not called to assist.			
	14:00:00		Local searchers decide to search underwater and release the Universal Helicopter		Snow, visibility 4.0km, -7.7
	15:00:00		RCMP calls FES-NL to say it has released the Universal Helicopter and believes air support no longer required		Snow, visibility 4.8km, -7.7
	Afternoon		Speedboat arrives and searchers drag the bottom of the bay with hooks and anchors believing they will find Burton in the hole under the ice.		
	17:18:00	JRCC closes the case	JRCC closes its file		
Jan-31	06:00:00	Hourly weather reports commence.		Weather not suitable	Snow, visibility 2.4km, -14.7
	07:00:00	FES-NL did not call to request CF support		Weather acceptable	Snow, visibility 4.8km, -16.5
	09:32:00 Morning	RCMP change status from search to recovery	RCMP requests a special camera from the Underwater Recovery Team in Deer Lake. An RCMP plane arrives in Makkovik to deliver the underwater camera		Mainly clear, visibility 24.1km, ~-18
	Afternoon		The RCMP plane conducts a search of the area and finds the snowmobile stuck in some ice that has buckled, about 2.5 km from open water and 11.5 km east-north-east of Makkovik. CBC reports it was "further than they considered."		Mainly clear, visibility 24.1km, ~-18
	15:38:00	RJOCA WO receives report snowmobile found on ice flow inaccessible by GSAR			
	16:34:00	5 CRPG calls RJOCA to get assistance in securing aircraft. RJOCA calls JRCC to request procedure for requesting aircraft. Procedure explained. No request is made. JRCC re-opens case and checks on Griffon serviceability in Goose Bay.			
	16:43:00		L Forces Northern Division in St. John's calls the JRCC in Halifax to ask how to arrange helicopter support for Burton		
	16:45:00		The JRCC reopens its file on Burton Winters		
	16:46:00		JRCC calls CF Goose Bay to ask if its Griffon helicopters are back in service		
	16:54:00	FES-NL calls JRCC to request support. As the civilian plan could not search at night, CF support requested. CF commences SAR response. Hercules and Griffon still unserviceable, eta for Griffon is 1800hrs	FES-NL calls JRCC asking for air support to search the area where Burton's snowmobile was found	Weather suitable	Mainly clear, visibility 24.1km, -18.3
	17:33:00	Griffon from Goose tasked to assist. Cormorant not tasked as it has a primary response to overwater events.	JRCC assigns a Griffon and SAR crew to join the search		Sky mainly clear, visibility 24 km
	19:38:00	Griffon airborne after 2 hrs and 5 minutes	Griffon leaves the base in Goose Bay		
		<i>Note: There are additional items in the timeline, however, they are not related to weather</i>			