

August 13, 2020

Mills Memorial (Terrace) Hospital Heliport Report

Background

The Northern Health Authority (Northern Health) will soon be commencing construction of a new Mills Memorial Hospital (Hospital) in Terrace. One of the outstanding considerations associated with the new Hospital is the assessment of air and ground transportation of critically injured patients from various locations in the Region to the Hospital.

Following decommission of the then “certified” hospital helipad in 2010 due to estimated costly upgrading requirements by Transport Canada (about \$750K), patients have been and continue to be flown by rotary wing aircraft (i.e. helicopter) to the Northwest Regional (Terrace-Kitimat) Airport and then moved by BC Emergency Health Service (BCEHS) ground transport to the Hospital. With the recent decision to build a new hospital, Northern Health, in partnership with BCEHS, believes it is timely to look at available data to explore various options such as the current method of using the Airport and ground transport to the Hospital, using the services of an existing secondary heliport in close proximity to the Hospital or constructing a heliport adjacent to the Hospital. Northern Health believed the most effective way of doing this assessment was through a collaborative process that would include input from relevant interests in the Region.

To facilitate such a process, Northern Health retained David Marshall, Chief Executive Officer of the Fraser Basin Council, to assist Steve Raper, Chief, External Relations and Communications, and Iain Flannagan, Regional Director, Business Development. David assisted Northern Health with a similar process in 2013 and in 2016-17 to enhance emergency patient transportation to and from the North Peace Regional Airport and the Fort St John Hospital and more recently with heliport considerations at the Prince Rupert, Stuart Lake (Fort St James) and Quesnel Hospitals.

Iain Flannagan and David Marshall conducted a site visit to Terrace on August 8, 2019 to familiarize themselves with the current situation at the Hospital, identify other options other than the status quo and identify relevant interests within the region that would be valuable and informed participants in the collaborative process. Following the site visit, invitations were sent to these participants by the Regional Chief Operating Officer inviting them to meet with Iain and David on October 21, 2019 to obtain their input on the various options such as 1) the current method of using the Airport and ground transport, 2) using the services of an existing heliport in close proximity to the Hospital or 3) constructing a heliport adjacent to the new Hospital. People and organizations who participated at these meetings are identified in Attachment 1.

Findings

The following information was obtained during the August 8, 2019 site visit and the October 21, 2019 meetings.

Air Transport

1. The distance from the Airport to the Hospital is approximately 8.9 kms. The normal ground transportation time (assuming no significant delays from either heavy vehicle traffic or train crossings) from the Airport to the Hospital is approximately ten minutes. BCEHS participants stated that approximately an additional ten minutes, as a minimum, would be required to transport a patient from a helicopter to the ambulance car at the Airport and from the ambulance car to the Hospital's emergency department. The patient load/unload time for a ground ambulance is the same at an airport or an on site helipad. The Airport charges BCEHS a fee of \$36 per helicopter landing.
2. There are two secondary-privately owned non-certified heliports, Lakelse Air (3712 Highway 16 East) which is about 5.5 kms from the Hospital with ground transportation time of about eight minutes and Yellowhead Helicopters (3111 Frank Street) which is about 3.8 kms from the Hospital with ground transportation time of about six minutes. Recently a third heliport, Highland Helicopters, was decommissioned. Both of the two secondary site options are relatively close to the Hospital and are located on the Hospital side of the railway tracks thus alleviating any concerns with railway crossings associated with ground transportation. On occasion and upon request, Yellowhead Helicopters have allowed BCEHS paramedics to meet privately owned helicopters to pick up patients on an infrequent basis. BCEHS meets about ten private helicopter landings per year at the secondary-privately owned Yellowhead Helicopters' heliport. Other helicopter providers used occasionally by BCEHS include Canadian Helicopter, Quantum Helicopters and Summit Helicopters.
3. Approximately two fixed wing landings per day occur at the Airport.
4. BCEHS reported that 155 helicopter transports from or to the Airport occurred over the past three years with an average of 51 per year. BCEHS anticipates this number will increase approximately 15% per year over the next five years.
5. BCEHS is reviewing air and ground services in northern BC and is committed to a long term planning process that will explore the role of air transportation province wide.
6. The BCEHS paramedic staffed helicopter based at Seal Cove in Prince Rupert, about 30 minutes flight time to Terrace under ideal weather conditions, is available to serve as a back-up helicopter in case of medical emergencies.
7. Search and Rescue contracts helicopters through Emergency Management BC when required.

Road Transport

1. The District expects traffic on Highway #16 to increase due to additional activity on the road to Kitimat, population growth and increased resource development within the Region.
2. The Ministry of Transportation and Infrastructure recently constructed a 'round about' on the route from the Airport to the Hospital, thereby improving the traffic flow on this route.

Northern Health Regional Leadership

1. Northern Health regional leadership expects the new Hospital will become the most 'state of the art' primary care facility in northwestern BC. As such, the new Hospital will be able to perform more surgeries in northern BC for all levels of patient injury acuity. This could result in more air transportation of critically injured persons resulting in an increase in air transport landings near the Hospital. There are currently 26 'specialists' at the Hospital with the potential for an increase in this number with the added significance of more patients using the new Hospital.
2. The decision on the preferred patient transport option has a certain degree of urgency due to the fact that the final construction plans for the new Hospital are nearing completion.
3. Work is under way to develop a critical response and retrieval team where Northern Health and BCEHS work together to support moderate to high acuity transfers. A similar model has been deployed in the Prince George Region.

First Nations

1. Medical evacuations calls from First Nations communities continue to be numerous. For example, there are about 70 to 100 evacuations per year from the community of Kincolith alone. Ground transport from that community takes about three hours whereas helicopter transport takes about 35 minutes. Recent acuity levels require about 50% of medivacs to be done by helicopter.
2. The Manager of the Emergency Response Services for the Nisga'a Lisims Government mentioned that the elders have recently been raising concerns that ground transport from their communities is taking too long and thus they prefer air transport.

Chamber of Commerce

1. The Terrace Chamber of Commerce expects significant growth in the BC Northwest Region in the future with expected resource developments in the energy, mining and forestry sectors within the Region of about \$60B.
2. Growth of this extent and nature could result in more work camps in remote areas resulting in the potential of significantly more medical evacuations to the new Hospital.

Assessment

1. Based on the information obtained during the August 8, 2019 Scoping Mission and the October 21, 2019 meetings with relevant regional interests, it was determined that additional information was required to adequately assess the option of locating a heliport adjacent to the new Hospital. Thus, Northern Health contracted Dave Brown of GroundEffects Aerodrome Consultants to review the most current new Hospital plans and complete a site assessment to determine the feasibility of a possible site(s) for a new heliport at the new Hospital and, if deemed feasible, prepare cost estimates for construction and operation of a registered and certified heliport that would meet Transport Canada's regulations for heliports.
2. GroundEffects Aerodrome Consultants conducted a site assessment and submitted its report dated January 6, 2020 to Northern Health (Attachment 2). The Report concludes that "there is no physical space large enough to accommodate a new heliport and the associated airspace" as the Indicative Design Site Plan and Landscape Plan for the new Hospital indicates almost full use of the current site. The Report goes on to state that provision for a heliport would require a substantive reconfiguration of the planned new Hospital building. Although the Report does suggest two possible heliport locations, it also points out that heliport site and obstacle constraints may restrict the available approach/departure paths and fly-away areas. Site capacity restrictions will also result in limited options for designated emergency landing areas.

Conclusions

1. **Based on the GroundEffects Aerodrome Report and other factors, the safest and most appropriate option for transporting patients from remote locations to the Mills Memorial Hospital is to continue using the heliport at the Northwest Regional Terrace-Kitimat Airport and transporting critically injured persons to the new Hospital by ground transport.**
2. Incorporating a registered and certified H2 heliport as part of the Indicative Design Site Plan at the new Hospital would not be financially or logistically feasible to meet the Aerodrome report specifications and requirements.
3. In addition, a heliport at the new Hospital would be limited to the BCEHS helicopter as single engine privately owned helicopters would not be authorized to land there.
4. Continuing to use the heliport at the Airport, rather than accessing secondary privately owned heliports, provides more long-term certainty with respect to high quality, sustained and expeditious air transport of critically injured persons from remote areas to the new Hospital. Furthermore, secondary heliports could be terminated at some point in the future for economic and/or business reasons.
5. To provide additional back up support to the heliport at the Airport, BCEHS could explore, in collaboration with secondary privately owned heliports, the possibility of the BCEHS helicopter using those heliports as secondary sites (as an alternative to using the

helipad at the Airport) and thus being authorized to land at either one of those heliports on an infrequent basis when it is safer and/or more medically time sensitive to do so.

6. The Community, in partnership with BCEHS, Northern Health, First Nations and industry partners, could explore the possibility of even more back up support to the heliport at the Airport by working with community interests to identify potential sites for a heliport located on community owned grounds within close proximity to the Hospital.
7. In a broader context, Northern Health and BCEHS will need to take into account emerging priorities related to the pandemic, the barriers to providing safe and timely emergency response to remote and indigenous communities, and BCEHS plans with respect to the transportation of critically injured patients. While these considerations will not affect the current hospital development and recommendations to continue to use the heliport at the Airport as the safest and most appropriate landing site, there will be a need to assess future options in the context of the planning work that BCEHS is doing in partnership with Northern Health which may or may not include future discussions with respect to Conclusion #5.

Recommendations

1. For the time being, BCEHS continue to use the Northwest Regional (Terrace-Kitimat) Airport.
2. Northern Health and BCEHS meet with local and regional stakeholders to explore the feasibility of initiating a collaborative process (similar to the one conducted in 2014 with respect to the Fort St John Hospital) to identify and evaluate potential sites for a heliport located closer to the new Hospital.