Response to the Air Ambulance review completed by WJD Consulting Inc. concerning the aircraft based at St. Anthony including statistics and recommendations using St. Anthony as the base of operations.

Presented by:
The staff of the Air Ambulance Department based at St. Anthony
Operating the King Air 350 (C-GNLF)
Preamble

This response is a collaboration on behalf of the staff of the Air Operations Department located with the MEDEVAC aircraft based at St. Anthony, NL.

This staff includes an Air Operations Manager/Chief Pilot, two Captains, two First Officers, Director of Maintenance, two Aircraft Engineers, three Dispatchers, one part-time Dispatcher, one Technical Aircraft Records Clerk and one part-time Secretarial staff. Combined this staff has logged 36,500 flight hours flying MEDEVACS for this province. Our maintenance staff has 55 years combined MEDEVAC experience. Our overall staff combined have worked in the MEDEVAC operation with 135 years of experience and combined we have an incredible insight into MEDEVAC operations in this province. This experience must be taken into account and even though it was not explored in the report by WJD Consulting, it deserves the consideration and suggestions contained in this response.

Executive Summary and Listing of Recommendations

The Air Ambulance service in the province of Newfoundland and Labrador plays a critical part in the operation of the healthcare system. We agree that there are many challenges related to geography, weather, location of facilities and services, availability of aircraft and staff and literally hundreds of others. Only a few of these variables were recorded and studied in this report and the effects of all of them have to be considered in order to provide a MEDEVAC service that is both efficient and safe for the entire population of the province. Relocating the service from one position to another should be undertaken only if such a move would improve services to the whole of Newfoundland and Labrador, as this service is provincial in nature. There is no study into what effects this will have on the program as a whole for the province and the operational issues this will create.

The recommendations first and foremost should be reflective of the issues. They should be implemented in a way to best solve these issues, not create more problems and complications.

Recommendation #1: The air ambulance aircraft should be located in Happy Valley-Goose Bay to serve the people of Labrador and Northern Newfoundland

Discussion: We feel that location of all MEDEVAC aircraft should be part of this review. We do not feel that it is the #1 issue because stated on page 6 in the Medical Flight Service Teams section it clearly states that “Medical Flight Services Team availability appeared to be the most critical issue and
was the most criticized feature of the current service”. The most important or critical issue should therefore be the subject of the first recommendation.

The recommendation should read “There should be a second Medical Flight Services Team stationed at St. Anthony to accompany the air ambulance aircraft”. The location will be referred to further along in this response under aircraft location.

**Recommendation #2: There should be a second MFS Team stationed in Happy Valley-Goose Bay to accompany the air ambulance aircraft to be located there.**

**Discussion:** This should read that a second new King Air 350 should be purchased to be stationed at St. John’s. This aircraft will further enhance the MEDEVAC program for the province by having greater dependability and less down time. This new aircraft, having the capabilities of responding to more MEDEVAC calls, will enhance the service to the province and to mainland Canada and relieve some of the pressures on the St. Anthony based aircraft during down time. This review currently has not explored the downtime issue of the St. John’s aircraft, maintenance procedures, crew availability and the complement of staff supporting this part of the program. Recommendations for the purchase of a new aircraft must be based on the facts and the advantages associated with the purchase.

**Recommendation #3: The Aircraft Flight Crews and the MFS Teams must be sufficiently staffed to provide a 24/7 level of service.**

**Discussion:** The Aircraft Flight Crews including maintenance and support staff must be sufficient to support a 24/7 level of service. This recommendation must include maintenance and support staff. Downtime for an aircraft is not only associated with breakdowns. There are many maintenance procedures, some routine and many quite extensive that have to be completed for the safe operation of the aircraft. It is a fairly well known fact that older aircrafts require a much more intensive maintenance program, but brand new aircraft also have a maintenance schedule to follow. The aircraft maintenance is based on hours flown as well as aircraft cycles and an aircraft based at Goose Bay will accumulate both much quicker. The attention to this program not only affects the day-to-day safety of the operation, but has a lasting and long term effect on the future of the aircraft. Basically if the maintenance is top notch from the start, you will get many years of safe flying in return.
Recommendation #4: There must be aircraft available to provide a 24/7 level of service.

Discussion: We agree with this and this should be incorporated throughout all recommendations as the overall focus of the review.

Recommendation #5: To ensure consistent training and to maintain competence, the teams should rotate as necessary.

Discussion: We agree with this idea. All staff need training to operate this service safely. Safety has to be the one primary focus here and this is regulated under the supervision of Transport Canada. Training also includes training for the pilots and engineers. Allowances have to be made to include this annually. This must be incorporated into all operational practices and budgets associated. The success of any medevac flight must be focused on the experience and training of all MEDEVAC staff.

Recommendation #6: The air ambulance service should be organized as a single program with a single administrative structure.

Discussion: We agree with this recommendation and the focus of having a Provincial program being located under one umbrella of operation. The review should also include the process involved, involvement of key players and their representatives and challenges imposed by health policies and criteria. Only after reviewing the influences of Transport Canada policies and regulations can we move forward with providing solid recommendations to improve the air ambulance service.

There is no mention of the Transport Canada involvement in this report and even though this is a health service, its operation is guided by aviation regulations.

Recommendation #7: Data gathering, reporting and analysis must be standardized.

Discussion: We agree with this recommendation. However, there is no indication in the report as to how this might be accomplished. Data reporting and analysis must be collected and analyzed in a standardized format and not as it is done today. The data collection must be all inclusive, contain pertinent information to provide a clear picture of the successes and failures of the service to facilitate continuous improvements to the service. Improvements should be implemented utilizing a team approach involving all key stakeholders with built-in evaluation processes.

This review is missing some key variables such as geography, weather, services available, staffing level and a host of other variables. Consultation
did not take place with key stakeholders and there was no discussion of the implications. There is no planned follow-up of the changes and no analysis of how changes may have created further operational obstacles for the efficient operation of the medevac service.

**Recommendation #8:** If a third aircraft were to be considered it should be located in Deer Lake.

**Discussion:** We disagree with this recommendation as this review fails to acknowledge how the aircraft located both at St. John’s and St. Anthony clearly serves the needs of the west coast of the island. The aircraft response time from either location is the same by air as the time it takes to load a patient into an ambulance and drive to the Deer Lake Airport. If the aircraft can respond to this location in the same time it takes to get a patient to the airport, then the response time is not an issue. The analysis of the statistics for this review must include the number of flights coming out of the west coast to support the aircraft being located at St. Anthony. Response time to the west coast will be increased by the move to Goose Bay.

The point being missed here is that response time is the time it takes for the plane to get from where it is located when the call comes in to the location of the patient. Response time is influenced by many factors and variables and they have not been listed or considered in this review. Demand for the service is not solely based on the population of a particular area.

**Introduction**

This section should read that this report was prepared in response to a request of the Department of Health and Community Services and we recommend its focus should be on improvements to the entire Air Ambulance program for the province, not just for Northern Newfoundland and Labrador. The review should be focused on the specific location of the aircraft, as well as all associated variables and the influences of Transport Canada regulations on the service.

**Terms of Reference**

We recommend that the terms of reference be expanded to include the extra considerations mentioned:

- Review the entire Air Ambulance Program and all relative statistics.
- Consider the appropriateness of the placement of all Air Ambulance aircraft.
- Review all screening procedures for the dispatch of MEDEVAC flights.
- Review staffing levels including pilots, maintenance, dispatch, Medical Flight Team, and support staff.
• Review training and safety practices for the entire group and budget and plan for recurrency training.
• Investigate recruitment and retention of staff for the various areas of operation and challenges with housing and travel.
• Review current location of infrastructure such as hangars and provide projected costs associated with changing locations.
• Plan for a long term study into the effects of program change and establish a protocol for its review and analysis.
• Address the issue of a backup to the government service including charters, military and other government aircraft.
• Investigate a plan to keep the aircraft currently based in St. John's in the system (NLA) and its benefits and cost associated with keeping it in the service as part of the backup plan.
• Investigate the possibility of placing NLA at Goose Bay to further complement the air ambulance fleet. Look at this being either operated by Government or by the mining industry companies. Explore this aircraft being the backup and only used when the other two provincial aircraft are busy or are out of service.
• Investigate the possibility of having the King Air 350 located at Churchill Falls, operated by NALCOR as a backup aircraft for Labrador. Explore how this aircraft is located in central Labrador with a complement of pilots, engineers and hangar facilities.
• Look at past reviews and the issues of the day, changes that were recommended and steps taken. Investigate the results of the changes and how they affect the program today.
• Finally, a full inquiry should be done to investigate all fatalities with any connection in the past to Air Ambulance flights. Use the data here to analyse the situations and use this to further implement changes. The focus here should be to also review the thousands of MEDEVAC flights flown in this province and what we are doing correctly and should not change.

Methodology

This report was prepared using primarily the statistics for pick-up and destination locations, and consideration should be given to the services located in each place. Services available to any area affects the numbers of flights and a review should include this information. Consideration should be given to things such as the level of service, staff and the level of training, availability of equipment and to the nearest facility offering the level of care required. Flights unnecessarily to destinations not closest to the patient location involve the misuse of aircraft resources, crew duty time and cost of operating.

Discussions with all groups affected or involved in Air Ambulance operations should be considered. Key players include Government Air Services, Eastern Health’s Medical Flight Team and Labrador-Grenfell Health Air Operations.
Meetings with families are valid, but they should be representative of the province. They should also include families which have positive experiences from the Air Ambulance program to share. These consultations would give a true representation of how the program functions today.

**Background**

This section of the review contains some valid information, and we would like to add the suggestions that follow.

It mentions the older King Air currently stationed at St. John’s, but it fails to look into the complete picture with respect to this aircraft. We agree with the recommendation to purchase a new aircraft, but further investigations into exactly what to do with the older one should be explored. Look at the current condition and what the expected life expectancy would be. Give some cost analysis of what it will take to keep it in operation, as if the aircraft would be a back up aircraft. Today it flies an average of 1000 hours per year, but look at it as a back up, flying 300-400 hours per year and how long this could be possible. Give consideration to stationing this plane at Goose Bay and only flying when the two new aircraft could not respond in the time necessary. Look into possibilities of this being part of the Government system or an aircraft operated by the combined mining companies.

Reference is made to the type of aircraft used in the province and where it can land, etc. It is correct that the King Air cannot land on the gravel coastal runways. This is not a limitation of the aircraft, but a restriction of the airport itself. For years we have lobbied to have improvements made at Port Hope Simpson to accommodate both the Government Air Ambulance aircraft as well as the water bomber fleet. Service to this region could be improved dramatically with improvement to the Port Hope Simpson Airport. This will be addressed later in the analysis of the provided statistics.

**Aircraft**

We agree with some of the comments here with the exception that the Twin Otter does have only one stretcher, but has the capability and size to accommodate two. If this is an issue raised by the review, the solution is possible and relatively inexpensive.

As mentioned before, the Twin Otter can operate from gravel coastal runways, but emphasis should be on upgrading the Port Hope Simpson Airport as this area is connected by road and does have a road ambulance service in place. The North Coast of Labrador would still require a Twin Otter as the area is not linked by road.
We recommend that the Twin Otter aircraft be owned by Government and operated as part of its fleet. Currently its operation is part of a contract with a private company and subject to fluctuations in the economy and how it affects the company’s business.

Operation of the Twin Otter to the coastal communities is a key part of the service, but the location of the King Air has nothing to do with the service it provides. Due to the time required for the Twin Otter to travel to any of the coastal communities, stabilize a patient, and return to Goose Bay the King Air can be dispatched from St. Anthony to coincide with the arrival of the Twin Otter from the coast. Therefore, location of the King Air in St. Anthony does not impede timely MEDEVAC response for patients on the north coast.

**Dispatch**

The dispatch of the aircraft is first of all requested and medically authorized through the Medical Communications Center (MCC) and is organized through Government Air Services. They dispatch and flight follow the St. John’s based aircraft and conversely, Labrador-Grenfell Health (LGH) dispatches and provides flight following for the aircraft based at St. Anthony.

This process is in place due to Transport Canada requirements and that both organizations are independent in the eyes of Transport Canada.

This process could be reviewed to be restructured under one centralized management structure. Dispatch services will still need to be part of the process for Labrador-Grenfell Health to accommodate the movement of elective patients to and from Southeast Labrador.

**Flight Statistics**

The flight statistics presented in this response to the review do not encompass the statistics for the entire province. They do however highlight the use of the air ambulance aircraft based at St. Anthony and the response to calls throughout the province and beyond.

The statistics provide an example of the work that the aircraft has flown, percentages from all departure points and analysis of the trends. Interpretation of the data must include critical items such as the availability of escorts, the flight team and the fact that there is an abrupt end to the aircraft response to southeast Labrador. This is due to the King Air not being able to land there at all, whereas the former Commander aircraft did 50% of the MEDEVACS from this region to St. Anthony.

The upgrade to the Port Hope Simpson airport would once again bring this service back to that part of the province and we calculate that 75% of all work
from southeast Labrador could be completed by a St. Anthony based aircraft. The increase would be due to the aircraft being able to land at night where the Commander could not in the past.

With reference to the information contained in Table 1, page 4, the statistics should include two things: the population contained in Goose Bay within a given response time for the aircraft compared to the population centered in St. Anthony for the same response time.

The enclosed map demonstrates this point (Figure 1). The circle centered around Goose Bay represents the area able to be responded to by a King Air 350 in one hour of flying time. The area in the circle around St. Anthony also represents a one hour response. The enclosed table of statistics (Table #1) are the flights flown by the St. Anthony based aircraft and is meant to demonstrate its response to the province. For explanation purposes it is 45-50 minutes flying time from St. Anthony to Goose Bay depending on winds aloft. This is why the St. Anthony circle encompasses Goose Bay and the Goose Bay circle encompasses St. Anthony.

For calculation purposes, we added for the Goose Bay scenario, all flights including from St. Anthony, from Wabush, from Goose Bay, from Blanc Sablon and from coastal southeast Labrador, totaling 1148 MEDEVAC flights for the period.

For the St. Anthony scenario, we included all flights from St. Anthony, from Goose Bay, from Stephenville, from Deer Lake, from Grand Falls, from Gander, from Blanc Sablon, from Marystown, from St. John’s and from southeast Labrador, totaling 1434 MEDEVAC flights.

This represents 286 more MEDEVAC flights and a quicker response time to them by being based at St. Anthony. Upon inspection of the numbers for southeast Labrador, you will see a very even trend from 2006 to 2008 with an average of 36 MEDEVAC flights. In 2009 this dropped to 2 flights as we introduced the new King Air into service in January, thus ending the response to that area of the province. A review of the statistics in Table 1 shows a decrease in the number of flights flown by the St. Anthony based aircraft. This decrease coincides with the implementation of the Medical Flight Specialist Team at St. John’s. As this team made its presence known throughout the province, hospitals with patients needing a MEDEVAC transfer called for the Medical Flight Specialist Team to complete the transfer, primarily due to the lack of nurse escorts in the province and the cost associated with getting them back home. As a result, the demand for the St. Anthony based aircraft began to decrease, highlighting the need for a second Medical Specialist Flight Team.

As stated before, the upgrade to the Port Hope Simpson Airport would allow the King Air at St. Anthony to respond to at least the yearly average of 36 and we
predict that number to be as high as 55 flights. This increase is based again on the fact that these statistics represent the flights completed by the Commander aircraft completing only 50% of all flights due to night time restrictions. We estimate being able to cover 75% or more of the requests, thus raising the total to 55 flights.

For comparison purposes, the southeast coast is covered by both Goose Bay and St. Anthony, but the difference here is based on both the response time and the flying time associated with each trip. For example, a MEDEVAC flight from the “new” Port Hope Simpson Airport will require 40 minutes Goose Bay to Port Hope Simpson, 20 minutes Port Hope Simpson to St. Anthony and 50 minutes St. Anthony back to Goose Bay, for a total of 1 hour and 50 minutes. For the same patient originating out of St. Anthony to Port Hope Simpson, 20 minutes and return 20 minutes, we have a total of 40 minutes, making the flight time 1 hour and 10 minutes more flying time to complete the flight from Goose Bay. Based on $1500.00 per hour of operation you get a total of $1800.00 extra per trip - multiply this by the 55 expected flights for a total of $99,000.00 extra, plus the longer response time.

These figures would be very similar for medevacs from Blanc Sablon. Approximately 1 hour and 15 minutes extra flight time at $1500.00 per hour, multiplied by 205 flights for the four year period at an estimated cost of $399,750.00 - plus longer response time.

Given consideration here to the fact that the majority of the MEDEVAC flights for the province are destined to St. John’s, one can quickly see that operating from St. Anthony provided a quicker response time at a significantly reduced operating cost to the Government.

Table 2 shows that if we were to fly the patients from the past four years from the same originating location to the same destination with the aircraft based out of Goose Bay, we would see an increase of 875.7 hours in flying time, an increase of over 1.3 million dollars and an increase in response time.

On page 5, there is a table containing “Transport from Forteau to St. Anthony”. These are the patients picked up at the Blanc Sablon Airport. This is the closest airport to this section of southeast Labrador that runs from L’Anse au Clair on the border to Red Bay. The transfers from Forteau to St. Anthony are MEDEVAC flights coming to St. Anthony and should be added to the St. Anthony total, the closest referral center.

On page 5, Point 2(a) shows no justification to changes in referral for patients of southeast Labrador. Currently, patients are flown to St. Anthony for care and a small percentage is moved further, usually to St. John’s. This adds to the reason for the King Air to be stationed at St. Anthony. On the other hand, if patients are flown back to Goose Bay instead of St. Anthony and giving consideration to the
level of services in Goose Bay and referral pattern there, most patients will end up being transferred on to St. John’s resulting in a three hour total flight compared to a 30 minute flight to St. Anthony.

This does not address the significant inconvenience and cost to the patient because they end up further from home and have to pay a significant amount more to fly home once released from hospital.

Point 2(b) on page 5 gives no explanation as to why all of a sudden patients from southeast Labrador now will by-pass St. Anthony for St. John’s. This gives no consideration to patients being transported to the nearest suitable facility offering the services required and no consideration for the cost associated.

**Medical Flight Service Teams**

The Medical Flight Services Team has been the most criticized feature of the air ambulance system and therefore should be the #1 recommendation. The lack of a second team to base with the St. Anthony aircraft is the single greatest cause of response time delays to any patient in any location in the province.

The Medical Flight Services Team is a highly trained group which operates with a critical care nurse and an advanced care paramedic making up a team. The skills they have and need to maintain, is part of the training and routine skills maintenance schedule. This skills maintenance would be easier to avail of based at St. Anthony due to the level of services offered there and not in Goose Bay. The particulars of their operation and the challenges associated could be better addressed by management personnel at Eastern Health responsible for the Medical Flight Services Team operation.

Mention is also made here of the Neonatal Team based at the Janeway Hospital, St. John’s. This team provides neonatal service to all areas of the province, as well as destinations outside the province. The King Air based at St. John’s would of course be the primary aircraft to service the “Janeway Team”, but no consideration was given in this review to the extra 45 minutes delay responding to them if the aircraft is located from St. Anthony to Goose Bay. This review once again does not make mention of having consultation with the Neonatal Team and the impact this would have on their service.

**Aircraft Crews**

The aircraft crews and their numbers have a significant impact on the level of service. We agree with the concept of 24/7 coverage, but there is no mention of Transport Canada rules and regulations around crew flight times, duty days and times free from duty. We recommend some further investigation into how we are
to take a healthcare program such as the Provincial Air Ambulance Program and mesh it with Transport Canada regulations to provide a quality service.

In this case, having policies and procedures can only be applicable if Transport Canada allows. At no point is consideration given for training procedures for crews, including recurrency training, budgets for this expensive training and how this affects the overall safety of the program. This study does not explain the challenges faced by flight crews in providing this service. There are an incredible number of variables associated with the operation of an aircraft and they are only complicated by adding healthcare to the process.

At no point does the report discuss the role of maintenance and the requirements for aircraft engineers. Its simple mathematics - the more you fly, the more pilots you need and the more engineers you require to maintain it safely. At no point is there an analysis of the entire MEDEVAC demand for the province. Does the need far exceed the capabilities of the current level of service?

As an operator, we have advocated for years the need for additional crews, both pilots and maintenance. We have proposed for an additional flight team all in an effort to meet the demand, to provide a timely response and to operate SAFELY.

We feel that recommendations have to address the aviation side of the program. All the more reason why changes should be focused on what we are doing correctly by buying new planes, funding crew training annually and promoting a safety culture driven by high standards and not by response time.

**Third Aircraft**

The requirement for a third aircraft in the program should be based on the need for it. Currently we have three aircraft - one at St. John’s, one at St. Anthony and one at Goose Bay (Twin Otter) all flying approximately 1200 hours each per year.

Many possibilities exist on how to restructure this program and they are not explored in the review. Moving the St. Anthony aircraft to Goose Bay improves the response time to approximately 40,000 residents and in doing so, adds to the response time for approximately 140,000 residents.

We see the following as points of consideration when looking at the fleet requirement for the province. The Twin Otter at Goose Bay will always be a requirement as the north coast will never be connected by road with a regional airport. We recommend a review to determine whether or not this is justifiable considering the other two aircraft fly 1200 hours on average. A Government owned Twin Otter would relieve some of the pressures faced by the program today. As a footnote, the Twin Otter currently on contract to L-G Health is a 1971 model with 54,854 hours of flight time logged.
Secondly, once a new aircraft comes online at St. John’s, there is no plan for the King Air (NLA). This aircraft has not lived out its life expectancy. This is certainly a high flight time aircraft requiring more maintenance and downtime than a newer aircraft. Its 14,000 hours or so is far from its life expectancy when other companies in the province operate similar models with 25,000+ hours of flight time.

Has any study been done to explore the option of keeping this as a backup for the provincial fleet?

Has a cost analysis been done to forecast the maintenance cost and projected life of this aircraft?

Has consideration been given to the King Air 350 currently based at Churchill Falls operated by NALCOR? This is the same model of aircraft complete with pilots, engineers and hangar facilities. This aircraft could be outfitted quickly to respond to any accident in Labrador when the primary aircraft are busy or down. This aircraft operates with four pilots and therefore could easily be available to provide some coverage for Labrador. Just in comparison, the aircraft at St. Anthony operated for years with four pilots and provided a great service to the province.

Lastly, charter aircraft will always be used as a backup and consideration needs to be part of this review. Keeping NLA in the system seems to be a credible suggestion considering one of the aircraft currently used as a backup is a Beechcraft King Air 100, a 1972 model that has 15,200 hours of flying time logged.

**Airports**

Airports play a key role in the delivery of the service, particularly the airport proposed for the Port Hope Simpson region of the province. We feel this must be upgraded to accommodate the Government Air Ambulance and Water Bomber fleet. Air Ambulance response to this area is critical and the rapid response from a St. Anthony based aircraft will be key to residents of this area of Labrador.

**Recommendations**

In light of the experience here in St. Anthony and the challenges faced in providing an emergency service, we respectfully make the following suggestions as ways to improve the Air Ambulance service to both Northern Newfoundland and Labrador, as well as the entire province:

- Second Medical Flight Specialist team located at St. Anthony.
• King Air (NLF) to remain at St. Anthony.

• Replacement aircraft for St. John’s and a plan to include the current aircraft (NLA) in the program based in Goose Bay.

• Provide additional staff, including pilots and engineers.

• Combine the entire program under one management team.

• Upgrade the runway at Port Hope Simpson to accommodate both the Air Ambulance aircraft and the Water Bomber fleet.

• Do a complete review of safety procedures and Transport Canada regulations and how they affect the program.

• Let a review focus on the views of past users and do a province wide investigation of flights with both positive and negative results.

• Include in the review the experience level of the current staff and focus on the safety record we have. This program should include key issues such as aircraft equipment, crew training and experience levels.

• Focused under a joint management system would be the maintenance of all aircraft to include the parts inventory, maintenance scheduling and staff allotment and training.

• Complete an extensive review of air ambulance to involve all stakeholders in the program. Review policies, procedures, challenges and how they are influenced by Transport Canada rules and regulations.

**Conclusion**

The Air Ambulance program has been a key part of health care in St. Anthony for nearly sixty years. It was developed and grown to be the outstanding program we have today. Over the years, it expanded its coverage to include the province of Newfoundland and Labrador and today, is a service second to none.

Hard work, determination and persistence have played a role in saving thousands of lives. Like all other healthcare programs, unfortunately, not every outcome has a positive ending. This service faces many challenges and even though there are deficiencies, many relate to a lack of resources when trying to operate 24/7, 365 days a year.

As a staff both past and present, we offer compassion, determination, hard work combined with incredible experience. In return we receive respect, admiration,
experience and job satisfaction from being part of a team that has helped to save thousands of residents of this province.
Figure 1  Air Ambulance coverage based on the flight time response of one hour for a King Air 350 aircraft based at St. Anthony compared to Goose Bay.
Table #1: Air Ambulance flights using St. Anthony based aircraft

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<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>SA Aircraft Total</th>
<th>Percentage of Aircraft Work</th>
<th>Provincial Total Per Location</th>
<th>Percentage of Provincial Total Per Location SA Aircraft Flew</th>
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<td>8</td>
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<td>3%</td>
</tr>
<tr>
<td>Other (including Out of Province and other regions of the island)</td>
<td>18</td>
<td>6</td>
<td>2</td>
<td>4</td>
<td>30</td>
<td>1.9%</td>
<td>40</td>
<td>75%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>461</td>
<td>403</td>
<td>318</td>
<td>384</td>
<td>1566</td>
<td>100%</td>
<td>4169</td>
<td></td>
</tr>
</tbody>
</table>

Note 1: Based on the above information, over the 4 year study period, the St. Anthony based aircraft flew **1566 of the 4169** provincial MEDEVAC flights. This means that the aircraft based at St. Anthony responds on average, to 38% of all MEDEVAC calls province wide.

Note 2: Based on the above information, over the 4 year study period, **2781 of the 4169** MEDEVACS were done on the island portion of the province or from out of province, which equates to **67%** of all air medical transports. This includes 580 patients originating from St. Anthony leaving 2201 patients originating from the remainder of the island or from out of province. Of the total 2201 patients, 418 were picked up by the air ambulance based in St. Anthony.

Note 3: Of the 1566 patients that the St. Anthony based air ambulance performed over a four year period, 910 of these patients were from the island portion of the province or from out of province. Of these 910 patients, 492 were picked up in St. Anthony and 418 originated from other parts of the island or from out of province.
Table #2

Table 2 is **not** a prediction of future costs. Future costs will be impacted by changes in the utilization of the aircraft (i.e., such as the implementation of a Medical Flight team) that at this point, cannot be predicted.

Table 2 is based on historical data from the past four years. It is an illustration of the additional cost and flying time that may have been incurred if the aircraft had been based in Happy Valley-Goose Bay.

**Table #2.** Air Ambulance analysis comparing flight times for a four year period focused on flight hours and cost associated.

<table>
<thead>
<tr>
<th>Medevac Number &amp; Location</th>
<th>Time to patient, to St. John's, to base</th>
<th>Flight Time</th>
<th>Extra Hours</th>
<th>Extra Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>(100) Wabush</td>
<td>GB 0+50, 2+15, 1+50 SA 1+35, 2+15, 1+00</td>
<td>4 hrs 55 min 4 hrs 50 min</td>
<td>Not Significant</td>
<td>Not Significant</td>
</tr>
<tr>
<td>(240) Goose Bay</td>
<td>GB 1+40, 1+50 SA 0+50, 1+40, 1+00</td>
<td>3 hrs 30 min 3 hrs 30 min</td>
<td>Not Significant</td>
<td>Not Significant</td>
</tr>
<tr>
<td>(31) Stephenville</td>
<td>GB 1+25, 0+55, 2+00 SA 0+55, 0+55, 1+00</td>
<td>4 hrs 20 min 2 hrs 50 min</td>
<td>1+30 x 31= 46.5 hrs $69,750.00</td>
<td></td>
</tr>
<tr>
<td>(120) Deer Lake</td>
<td>GB 1+20, 0+50, 2+00 SA 0+35, 0+50, 1+00</td>
<td>4 hrs 10 min 2 hrs 25 min</td>
<td>1+45 x 120=216 hrs $324,000.00</td>
<td></td>
</tr>
<tr>
<td>(50) Grand Falls</td>
<td>GB 1+30, 0+35, 2+00 SA 0+35, 0+35, 1+00</td>
<td>4 hrs 5 min 2 hrs 10 min</td>
<td>1+55 x 50=95 hrs $142,500.00</td>
<td></td>
</tr>
<tr>
<td>(53) Gander</td>
<td>GB 1+30, 0+30, 2+00 SA 1+00, 0+25, 1+00</td>
<td>4 hrs 0 min 2 hrs 25 min</td>
<td>1+35 x 53=85 hrs $127,500.00</td>
<td></td>
</tr>
<tr>
<td>(19) Marystown</td>
<td>GB 1+50, 0+25, 2+00 SA 1+00, 0+25, 1+00</td>
<td>4 hrs 15 min 2 hrs 25 min</td>
<td>1+50 x 19= 34 hrs $51,000.00</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Medevac Number &amp; Location</th>
<th>Time to patient, to St. Anthony, to base</th>
<th>Flight Time</th>
<th>Extra Hours</th>
<th>Extra Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>(205) Blanc Sablon</td>
<td>GB 0+40, 0+15, 0+50 SA 0+15, 0+15</td>
<td>1 hr 45 min 0 hr 30 min</td>
<td>1+15x205=266.5 hrs $399,750.00</td>
<td></td>
</tr>
<tr>
<td>(111) Coastal Labrador</td>
<td>GB 0+40, 0+20, 0+50 SA 0+20, 0+20</td>
<td>1 hr 50 min 0 hr 40 min</td>
<td>1+10x111=133.2 hrs $199,800.00</td>
<td></td>
</tr>
</tbody>
</table>

**Totals** | 875.7 hours | $1,314,300.00 |

**Note:** Operating cost of aircraft per hour $1500.00
GB (Goose Bay)