



The NStar Chronicle

Project North Star Association of Canada

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Editor's Notes

Roger Button

This is my first effort as editor of the Chronicle. I would like to acknowledge the assistance of other members of the Association, and in particular the former editor Bruce Grant and the publisher Drew Hodge. I would also like to thank Jennifer Morse, the general manager of The Royal Canadian "Legion" Magazine for permitting us to include the "Operation Hawk" article. As you will read in the President's Notes, 2014 was a difficult year for the Association. The last edition of the Chronicle was published in the Spring of 2014. We are all looking forward to a better year and the continued publication of the Chronicle will, hopefully, foster an improved relationship between the Association and its members. In order to carry out its mandate the Association is always seeking the input and assistance of its members. In particular we are actively looking for volunteers to help with the running of the organization. This edition contains an invitation by the President to assist in the events coordination and merchandise functions. Please do not be shy about letting us know if you or someone you know might be interested. As volunteers are key to the successful operation of the Association I have continued the tradition by including an article on John Corby prepared by my predecessor Bruce Grant. If any of our readers have comments about the Chronicle or suggestions for future content please let me know. Contributions are welcomed.

PNSAC

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Notes from the President

Richard Lodge

It is a year since I last wrote Notes from the President for the NStar Chronicle. During this time there have been many changes within the Project North Star Association.

In my last Notes, I referred to the temporary closure of restoration work by PNSAC volunteers on the North Star. We effectively did not restart operations until the middle of last year which resulted in a considerable loss of momentum for the Association as a whole together with the resignation of some of our directors and officers.

Last November we held our Annual General Meeting, which will in future be held in the Fall rather than in the summer when many of our members are on vacation. At this AGM two new directors were elected to replace two out of the three directors who had resigned.

We were very happy to welcome Roger Button and Phil Chrysler as new directors. Roger has been our corporate secretary. Phil has been our merchandise manager for several years and has also acted as assistant treasurer to the Association.

Drew Hodge, our long time NStar Chronicle publisher and webmaster, has after ten years, decided that he would like to spend more time on his other interests and did not stand for re-election as a director. Drew will continue to publish the NStar Chronicle and we are very pleased to welcome Garth Pyper as our new webmaster.

Bill Tate has been our vice president and highly regarded special events coordinator for several years but decided that it was time to hand over to someone else.

Bruce Grant, who has ably editor the NS Chronicle for several years, also decided not to continue as a director and officer. Roger has agreed to take over

the editor's job where I am expecting that his word smithing abilities as a lawyer will come in handy.

The table officers of the Association are now: myself as president; Bruce Gemmill, our senior project manager, as vice president; Roger as secretary; and Paul Labranche as treasurer.

While the changes have been taking place with the executive of the Association, work has continued with our main reason for being; the restoration of the North Star. Elsewhere in this issue you will find a progress report on the work on the aircraft which as always is being done to a very high standard.

The North Star restoration project, now in its twelve year, will shortly be entering a new phase. Work on the fourth engine will be complete in a few months and we are now reworking our work plan for the restoration as a whole, in conjunction with the conservation professionals at Museum. In a future issue of the NStar Chronicle we hope to provide members with the broad outline of the updated work plan, together with anticipated time scales and funding requirements. Since the Museum does not receive government funds for the North Star restoration, future major work on the aircraft will have to be financed by donations from members and other people interested in preserving a plane which contributed so much to Canada's military transportation needs in the late 1940s through to the early 1960s.

During the summer we hope to have two major displays of the North Star for Association members and the general public. The first will be during the weekend of June 6/7 when we will be taking part in Doors Open Ottawa and the second will be our usual display on Canada Day. As always, Association members will be particularly welcome at these displays and will be able to see the results of the excellent work being done by the volunteers on the plane.

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Project Manager's Progress Report

April 2015

Bruce Gemmill

Since our last Project Report, our project has gone through much upheaval, and work has been delayed for a number of reasons. However, I can report now that we are back on track and making steady progress on several parts of the North Star. This report tracks progress since April 2014.

Restoration Shop Shutdown

Engine #3 was in the final stages of assembly when we had to shut down our project at the end of December 2013, to make way for other museum work, in preparation for events to mark the 100th anniversary of the beginning of the First World War in 2014. In particular, new exhibits in the museum required all of the available floor space in the shop, as well as full time work by all museum conservation staff, meaning the volunteer crew could not be supervised as usual.

However, two volunteers, myself and Peter Trobridge, were allowed to work on the aircraft during the shutdown between January and July 2014. The focus was on completing the assembly of the cockpit and crew lounge. More on this later.

Engine Frame

Nr 3 engine frame was completed after the installation of the engine and supercharger. Fitting the many cowl panels proved difficult, due to the extensive rework that many of these items went through, causing some alignment difficulties when fitting these panels onto the engine frame. This work was done after work resumed in July 2014, and the completed engine was successfully installed on the aircraft last summer.

Nr 4 Engine

The last engine to undergo restoration was removed in July and work immediately began in the engine shop to disassemble the engine frame and move the engine to the engine stand for restoration. All cowl panels, pipes, hoses and accessories have been removed and stored until space is available to restore these items. The priority has been to disassemble the engine, which was completed in October, and restoration and reassembly of engine 4 is now well

under way. The refurbished crankshaft has been installed in the engine block, and the connecting rods and pistons cleaned and polished. Work has now begun on the more complex cylinder heads and valve train assemblies.

Normally, work would also be under way to restore the engine frame, but due to a lack of space, this will be delayed until the engine is back together and can be moved out of the engine shop. Some cleaning and paint stripping has been done, but further work on the frame will likely have to wait until more space is available for full restoration of this large item. This work will likely delay the completion of Nr 4 engine until 2016.

Cockpit, Crew Lounge, Galley, and Forward Washroom

Since our last report, the crew lounge and galley equipment was fully restored. A new wall was installed in the galley, as the old wall contained asbestos and needed to be removed for safety reasons. The galley cupboards were badly corroded, so a new set was built, with only the original doors remaining. This was installed in the galley, along with the auxiliary hydraulic reservoir, after two sections of the floor were patched to repair corrosion damage. New flooring was cut and glued in the crew lounge and washroom, then the washroom equipment was installed, including the toilet and washroom door, and the vanity sink and mirror.

The five crew seats that had been removed early in the project were finally installed in the cockpit, after installing the radio operator and navigator tables, and the appropriate seat rails. We also installed new cockpit curtains, and completed these crew positions by installing a donated headset and several microphones, along with a Morse code key at the radio position.

The seat rails and seats for the crew lounge were installed, along with the crew table and secure stowage case. The crew bed was installed above the crew seats, and then the curtain rod with a new set of curtains was installed to complete the crew lounge. The access door to the crew area has not been fully restored, but it was re-installed with a new lock to secure the forward portion of the aircraft. The cockpit, crew lounge and forward washroom are now complete. This is a significant milestone for the project, and has been very popular with select museum visitors who have been allowed access.

Fuselage and Main Cabin

The baggage compartments are now fully restored, and the refurbished battery elevators were installed just aft of the nose wheel. Work has now begun on the main cabin. This started with removal of various fittings along the starboard side of the cabin, then removing the wood panelling below the windows, and then removing the wood cargo floor panels to expose the metal sub floor. Most of the side panels and some floor panels are badly damaged and will need to be replaced. The fittings for patient litters and troop seats were also removed. Finally, the starboard windows were removed. Once all the fittings were removed, work began on repairing corrosion damage along the exposed ribs and sub floor.

The rear washroom was also dismantled, after removing the toilet and fittings. The floor under the toilet was badly corroded, and the old floor panel was removed. This required drilling out approximately 1000 rivets! A new panel has been made and will be installed shortly. Portions of the corroded rear bulkhead were also removed, so that new panels can be installed. Some items were also removed from the tail section, to allow for thorough cleaning and spot priming bare metal where necessary. During this work damage was discovered on the torque tube that controls the movement of the rudder. This was unexpected, and will require removal of the tail cone to allow for a new torque tube to be fitted.

Several badly corroded sections of the starboard side of the cabin have been repaired, and work continues with corrosion repairs and other cleanup while the aircraft is inside. Part of the forward cargo door has been removed for restoration. The para-troop door insert is complete, and the remaining portion of the forward cargo door is being stripped and repaired prior to painting. It is likely this will have to be re-installed on the aircraft before all painting and restoration is complete, so as not to delay its move outside.

A major effort was launched to restore the large heater ducts removed from the main cabin. These were covered with formed mica insulation sections, which were removed earlier. Many of these sections fell apart and could not be reused. After many repairs to the metal ductwork, new sections of mica were formed in a jig and glued to the ducts. These duct sections are in storage waiting for completion

of the main cabin so they can be installed on the ceiling.

Work has now begun on the port windows and wall sections. We hope to complete the windows soon, as these must be installed before the aircraft can be moved outside.

Cabin Liners and Troop Seats

The original cabin liners were removed from the aircraft earlier in the project. These had been washed and stored until repair work could be done. All liners were unrolled, photographed and assessed for damage. Some liners will be repaired, while others, particularly the cargo door liners, need to be replaced because the fabric is too badly deteriorated. A sewing station has been set up in the storage hangar, and several of the new liners have been completed. These will need to have new fasteners installed, then painted to match the original liners.

The North Star was originally fitted with troop seats down both sides of the main cabin. These could be stowed against the wall to make room for cargo, or unrolled and set up to carry military personnel. The original seats were removed by the RCAF, so a decision was made to make a new set, using funds donated by Project North Star members. Seat fabric, steel and aluminium tubing was ordered, and the troop seat sections were fabricated, based on available drawings. All seat sections have been completed, and have been stored until the main cabin is completed.

Planned Restoration Work—2015

Over the next year, we will continue to work on Engine 4 and the main cabin and tail section. The aircraft will be moved outside this summer for some interior painting. This means the windows and doors will need to be installed for weatherproofing and security. During this time we also hope to begin fabricating new wall and floor sections. One other work item that may be started is to clean and restore the four engine nacelles. Pipes and fittings need to be removed, followed by a thorough cleaning and a fresh coat of paint. This work may be delayed until qualified volunteers become available.

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North Star Merchandise

Phil Chrysler

The idea for North Star merchandise started with a need to identify those volunteers that were assisting when the aircraft was put on display to the general public. That requirement evolved into the blue member's only crested golf shirts (men and ladies). Over time we have added baseball caps, toques sweatshirts, T-shirts and fleece vests (by special order) all with the North Star crest. Also a 1:200 scale model of the aircraft was produced in limited numbers of which we still have a few. With the exception of the members only golf shirt all the other items are available at the Aviation and Space Museum store. The items are available to members of the North Star directly at a discount.

We also have a CD of the North Star operating manual and a North Star pin that are not available in the Museum store.

From the beginning our purpose was to bring more awareness to the general public of our restoration activities rather generate money on the sale of the items. So we have made an effort to keep the quality high and profits modest. All money earned is used to advance the restoration effort. The North Star web site has prices and pictures of the available items.

Merchandise page: <http://www.projectnorthstar.ca/menu-merchanidise>

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Volunteers Needed

Richard Lodge

The Project North Star Association has two types of volunteers. The first are known as Restoration volunteers and they are the group who get their hands dirty and physically work on the restoration of the aeroplane. The other group are known as Association volunteers and they work in other very important areas of our Association.

At present we are not looking for any more Restoration volunteers but we do have a need for some Association volunteers. In particular we are looking for a Social Events Coordinator and a Merchandise Manager and volunteers who would work with those officers. These volunteer posts have become open because the existing volunteers have held the positions for some years and in each case have decided that it is time to pursue other interests within the Association.

Below are brief details of the requirements for each volunteer position. By volunteering for one of these functions, a volunteer will become more involved with Association activities and will enjoy the

comradeship and rewards of working with a very interesting group of people who have many diverse life experiences.

The Social Events Coordinator is the person responsible within the Association for overseeing and organizing events for members. Typically, he or she would, with the assistance of others, organize the Members Meetings which are mostly held every three months and such other events as he or she might agree to run as approved by the Board of Directors.

The Merchandise Manager is responsible for managing the Association's stock of merchandise for sale, setting the ordering levels as agreed with the Board of Directors, placing orders for new stock and ensuring that sales and inventory levels are properly reported to the Treasurer. Other volunteers assist the Merchandise Manager in the work.

If any of our members are interested in taking over one of these positions or working with these officers or know of a non-member who would be interested, please would he or she contact me by email at info@projectnorthstar.ca or by phone on (613) 612-4920.

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My First Flight

John Corby, with Bruce Grant

At the end of the war, the Australians were very anxious to get British people to immigrate there, and so they had an offering at £10, almost a free passage. Of course, at the end of the war there was a distinct lack of shipping, so much had been sunk, and some of the ships that were left were not really equipped for passenger carrying anyway.

I put my name down with Shaw Savill Line, and periodically I would go up to London to Leadenhall Street to see how my name was progressing down the list. The guy would say "Name? ah yes, Corby", thumb through the pages and he'd say "About eighteen months—we'll give you a call". Well, being young and impatient, I didn't like this very much.

The Americans during the war had a vast establishment in Piccadilly called Rainbow Corner, probably the biggest PX in the world. End of the war they all went home and the Ontario Government took it over as an immigration centre.

There was a sign up: **Emigrate by Air to Ontario Now! £70.** That was a lot more than Australia's £10 of course, but then it was a lot closer. I thought if I don't like it, I can come back. I went in; that would

probably be in August of 1947. I went back for a medical, and on October 13th 1947 I landed in Toronto.

We flew from Heathrow. The aircraft was a North Star, but not in TCA livery; it was—something else. I think the idea was—they were trying to prove that they could maintain this schedule across the Atlantic. They didn't want their name on the planes until they had proven it. Just in case ...

There was at the time a tremendous controversy over these Rolls-Royce engines. The opposition was all over the government. These engines were designed for wartime service. In the war, we'd be losing ten to fifteen planes every day, ninety-five in the Nuremberg raid; that was the worst day. The engines were designed for maximum performance, not for reliability and longevity.

When the airlines contracted for these engines, Rolls-Royce guaranteed that they would do the job. Well, at first they didn't do the job. But when I flew on them, they obviously did the job!

That was the first time I had ever been in a plane. It took 13 1/2 hours flying time from Heathrow to Toronto, plus a stop in Gander. They refuelled there and they also fed us a big breakfast—of pancakes and maple syrup, another first and my introduction to Canada. When I got to Toronto, my ears rang for two days afterwards until I got my hearing back.

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Operation Hawk

Hugh A. Halladay, Legion Magazine

Photos courtesy of Library Archives Canada and 426 Thunderbird Sqn, RCAF.

In 1947, while Prime Minister Mackenzie King was in London, his Minister of Foreign Affairs (and chosen successor), Louis St-Laurent, consented to Canadian participation on the United Nations Temporary Commission of Korea (UNTOK). On his return to Canada, King furiously confronted St-Laurent. He wanted no part—even at the fringes of Korean affairs, which he considered dangerous.

St-Laurent, in turn, threatened to resign. Ultimately, the old prime minister backed down. The incident marked a phase in the changing of the guard in Ottawa, and a movement towards increasing Canadian involvement in international affairs.

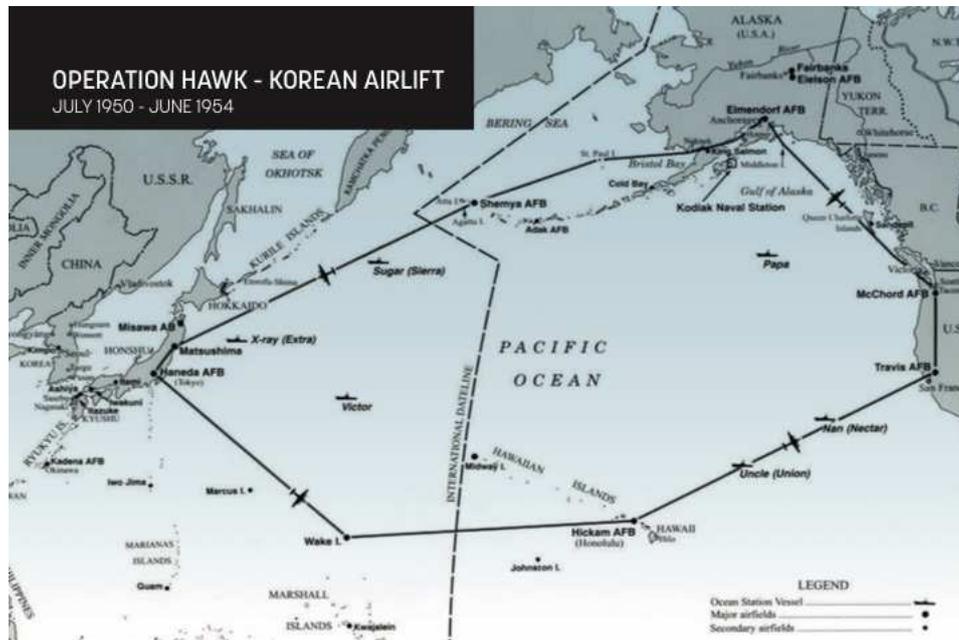
Mackenzie King died on July 22, 1950. As he

lay in state in the Parliament Buildings, six North Star aircraft of No. 426 Squadron flew over, saluting his passing as they were en route to Tacoma, Washington, to commence a Royal Canadian Air Force transoceanic airlift in support of United Nations forces fighting in Korea.

It is not known if the former prime minister was spinning in his coffin.

Although the RCAF had considerable air transport experience during the Second World War, only the work of No. 168 (Heavy Transport) Sqdn., delivering service mail to Europe, constituted a sustained transatlantic operation. With the retirement of its Fortress and Liberator aircraft, which were converted from bombers to freighters, the RCAF briefly lost its long-range transport capability. This gap was soon filled by the Canadair North Star, built in Montreal for the RCAF, TCA (Trans-Canada Airlines and later Air Canada) and other civil carriers.

The North Star was basically a Douglas DC-4, but with Rolls-Royce Merlin in-line engines instead of



Pratt-and-Whitney radials. It was a dependable aircraft, but generations of passengers and crew would remember the tremendous noise and vibration in flight. The full story of this is related by Larry Milberry in his 1982 book *The Canadair North Star*.

Deliveries of the new aircraft to the RCAF were delayed when priority was given to TCA to help it establish a Canadian presence in transatlantic commercial flying. Crews of No. 426 (Thunderbird) Sqdn. finally began North Star training early in 1948, and actual operations on the type commenced that summer.

While the RCAF did not participate in the July 1948 to May 1949 Berlin Airlift, a few individual aircrew did while on exchange duties with the Royal Air Force and United States Air Force. As it happened, the airlift seriously degraded the USAF Military Air Transport Service (MATS) after flour and coal dust penetrated the seams of every participating aircraft. When it was next marshalled to meet the Korean crisis, MATS needed all the help it could get—and that was forthcoming when the Canadian government committed No. 426 Sqdn.—its only long-range transport unit—to the Korean campaign.

In recounting the RCAF's transpacific operational story, one must pay tribute to Laurence Motiuk, author of two monumental volumes, namely *Thunderbirds at War: Diary of a Bomber Squadron*, and *Thunderbirds for Peace: Diary of a Transport Squadron*, which set out the history of No. 426 Sqdn. The latter work was particularly difficult to write, given that in the 1950s, RCAF units often submitted incomplete historical narratives and in some in-

stances neglected to prepare any at all.

Motiuk's account of the postwar squadron was drawn from numerous unofficial records, including log books as well as the sketchy unit reports.

Almost from the moment that North Korea launched its invasion of South Korea on June 25, 1950, No. 426 Sqdn. personnel were preparing for overseas operations. If Canada was going to be involved, that unit was certain to be mobilized. Cabinet approval came through on July 19, 1950. The squadron cancelled all further transport work with the exception of vital northern resupply.

Deployment to McChord Air Force Base, Tacoma, Washington, began on the 25th. Six North Stars, 12 crews and 185 ground personnel were dispatched. Two-thirds of the aircrew were veterans of the Second World War; the remainder were men who had joined the RCAF after 1947. Three of the aircraft left Tacoma on the 27th, arriving at Haneda in Tokyo two days later. Operation Hawk was under way.

It might be noted that No. 426 Sqdn. was not alone in supporting operations in Korea. Historian Carl Mills reminds us that Canadian Pacific Airlines provided charter services to MATS from August 1950 to March 1955, conducting 703 transpacific flights. Unlike the RCAF operation, these involved passengers only. They lost one aircraft (CF-CPC), a DC-4 with seven crew members and 31 passengers on July 2, 1951. The aircraft, outbound from Vancouver, disappeared near Yakutat, Alaska; no trace was ever found.

The North Stars followed a challenging route. From McChord to Elmendorf Air Force Base in



Alaska was 1,490 miles. This was followed by a 1,537-mile run to Shemya Air Force Base in the Aleutian Islands. Next came the 2,104 mile flight to Haneda in Tokyo, with the aircraft making landfall at Matsushima (Honshu, Japan).

The Shemya-Matsushima leg was particularly challenging; care had to be taken not to drift into Russian airspace, a task complicated by Russian efforts to jam radio and navigational aids. Depending on the season, the aircraft might return by the same route, or take a more southerly central Pacific track from Haneda to Wake Island to Hickam Air Force Base in Honolulu. From there the aircraft would journey to Travis Air Force Base in San Francisco, and then on to McChord.

Initially it was hoped the unit could dispatch one sortie per day, but this proved beyond the resources of a six-plane outfit. Eventually, No. 426 found it could send off five aircraft per week. Not surprisingly, its peak activity coincided with the buildup of United Nations forces in Korea and their maintenance during the period of mobile warfare.

Between July 28 and Dec. 31, 1950, the squadron dispatched 123 aircraft across the Pacific. In the whole of 1951 it was 193 missions, but in 1952 it dropped to 133. Not only were the Thunderbirds returning to more traditional duties in Canada, they were also assuming the job of providing transport, including personnel rotation, to Canada's growing land and air presence in Europe. In 1953—the last full year of Hawk—it was 85 missions.

The final Hawk mission departed McChord on May 31, 1954, and ended at the squadron's home base at Dorval on June 9, 1954. As it wound up, an RCAF dispatch reported that No. 426 Sqdn. had flown 599 round trips—four of them directly to Korea itself—logged 34,000 flying hours, carried 13,000 personnel, and airlifted 3,500 tons of freight. The report erred on two points. Six flights (not four) had

gone directly to Korea. The other discrepancy was that there were only 584 missions; for some unknown reason the numbered listing of flights had jumped from "439" on Nov. 26, 1952, to "455" on Nov. 28, 1952; the inaccurate 1954 press release continues to be quoted, ad nauseam, to this day.

Operation Hawk was accomplished with no fatalities but some close calls and more than a few incidents. On Sept. 15, 1950, Wing Commander C.H. Mussells, Commanding Officer of No. 426 Sqdn., departed McChord for Elmendorf with American soldiers and anti-tank ammunition. Both were urgently needed in Korea, so the aircraft had been permitted an overload clearance.

Three hours after takeoff, one of the Merlin engines began overheating through a coolant leak. Mussells shut down the engine, feathered the propeller, and prepared to return to McChord. Then a second engine on the same side overheated. It was also shut down. There was now no question about getting to McChord; Mussells prepared to make an emergency landing at Sandspit (Moresby Island).

To lighten the aircraft, Mussells dumped excess fuel. Some passengers mistook the misty gasoline trail for smoke, panicked and crowded to the back of the fuselage, as if that would have offered safety. This complicated the process of trimming the aircraft for landing. A crewman ordered everyone back to their seats, but the soldiers could not have been reassured as the North Star flew over a crashed USAF aircraft, its tail still sticking out of the water, during the final approach into Sandspit. Happily, Mussells landed safely.

On April 19, 1951, a North Star piloted by Flight Lieutenant J.A. Watt was on a route-training flight to an unfamiliar field—Ashiya—located between Osaka and Kobe, Japan. He was cleared by Ashiya tower to descend from 4,000 to 3,000 feet. At 3,400 feet the aircraft hit trees atop a hill that was not even

indicated on the airfield map. No one was injured but the aircraft sustained considerable damage to its nose, oil cooler and exterior radio aerials. The pitot head was also wiped out, and with it the airspeed indicator. The aircraft also lost the use of an engine.

Fortunately, the passengers included three of the most experienced North Star captains in the RCAF: Wing Cmdr. Mussells, Wing Cmdr. J.K. MacDonald, and Flying Officer Robert Edwards. After assessing the damage, Mussells ordered MacDonald and Edwards to complete the landing, which they did.

On the night of Dec. 27, 1953, Squadron Leader E.L. Hare was homeward bound from Japan in North Star 17516, bound for Shemya. The weather was bad and the ceiling minimal. Visibility was a half mile with a savage crosswind blowing at a 90-degree angle. The runway surface was covered with wet snow; braking conditions were poor. On the third landing

attempt, everything came together in the worst possible way. The North Star was blown off the runway into a gully. Everyone survived, but 17516 was a total "write-off"—the only RCAF aircraft lost in the course of Operation Hawk.

Canadian military policy with respect to honours and awards was very restrictive from 1946 onwards, but rules were relaxed during the Korean War. Personnel involved in Hawk were awarded one Officer of the Order of the British Empire (OBE), one Member of the Order of the British Empire (MBE), four Air Force Crosses, two Air Force Medals and 13 Queen's Commendations. Most of these were to aircrew personnel, but Sqdn. Ldr. W.H. Lord was granted an MBE for his work in establishing and supervising the maintenance detachments that serviced the North Stars wherever they alighted along the 11,000 mile route.

PNSAC

Calendar of Events

May 02, 2015

May 23, 2015

June 06, 2015

July 01, 2015

September 12, 2015

November 07, 2015

November 21, 2015

Members' Quarterly Meeting

Board of Directors' Meeting

Doors Open Ottawa

Canada Day

Board of Directors' Meeting

Board of Directors' Meeting

Annual General Meeting and Board of Directors' Meeting

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