



### THREE-STAR ATTRACTIONS

This Piasecki HUP-3 was donated to the Canadian Museum of Flight at last years annual PVI Aircraft Maintenance Symposium. The helicopter is seen in the company of a T-33 trainer and Grumman Tracker patrol aircraft of VU-33 Squadron at CFB Comox. All three aircraft types were flown by VU-33 from Patricia Bay in the early 1960's.

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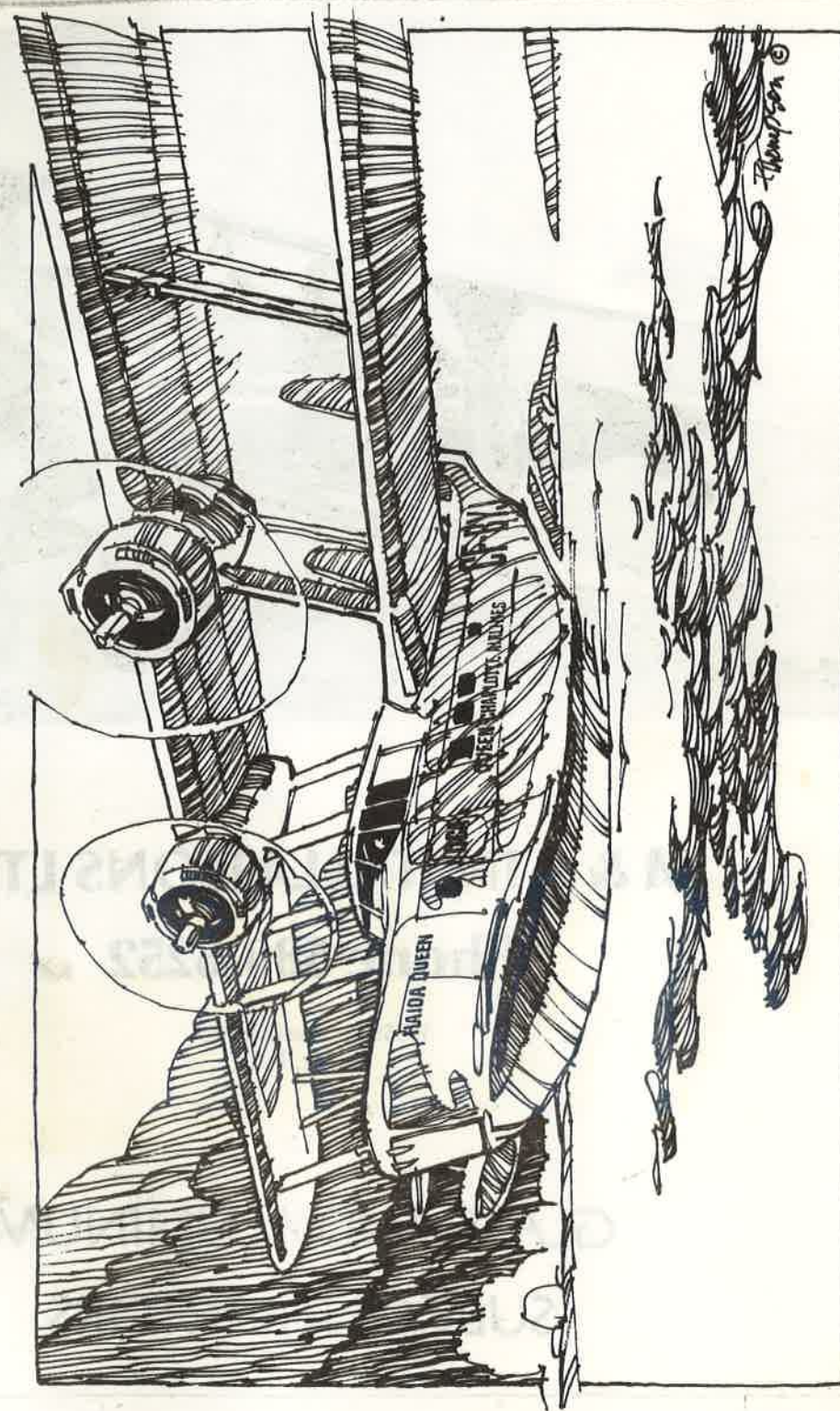
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# Museum Newsletter

February, 1984

CANADIAN MUSEUM OF FLIGHT AND TRANSPORTATION

No. 23





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# CMFT NEWSLETTER

No. 23

CANADIAN MUSEUM OF FLIGHT AND TRANSPORTATION

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## CONTENTS

<b>STRANRAER RESURRECTED</b> .....	4
<i>Bill Thompson barges it down the coast</i>	
<b>FLYING BOAT SALVAGE</b> .....	7
<i>Ed Zalesky tells it like it was</i>	
<b>WAY BACK WHEN</b> .....	11
<i>Guy Symonds, RFC, remembers</i>	
<b>WINGS, WHEELS AND WATER</b> .....	12
<i>Through the war years</i>	
<b>OUT OF THE PAST</b> .....	18
<i>RCAF Shark 518 comes home</i>	

### NOTICE OF MEETING

Canadian Museum of Flight and Transportation, Vancouver Island Branch, holds meetings on the last Wednesday of every month at 7:30 p.m., at the Bay Street Armouries. Please use the Field Street entrance. Anyone interested is welcome to attend.



COVER PHOTO: The Haida Queen (Stanraer BYJ), formerly of Queen Charlotte Airlines, is graphically shown at the moment of take-off. This pen and ink rendering by CMFT member Peter Thompson details the sleek lines of the once-proud flying boat, which crashed at Belize Inlet some 30 years ago, with the loss of two lives.



Contributions are welcomed as are comments and criticism. No payment can be made for manuscripts submitted for publication in the CMFT Newsletter. The editor reserves the right to make any editorial changes in manuscripts which he believes will improve the material without altering the intended meaning.

### CANADIAN MUSEUM OF FLIGHT AND TRANSPORTATION 1983/84 EXECUTIVE OFFICERS

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Bruce Duncan .....	Vice-President
Rose Zalesky .....	Secretary-Treasurer
Peter Knowles .....	(Acting) Vice-Chairman, Vancouver Island
Adele Hatch .....	Public Relations, Vancouver Island

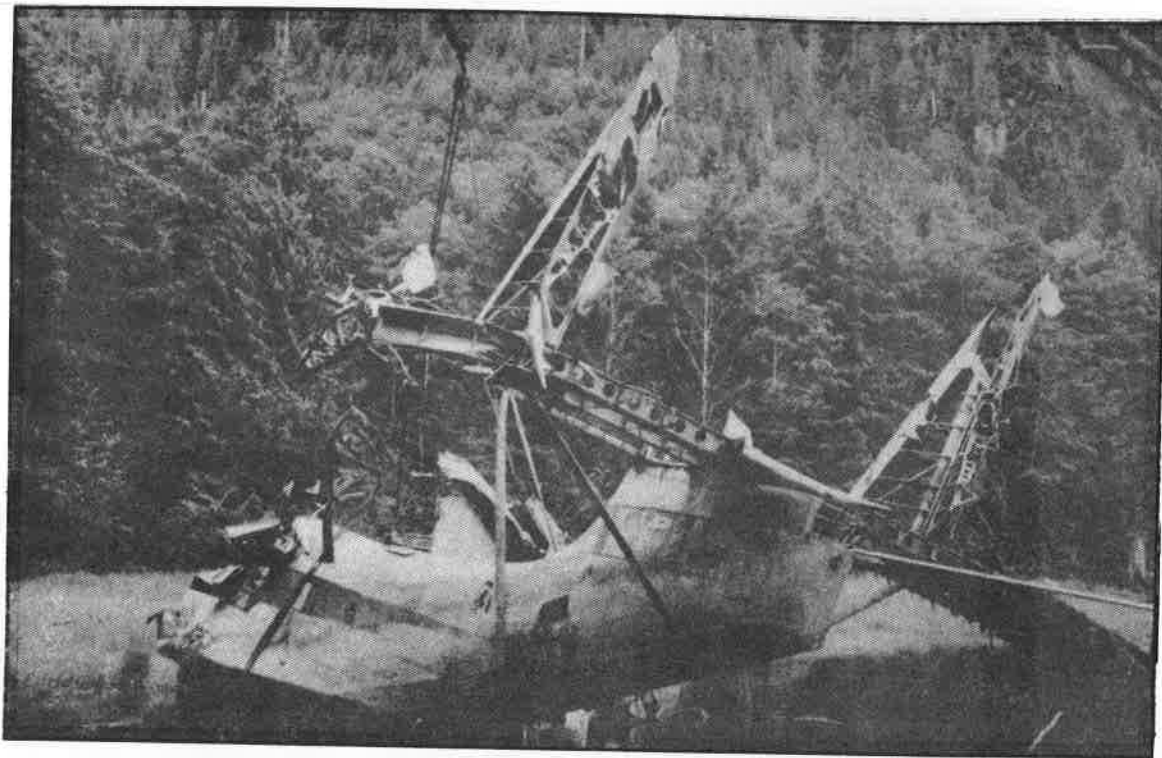
### COMMITTEE HEADS

Robert Kennedy .....	Newsletter
Wayne Manning .....	Recovery and Hauling
Gordon Dann .....	Special Events
Jerry Vernon .....	Research
Ken Swartz .....	Communications

### 1983/84 BOARD OF DIRECTORS

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The Canadian Museum of Flight and Transportation is a non-profit society dedicated to the preservation of aviation and transportation heritage. Charitable status allows for the issuance of tax-deductible receipts for donations of goods and money. It is governed by a board of 20 directors, divided 15 for the Lower Mainland area and 5 for the Vancouver Island area, elected annually. Elections are held in April.



STRANRAER coming out of the water at Belize Inlet, B.C.

## Rare Canadian-Built Stranraer Flying Boat Recovered in B.C.

By Jerry Vernon

A rare Supermarine Stranraer flying boat was recently retrieved from a remote location on the British Columbia coast by a six-member team from the Canadian Museum of Flight.

The aircraft is the last in Canada of 40 Stranraers built by Canadian Vickers in Montreal, between 1938 and 1941.

The aircraft had crashed on Christmas Eve, 1949, and the decision was made to salvage it because of its important role in West Coast aviation during WWII and the post-war period.

"The logistics of planning and organizing the recovery were very complex," said Captain Bill Thompson, Museum Vice-President and co-ordinator of the recovery. "Stranraer CF-BYJ (ex-RCAF 915) crashed at Belize Inlet, 250 miles north of

Vancouver, in 1949, and the only means of recovering her was by sea."

Several reconnaissance trips were made prior to the actual salvage voyage, and an underwater search was made for pieces of the 54-foot long, twin-engine biplane which were believed to be on the bottom of the inlet.

The museum used a 50-foot tugboat, the *Nanaimo Tillicum*, and a crane-equipped barge, and sailed 500 miles along the B.C. coast to complete the operation. The team left Pender Harbour, north of Vancouver, early one morning and took 23 hours, at 7 knots, to reach Belize Inlet.

The barge was moored alongside the aircraft at high tide, and the next morning it was a simple matter to lift the aircraft pieces aboard. After this was completed, the crew departed for Crocraft Is-

land, south of Alert Bay, where Northwest Industries-built Bellanca 31-55A Skyrocket bush-plane, CF-DOH, had crashed in September, 1948. The remains of this aircraft were manhandled and winched down a hillside to the shore. It was then lifted on board the 30x75-foot barge and placed beside the Stranraer.

Also recovered was the near-intact wreckage of a Cessna 180K, N2577K, which crashed near Vancouver Bay, Jervis Inlet, in 1982, while on some sort of mysterious "delivery mission" to Canada. The team then returned to Pender Harbour.

Several weeks later, Thompson and his son sailed down to Crescent Beach, south of Vancouver, where, after considerable problems with shifting tides, the load of aircraft was off-loaded at the museum's waterfront storage and restoration facility.

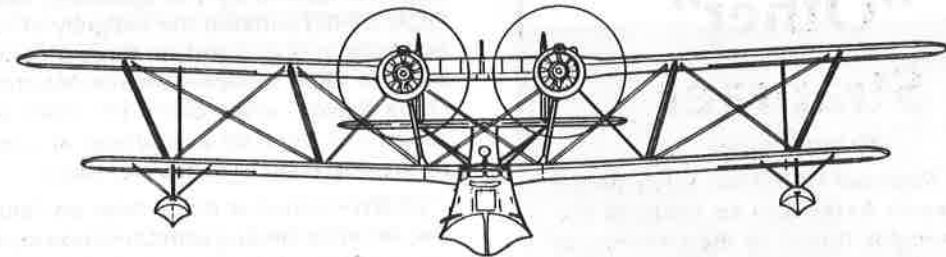
Eventual plans call for the restoration of the badly-damaged Stranraer fuselage. The Skyrocket will join two other partial airframes in the mu-

seum's collection, from which one complete aircraft will be rebuilt.

The entire recovery operation was completed with services and labour donated by museum members, and was financed through a generous donation from Tillicum Towing.

RCAF 915 (CF-BYJ) is the last Stranraer in Canada. The last intact Stranraer, CF-BXO (RCAF 920) was exported from Canada in 1970, despite considerable protest from the B.C. aviation community. It now sits in the RAF Museum in Hendon, near London, and carries its original RCAF colours.

The Canadian Museum of Flight and Transportation now requires parts, manuals and blueprints, in order to complete the restoration of the Stranraer and Skyrocket. The museum would also like to hear from anyone who worked on or flew Stranraer 915 (CF-BYJ) at any phase in its career. Their address is 13527 Crescent Road, Surrey, B.C., Canada, V4A 2W1, phone 604-531-2465.



## A Little Bit of History

By Jerry Vernon

The Stranraer was the last of a long line of biplane flying boats produced by Supermarine, and was a development of the 1925-vintage Southampton. In fact, the first prototype was initially called the Southampton V, when it was rolled down the slipways in mid-1935. The Stranraer was powered by a pair of Bristol Pegasus radial engines swinging, at various times, two-, three- and four-bladed propellers, some of wood and some of metal.

The "Strainer" (as it was called by some) entered RAF service in 1936, but only 17 aircraft were produced in England. The type was withdrawn from RAF service by mid-1940, being replaced by the Sunderland.

In Canada, a total of 40 Stranraers were produced under licence by Canadian Vickers, between 1938 and 1941, and was in first-line service on both coasts, operating with Nos. 4, 5, 6, 7, 9, 117 and 120 (BR) Squadrons, until the Canso came along in 1943. In general, on the West Coast, the Stranraer replaced the Vickers Vedette and Blackburn Shark in squadron service. In addition, many flying boat crews were trained on the Strannie with 3 OTU, Patricia Bay. The last RCAF Stranraer was Struck off Strength (SOS'd) in 1946.

Following RCAF service, and starting as early as 1944, most of the surviving Stranraers passed into civilian hands. The famous CF-BXO (RCAF 920) was bought by the Labrador Mining and Exploration Company, later passed on to Queen Char-

lotte Airlines, and is now displayed in the RAF Museum at Hendon. A further 21 aircraft were bought by Siple Aircraft, of which 13 were registered, as CF-BYA to CF-BYM, with the intention of using them in commercial passenger and freight service in the Caribbean and South America. Eight or nine found their way down to Tampa, Florida, before Siple was killed in an accident, and the operation came to a halt. The remaining four Stranraers (CF-BYI, CF-BYJ, CF-BYL and CF-BYM) were bought by Spilsbury and Hepburn (Queen Charlotte Airlines), and, along with CF-BXO, operated QCA's famous flying boat service up and down the B.C. Coast in the 1940s and 1950s.

This particular aircraft, CF-BYJ (RCAF 915)

## That "Other" Stranraer

By Jerry Vernon

Once Stranraer CF-BYJ was safely on Bill Thompson's barge and en route to the farm, thoughts turned to the transport of our other Stranraer remains—the rear fuselage, engines and props from CF-BYM, which had been plucked out of the bush in the summer of 1980, through the efforts of this writer and courtesy of Northern Mountain Helicopters. The remains were picked up out of the swamp at Sovereign Lake by Northern Mountain, and deposited by the nearest road, where one of our members trucked them out and stored them safely(?) on a farm that he owned near Quesnel. Unfortunately, our member then sold his farm, and the cretin that bought it, although he knew the aircraft remains belonged to CMFT, sold them as scrap metal to an unknown passing junk dealer. . . without warning us or telling us about it, and without even remembering who he sold it to! This unsettling fact was not discovered until thoughts were given to a long-postponed trip to pick the stuff up in 1983.

entered RCAF service on 27 Sep 39 at Ottawa, and served with 4(BR) Squadron (Jericho Beach) and 9(BR) Squadron (Bella Bella) from 1939 to 1943, when it then went into reserve at Vancouver. Only one accident occurred in RCAF use, on 5 Nov 43, while flying through Gunboat Passage (near Bella Bella) in low ceiling conditions. F/O Denis Denroche and the other 8 on board were uninjured, but the pilot was charged with low flying. Total RCAF flying time was 1821:20 hours, and it was sold to W. C. Siple on 24 Nov 44, although not removed from RCAF strength until 7 Feb 45.

The aircraft was resold to Morris Summit Gold Mines of Vancouver on 11 Sep 46, and finally went onto the Civil Register as CF-BYJ on 17 Sep 46, when it had passed into the hands of Queen Charlotte Airlines. In April, 1949, the cranky Pegasus engines were removed by QCA, and replaced by a pair of war surplus Wright Cyclones, a practice common to the surviving Strannies at that time. As related by Jim Spilsbury, founder of QCA, CF-BYJ suffered the indignity of having its hull bottom ripped out on three different occasions in QCA service—twice in Montreal's Lachine Rapids, while down for work at Siple's shops, and once on a deadhead at Geepeecee, on the west coast of Vancouver Island.

CF-BYJ crashed at Belize Inlet on Saturday, 24 Dec 49, while landing with Christmas mail and express at Oskar Johnson's camp. The pilot was W. J. (Bill) Peters, who now lives in Tsawwassen, and the co-pilot was the late Jack Steele, who was to die later in the bomb-sabotaged crash of a CPA DC-6. Flight Engineer S. W. Hubenig and two of the passengers were also rescued by Johnson, but passengers Ralph McBride and James Buckley were killed when the aircraft went to the bottom, in 200 feet of water. The five survivors suffered nothing more than shock and minor injuries from their dunking. According to Bill Peters, the aircraft seemed to be landing normally, but "stubbed its toe" and flipped over, with the nose and cockpit section breaking off. The flight crew came to their senses in the cold water, with the inverted hull nearby, and that sank within minutes. It is reported that the dead passengers were crushed by a loose refrigerator, part of the cargo, when it broke loose. The hull was raised in the spring of 1950 to recover the bodies, and cast aside onto the beach at Belize Inlet where it lay until recovered by the CMFT crew in 1983.

## STRANRAER RECOVERY Dedicated Team Members Salvage Classic Flying Boat

By Ed Zalesky

The salvaging of downed aircraft by CMFT members is not all peaches and cream as some people believe.

First you have to have dedicated members like Captain Bill Thompson of Pender Harbour, who have the expertise and equipment necessary to do the job, and are willing to withdraw it from revenue jobs in order to perform tasks for CMFT.

Then you have to line up family, neighbours, and friends as non-paid volunteer crew members. Days off and vacation time have to be arranged to everyone's satisfaction. Next, you hope and pray that the weather will co-operate.

Being at the end of the world, there are no Bental Centers, so everything necessary has to be thought of and taken with you, otherwise the project could fail due to lack of equipment.

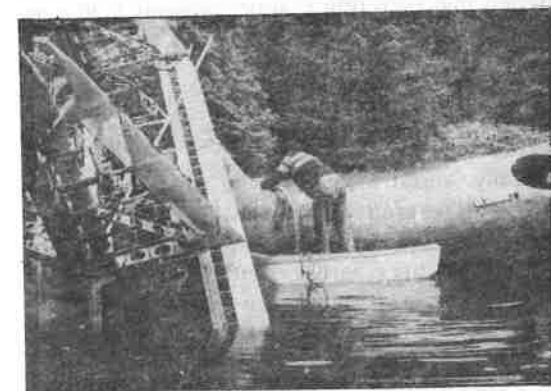
With everything planned well in advance and the equipment out of revenue for the least possible time, the crew is assembled and the tug and barge set out as per plan. A few hours out — and not as per plan — the engine on the "Tillicum" blows a piston, leaving the expedition dead in the water, so to speak. Garry Thompson comes to the rescue and tows the disabled flotilla back to Pender Harbour six hours later. However, it is no chewing gum repair or 5-minute job on the diesel engine. All plans now have gone haywire. Ninety percent of the crew have to decline the next departure, as they are committed to being back on time or be out of a job. This pattern sounds familiar to us.

Captain Bill and Wilma Thompson, Pat Thompson, George and Fern Wren and Marc Farley are left to take on the challenge and commitment. They leave again with a second smaller tug and the barge in tow. The weather holds smooth and relatively steady all the way up and across Queen Charlotte Sound — one of the worst bad-weather and rough water stretches en route to Alaska.

The head of Belize Inlet, where the Stranraer wreckage is located, does not have current hydrographic information, and, as a result, the going on the last part of the inlet, towards the site, is very slow with soundings being taken very often to avoid unnoticeable rocks and shallow bottom depths.

On arrival, a visual inspection from a small boat was made and the barge and tug positioned for the recovery job. Numerous pieces were scattered over the area as a result of visits by souvenir hunters and loggers. Imagine wreckage that is overgrown with mussels, oysters, and semi-attached to the bottom as a result of marine growth. In addition, with the tides going in and out twice a day for approximately 30 years, the corrosion and deterioration made the remaining pieces very fragile and brittle. Recovery was very slow and time consuming, and dirty work down in the water, slime, and murk.

With the Stranraer parts on board, the Thompson crew raised anchor and moved off towards the



CAPTAIN BILL THOMPSON readying the Stranraer for lift.

Bellanca crash site at Growler Cove. Now the weather changed, but fortunately just heavy rain and not heavy wind.

Pat Thompson and crew went ashore in the small boat, up over the snags and deadfall logs, located the burned-out wreckage, pried loose all chunks and pieces and winched the engine out over the logs and debris towards the shoreline and barge. Really tough, physical work in heavy, miserable rain.

Finally, The Bellanca "junkue" is on board and the crash site left neat, with the memorial cairn in place. Many slow hours later, the flotilla is back.

safely at Pender Harbour. The treasure is off-loaded and the barge is back in immediate service, with the crew returning to their normal day-to-day duties.

Captain Bill Thompson is very anxious to get the Stranraer from his place to the storage site as the barnacles, mussels, oysters etc. are starting to smell as they die and dry out.

Three weeks elapse before the parts are again loaded on the barge and en-route to the storage site in Crescent Beach, B.C., via the tug "Hyack". Fog was encountered all the way down to Point Roberts, Washington, and followed the tug across Boundary Bay, to the Burlington Northern Railway Bridge spanning the Nicomekl River. Prior arrangements were made to open the bridge and an estimated time of arrival given. Hot Dang! This will be a cinch! Hah! Captain Bill and Mike Thompson arrive and the bridge is closed. A radio call is made to this writer who drives to the bridge to find a note on the tender's shack door "gone to supper — back at 5:30 p.m."

It is now 6:15 p.m., as Bill calls again and is advised that high tide is approximately 8:30 p.m. and darkness at 9 p.m. The plan is to nestle up along the sandy bottom area of the dyke and unload the treasure on the high tide and back through the bridge by dark, as the Nicomekl River has no channel markers.

Finally, about 6:45 p.m., the tug's radio mast and barge are seen working slowly up the river, but periodically there is this hellish sounding bump! I look and the tug is aground and being run over by the barge, even though at slow speed. After about three rounds of this treatment, the tug is anchored in the channel according to my deep water instructions, which turned out to be anything but! Bill and Mike pushed the lot towards the landing site and prepare to off-load. The first thing off is the aft section of the Stranraer fuselage, and all of a sudden it's dark. It's now after 9 p.m. and the tide is falling, so it's overnight whether anyone likes it or not. A quick trip is made to the farm house to advise Wilma Thompson of the delay.

Back to the barge site, out to the tug with the small boat, and on with the mooring lights. It's blacker than the inside of a cow now. We can't see anything of Bill and Mike, other than hearing the outboard and seeing the odd beam of my brand new battery lantern, which I loaned to Bill (guaranteed to float).

It's getting foggy now, and around 11:30 p.m. so we decide to call a halt for the night. I can't see

anything and just hear the odd bump and thump like the barge hitting the tug.

Next morning, the crew is up at 6:30 a.m. and out to the dyke, where we can't see a thing for the fog. At around 7 a.m. the fog lifts somewhat and contact is made with Captain Thompson. He and his companions had gone to bed at approximately 11:30 p.m. after the small boat tipped over and everything went into the river — people, motor, lights.

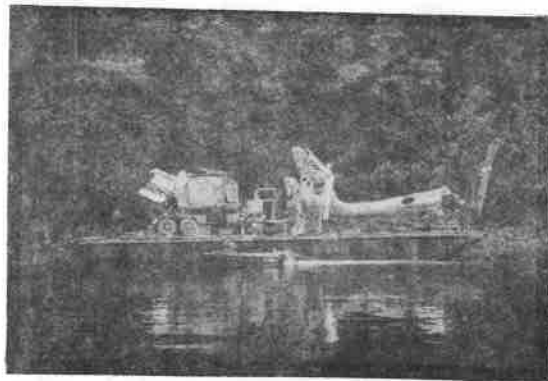
"Yes," said Bill, "the light floated very well down the river, shining in the fog."

They got the outboard dried out and running, and secured the barge to the tug, then went to bed. Some night!

Ron Stunden and Ross Gregory came by to help with the job. The Stranraer and Bellanca engines were off-loaded along with numerous smaller bits and pieces. The last remaining large chunk was the right hand wing, nacelles and center cabin section, all together in a very loose unmanageable piece.

Things went slower than expected during the day, due to the main hoist cable getting snarled and in a tangled mess on the drum. It was gingerly unsnarled many times. The plan was to turn the barge sideways against the dyke at high tide, position the crane so as to pick up the wing and assorted loose "goodies", swing them over the side and onto the top of the dyke, where the ground crew would move them later to a safer site. The tide came up but the barge was still aground.

The "Cat" was used to pull the stern of the barge around however, there remained about a 15 foot gap between the barge and the dyke. Time, water, and daylight were rapidly running out on all of us. The crane lifted and swung the wing section over the side, half on the dyke and half over the water. I



LOADED on the barge and ready to go.

## MICHAEL DUNCAN JOINS CMFT

Michael Duncan, well-known TV/radio producer and writer, with a 10-year association with the Vancouver Maritime Museum, has graciously consented to assume the responsibility of promoting The Canadian Museum of Flight and Transportation.

Given his long, previous experience in the promotional field, the directors feel that he will be a definite asset in making the goals of CMFT more widely known.

## Tours To Start

A sure sign of spring is the re-opening of the CMFT storage site to the public for weekly tours.

Starting March 17 and every weekend thereafter, the museum will be open from 11 a.m. to 3 p.m. for guided walk-arounds.

Tour guides are urgently needed and if you have a few hours to spare once a month or so, please call the office at 531-2465.

propped up the over-water portion with timbers, the barge floated free and Mike pushed it out toward the tug with the outboard. The anchor was hoisted onto the barge, towline hooked onto the tug, engine fired up, and Bill started down the river towards the swing bridge. Mike took Ron Stunden and myself ashore, then back to the disappearing tug and barge.

Rose Zalesky then high-tailed it to the bridge tender who had the bridge open. Bill had his equipment safely through before dark and into the proper channel enroute to Pender Harbour. It was another 15 hours steady towing without sleep before they were home.

This kind of dedication and effort has helped CMFT become successful, with unstinting believers and doers like Bill and Wilma Thompson, family and friends.

Attend the next general meeting,  
March 15, 8 p.m.  
13527 Crescent Road, Surrey

## Books in Review

By May 15 readers will be introduced to the finest book ever produced covering Canadian aviation history. *Sixty Years: The RCAF and CF Air Command 1924-1984* has been produced by Larry Milberry and his small team at CANAV Books in Toronto. *Sixty Years* follows the same format as the three previous CANAV best sellers: *The Avro CF-100*, *The Canadair North Star*, and *The De Havilland Canada Story*.

*Sixty Years* is even more lavish than the highly acclaimed North Star book. Its 400 pages tell the story of the RCAF from its beginnings in the early 1920's, through the quiet inter-war years, the Second World War, the post-war "Golden Years", and on through the Canadian Forces era to 1984.

The book is full of the kind of in-depth coverage that people have been waiting years to see. It contains numerous first hand accounts, and has been researched by some of the country's top military aviation historians. There are over 500 finely reproduced black and white, and colour photos of the quality standard in CANAV productions. As well, the book contains over 80 full page colour reproductions of aircraft from the Avro 504 to the Siskin, Typhoon, Sabre, Dakota, Hercules, Chinook and CF-18. There's simply never been a book quite like this one produced about the RCAF.

*Sixty Years* will be hard cover, 8½ x 11, and printed to the highest standards. It will retail at \$45.00 and can be ordered through the Museum's gift shop.

## ELECTIONS FOR DIRECTORS

Nominations are now being taken for the position of director and committee head for the coming year. The present term expires April 19.

If any member is interested in these positions, please contact Barry Jackson, at 669-0603.

## Lesson For Today

How many times has this happened to us now? How many aircraft have we accepted, paid good money for and so on—only to leave them sitting where they were, to be vandalized, scrapped, stolen from under our noses, and so on? Stranraer CF-BYM seems to be lost and gone forever—probably melted down into pots and pans by now. Who stole our Lincoln Sport from under our noses? How about the continued vandalism and theft of parts from our Expeditors at Salmon Arm and Abbotsford, our Vertol 44 at Arnprior, and Lord knows what else? If we had moved a little faster on the Barkeley-Grow at Peace River, Alberta, it would be here now, rather than in Calgary.

This writer, and the rest of the small core that do much of the work at the museum, are getting more than a little tired of arranging deals, securing aircraft and parts, sticking their necks out on recoveries, etc., only to have these efforts wasted because the other 800 members sit back and do nothing about getting these things hauled back to B.C., until there is nothing left worth hauling back. Please help!

## OUR FUTURE HOME?

### CANADIAN MUSEUM OF FLIGHT AND TRANSPORTATION

**Has been searching for a home for 5 years.**

An option has now been offered on Fort Langley Airport. This is an excellent location for the following reasons.

1. Already an existing airport
2. Waterfront facilities on the Fraser River for float planes
3. Trackage for railway and steam buffs.
4. 50 acres. Room to relocate and amalgamate all transportation museums . . .
5. Hanger storage and tie downs for those who wish to rent or lease.
6. Close proximity to two existing museums

A benefactor or group of benefactors who could come up with the sum of \$1,000,000 plus. Time is of the essence.

Monies to be paid in over a period of 5 to 10 years.

**This is a chance of a lifetime!**

Please help out your museum by letting as many people as you can know about our endeavors.

All donations are TAX DEDUCTIBLE and receipts will be issued.

WAY BACK WHEN . . .

## Some Memories Are Forever

**Guy Symonds, 86, is one of our more articulate senior citizens, now residing in Gibsons, B.C. He was an active fighter pilot in WWI, and has graciously consented to put down on paper one of his more breathtaking experiences.**

**By Guy Symonds**

Here they are at last: puffs of black smoke a thousand feet below in the gaps between the ragged cloud masses. Any second now the Huns will be showing up in those gaps, following the smoke trail set up by their own "archie". Puts a stop to this beastly gulping that always starts in my throat until we get over the lines and the first black burst shows up. Sort of settles me down and gets rid of that "wind-up" feeling.

Funny they should be there. The whole thing is funny. As far as I know I was sitting comfortably in a pretty little Cessna being treated to some beautiful flying by my friend up in front and thinking of the last time I watched the gentle rise and fall of other kites flying in formation. The mountains of Washington were sharp against a clear blue sky and a hundred lovely islands in the Gulf of Georgia looked like the pictures in a travel folder.

The wake of a Vancouver Island ferry was the whitest thing you ever saw in the spring sunshine that blessed the world.

Must have been dreaming. Those two striped Lewis guns on the Scarfe Ring are real enough. So is the fact that every second breath I draw must be a deep, deep one to make up for the thin air at this darned cold 17,300 feet altitude. Pretty stupid to get the Gulf of Georgia mixed up with the Dix-mude floods!

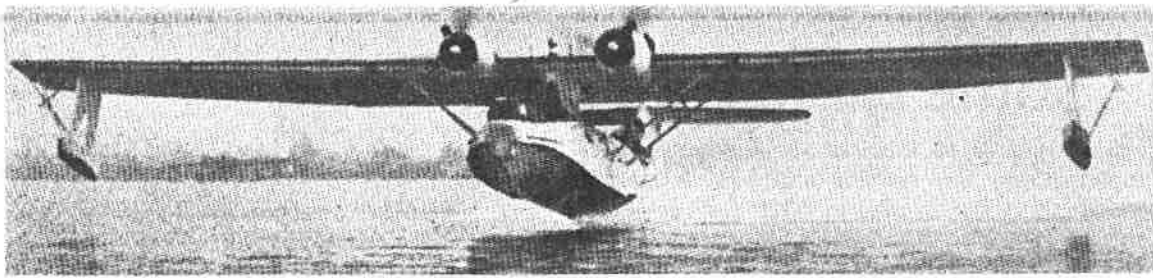
So keep watching everywhere, all 360 degrees round about and up and down; that's how you stay alive in this business. Stand up in the cockpit. Safety belts aren't for the chap in the back seat of a fighter-bomber, two-seater. Only wish the lad up in front wasn't quite so new to the job. Makes sense though, I guess, to put the old hand with the new chum, and God knows, I've got the experience. That's why I'm here. Only way to teach them, but it's darn hard on the nerves. How the blazes do I know what he'll do? Now, George Thom and I were like one person. Wish we could

have stayed together. Wish those triplanes would show up. Those single-seat fighters are all the same. If they can't see Huns they have to go looking for them and we get left to look after ourselves—if we can.

It's a safe bet that the Huns will come up from underneath. Those "archie" bursts would have been above or at least level if his single-seaters had been upstairs. And here they are! Albatros 1's and 2's, I think. Too many to count, but there are five under my tail and five more making for Sam on the other side of the formation. Sam's guns are winking like mad and the Hun tracer is streaking past me. Sam, as always, is doing a great job, making the Albatros kick rudder and throwing their aim off. Now I've got a good target under Sam's tail. We've been flying together a long time. Trained together. So far, so good. This must be a new squadron. They don't fight as though they know their job. Now "archie" is getting into the act again, raised his sights and filling the sky just over our heads. At least I don't have to swing the guns around. Even standing up it's murder to push the two Lewis guns against the slipstream. God, the sky's full of Huns. Where the hell are those triplanes? Neither Sam or I have been hit yet as far as I know, but God knows what is happening to the rest of the 14 DH4s up ahead. No time to look but I'd say we are outnumbered by at least five to one.

God! What happened? I almost got thrown out of the kite—had to drop the guns and grab the Scarfe Ring to save myself. Has that chap in front bought it? We're in a nearly vertical dive and the pain behind my ears from the violent pressure is like a knife blade—makes me scream.

We're too fast for the Hun to follow. The DH4 can outdive the Albatros. We must have been hit somewhere. How long can the wings stand it? It's a good strong aeroplane, but were off the clock. He must be dead or knocked out. Down to 5,000 feet and I must take over. Thank God for dual control. The first kite I ever flew had it. Slam the throttles closed, ease the stick back—gently, gently. Both hands—it works—and taken 4,000 feet to do it. We're out of the dive but God knows where we are except that we are on the wrong



## WINGS, WHEELS AND WATER

# Through The War Years

In October's Newsletter, CMFT member Loch Madill related his early years in aviation up to WWII. In 1942, he was hired by the Boeing company as part of the testing crew on the Consolidated PBY flying boats. In this issue, he writes about his experiences as a test pilot.

By Loch Madill

Boeing Aircraft of Canada was well into production of the Consolidated PBY flying boats (Catalinas) at the new plant at the Vancouver Airport when I joined the staff as test pilot in November, 1942.

They had already turned out 5 PB5A Amphibians by that time and my first flight started with No. 9754. The contract with the RCAF was for 55 Cansos. These were the Catalinas with tricycle, retractable landing gear for use on both coasts of

Canada as patrol aircraft. They were always called Cansos and were a very rugged, dependable aircraft, forgiving and nice to fly.

We operated mostly from the Fraser River, but flights were also done from the airport.

Flight personnel at that time consisted of Pat Howard as chief pilot, Gord Hollingsworth and myself as pilots, Norm Simmons and Bill Potter as engineers and Noel Biles as radio technician. A short time later Dan Driscoll and Eric Larsen joined the Flight Department as pilots and Bill Smith and Earl Malley as flight engineers. Shortly after this Norm Simmons left for the States and Mac Steer took his place.

I teamed up with Dan Driscoll and Bill Potter and we stayed as a crew for most of the time. Gord Hollingsworth, Eric Larsen and Bill Smith formed the other crew, but we sometimes switch-

tap running somewhere—my God! Petrol! No, it's blood! My blood, thank God, splashing on the top of the fuselage that I'm lying across. . .

Now what's happened? I'm in a car, I'm sure, but I'm wearing flying gear. Something's happened. Someone is sitting beside me and keeps putting something in front of my face. Good God! He's trying to find out if I'm breathing. Silly idiot! There's nothing wrong with me. I'm just tired, that's all, just very, very tired. . .

"SWK calling JBS, we'll land in formation, number one on the left, two on right, three on left, four on right, OK?"

Beautiful Patricia Bay is there all right. Tower gives us the runway and the wind, and the little Cessna slides smoothly in as 60 years of healing time move back into place.

ed around, according to the job to be done, sickness, etc.

Pat Howard kept his hand in and periodically tested an AC—glad to get away from the paper war—and I crewed with him on an unusual flight to test the strength of the bottom of the aircraft and test the fuel tanks for leaks on hard landings. Aircraft PB2B1 No. 98, was chosen and on June 24, 1944, we took off with minimum crew (3) for the White Rock Bay area because of the shallow water and in case the aircraft sank, it would be salvageable.

The procedure was to fly the Canso into the water as a hard pancake landing, bounce into the air and hit again, bounce and hit a third time as hard as possible, and then land and check for leaks in the bottom and fuel tanks.

The test was performed once more, then we headed for the river, picked up some ground crew and the aircraft thoroughly checked again, and leaks marked or noted.

There were a few popped rivets and dented plates, but very few leaks after a rough test like that. It was amazing that the Canso could stand such violent treatment. Having seen movies of rough water landings by PB5s, I could see why they were built so rugged.

When production really got going, it was quite common to see the hangar doors open and a new PB5 rolled out almost every day. It was a few days before the aircraft was ready to fly. The pre-flight crews had lots of work to do, checking engines, controls, hydraulics, modifications, etc., etc.

Harold August was in charge of the pre-flight department, which included ground handling, launching and beaching, as well as preparation for flight, and then repair or adjustment of snags after flight. The pre-flight crews did a great job.

On one of the Cansos, we snagged a nose wheel shimmy on the last part of a take-off run from the airport, which was violent enough that the nose wheel doors would not close and seal because the oleo leg struck them on each side and dented them. A water landing was not advisable, so we had to land back on the runway.

There had been quite a heavy snowfall the past few days. The runways were cleared but the snow was piled up 5 to 6 feet on each side, which proved to be a big help when we landed.

On landing the Canso, the nose wheel was held off the ground as long as possible, but as the aircraft slowed down, and the nose wheel made contact, it started to shimmy and increased in vio-

lence as the weight came on it. The plane shook so hard that the instrument panel was just a blur and the control wheels banged against each side of the cockpit. Using the brakes would only aggravate the shimmy, so the next best thing was to head for the snowbank. That's a great way to stop an aircraft quickly without doing much damage. The snow exploded like a bomb!

While waiting for a tow back to the hangar, I measured the skid marks of the nose wheel on the runway. They measured 6 feet from crest to crest.

A malfunctioning shimmy damper was the culprit. The plane required an extensive check after that episode.

By May, 1943, the Catalinas' JX series for the US Navy were beginning to roll off the line. These had no landing gear and we had to use beaching gear to get in and out of the water. Extra work for the ground crews because there was lots of flying.

It was a common thing to test fly four aircraft a day for either initial flight, shakedown or check flight, and twice in my log book I recorded five different aircraft in one day. These were rather short days in March and April so we kept pretty busy.

We had one fire while airborne when testing the heaters at high altitude. It seems the flame in the furnace, which was under the navigator's table, blew out, the furnace filled with raw fuel (gasoline) and then ignited again. There was no explosion, just a whoomp and the aircraft was filled with smoke. Not knowing what to expect, we radioed the control tower a May Day and then circled the airport high enough for a bailout if necessary. Eventually, it burned itself out and we landed okay. The plane was burned on the port side and a lot of repairs were required to equipment around the navigator's table.

Not much fun trying to fly the aircraft with your head way out the window and no goggles.

On August 18, 1944, we were required to do max weight dive tests and speed runs on JX316. The aircraft was loaded with bags of shot distributed over the floor and bilges, and two 2000-lb. torpedoes slung under the wings, making a total gross weight of over 17 tons.

The test required a climb to approximately 7,000 feet and a dive speed of 150 knots plus, then a positive 3.5G pull-out, then over the top at a negative 1G. This procedure was to test the release mechanism of the torpedoes, and it was a

side of the lines because people are shooting at us.

First, make sure I've got control. Shake the stick a little—he shakes back and turns half round. OK, he's got it—that's air discipline. Hope he knows which way to go; doesn't know the lines like I do. If he doesn't turn north, I'll pass him a note. He's OK, north and then west and there's Petit Synthe, the aerodrome we left—how many years ago? We're turning and there is something wrong. I can feel the wind on my left cheek. . . somethings wrong. . . Hang on! Hang on! Hang on. . .

Everything's quiet, very quiet, except for the screaming I can hear. There's a little black head miles away below and it is screaming, screaming, waving back and forth and screaming. There's a

good check of the wings. If they stayed on, it was a successful flight. The same test was completed on JX586 on November 4 and 6, 1944, but with 4 500-lb. bombs or 2 1000-lb. bombs. A rough calculation of wing-tip bend upwards at the pull-out of 3.5G was approximately 3 feet.

The speed runs were done at sea level and high altitude, full power and level flight to check fuel consumption, engine performance and control of the aircraft in general.

We had one shattering fright when returning to the river after a routine check flight. We were landing with a light tail wind when we disturbed a flight of ducks on the river. They took off downwind, then abruptly turned back into the wind and right into us. A few were roasted in the engines, some chopped up by the props and one small one struck the top left corner of the port windshield and shattered it, then bounced off the engineer's pylon under the wing, smashed a hole the size of a football in the port gun blister, and ended up in the Vee radio antenna on the tail fin, dangling around like some wet underwear on the

clothesline. It is amazing how so much damage can be caused by such a small bird.

Most of the test flights were routine, but sometimes a little excitement occurs, like the time we took off from the river and at take-off speed we encountered a severe right wing low condition. Adjusting the aileron trim tab to counteract this condition only aggravated the situation and it took both of us to maintain reasonably level flight. All this was at about 300 feet, and by this time we realized that the trim tabs were crossed. By adjusting for full left wing low, the aircraft levelled off and we carried on, made a quick circuit and came back in. Needless to say the snag sheet had some heavy writing on it.

A twisted wing was discovered because the jigs were out. It was a coincidence that this, coupled with the crossed control tabs, nearly put us in the drink.

After this, more strict ground checks were done. I don't know what was done to correct the bad right wing low condition, but it did improve and the AID did accept the aircraft. They needed them badly.



THE TEST CREW, (l. to r.) Loch Madiill, Dan Driscoll, Pat Howard, Gord Hollingsworth and Eric Larsen. Photo by Boeing Aircraft of Canada.

I have a copy of *The Sky Beyond*, by Sir Gordon Taylor of Australia, who was responsible for locating airbases all over the South Pacific, and elsewhere in the world, and a great number of his flights were in JX275, which is the Catalina mentioned, and test flown July 5, 1943. I highly recommend this book. It is most interesting.

A small flight office was built for us on the dyke, next to the launching ramp on the river. Pat Howard had an office, there was a crew room and Val Gardner was the flight secretary. Later a radio room was finished, complete with ground station, and Nan Walker took over the office duties and handled the base radio very efficiently.

The downstairs was turned into an office for the ferry crews of Consolidated Vultee that took delivery of the Catalinas for the US Navy. It was called Convair, and Beatrice Gelling was in charge of the piles of paper work, custom clearances, manifests, schedules, routes, etc. She did a great job.

One of my jobs was the walk around and climb-over preflight checks. I used to climb onto the wing, walk out to the tips and jump up and down to flex the wings. If a rattle was heard, it was usually a bucking bar that had been left in the wing. On one occasion, I heard a dull thud, and a piece of 2x6 planking was discovered. I don't think it was removed as it wouldn't cause any trouble and would be hard to get at.

Mechanically, all the aircraft did not cause much trouble, except for the odd pitch control for the props with a runaway engine, auto pilots or sticking retractable landing gear. Most of the time adjustments were all that were required. Major snags were minimal, considering the number of aircraft built. Our crew test flew 357 new PBs and made some 607 flights. The other crew made a similar number of tests, all this in about two years. Quite a bit of flying.

In the winter of 1945, we had completed all the

flight tests of one aircraft, and were taxiing around on the river while the crew checked for leaks. Mac Steer, the engineer on this trip, said he had a very important, urgent job to do. The aircraft was not fitted with the potty as yet, so Mac decided to use the rear hatch under the tail. Just at the crucial moment, I ran afoul of a sandbar and had to pour on the power to keep from getting stranded. The tail went down in the water, I heard a loud yell and turned around in time to see Mac coming through the rear bulkhead door on a wall of water, his pants ballooned full of water like a parachute, and that water was cold! It took half an hour to pump the bilges before we could go up the ramp. I don't think he ever forgave me for that!

The last PBY our crew flew for Boeing was JZ840 on February 20, 1945.

Pat Howard and Eric Larsen stayed on to finish up the last test flights. Gord Hollingsworth, I believe, went back to Ontario, Dan Driscoll went to Imperial Oil, flying the pipeline, and I went back to Turner Boat Works to build wooden lifeboats. They were swamped with orders to replace craft damaged or lost through enemy action.

My term at Boeing Aircraft was one of the most exciting and interesting periods of my life and I enjoyed every minute of it.

## We Repeat. . .

you can be a part of the effort to insure that our priceless relics are preserved and properly cared for through future generations if you include in your will a bequest to the Canadian Museum of Flight and Transportation. You may bequeath cash, securities and real or personal property to the permanent Endowment Fund where the income from your memorial will continue helping to support the museum. Or you may choose a special purpose such as constructing buildings, acquiring important relics, the reference library, or renovation or restoration of an exhibit.

You will find that a living trust will secure your wishes while providing income for you or your designate for the rest of your lives.

Think of the Canadian Museum of Flight and Transportation as you look to the future.

## MEMBERSHIP RENEWALS

Please check your address label, the date on the upper right hand corner is the date your membership expires. Send in your \$15 annual renewal today. CMFT needs your support. Thanks to all of you who have already renewed your memberships.

## MEMBER REQUIRES

CMFT member Ian Morrison needs a copy of "The RCAF Overseas—The Sixth Year" (Oxford University Press, 1946) to complete his set. Call 987-3004 if you can help.

# Teamwork the Key to Test Flying

By Loch Madill

Test flying requires teamwork of both the flight crew and ground crew. The first or initial flight is crucial and this is where co-ordination is essential for the many tests and trials required of a new aircraft and the immediate detection of any snags.

Every day, every week, including Sundays and holidays, the crews are on call for whatever test flight is required.

The flight crew consists of pilot, co-pilot, flight engineer and radio technician, assigned to each aircraft. There are two basic crews and they test every alternate plane as they are ready for flight.

When the L14 log book and clearance sheets are signed by the Aircraft Inspections Department (AID), the aircraft is turned over to one of the flight test crews. The pilot and engineer sign the acceptance sheet for the flight department and the plane is now ready for flight testing.

Rigorous standards have been established and must be carried out explicitly.

Flight crews are equipped with winter clothing (mukluks, etc.) for cold weather, Mae Wests, clip-on parachutes and radio equipment. Snag and performance sheets are required as they board the aircraft for the flight tests. The weather has been checked and bombing and anti-aircraft ranges noted for the day so we can stay clear.

The aircraft engines are started and run up. Radio and cockpit checks completed, controls worked, hatches closed and we are ready for launching.

Permission is obtained from the control tower to enter the river, the plane launched, wing floats dropped, beaching gear removed and we taxi to take-off position. The engineer gives his all clear, permission for take-off received from the control tower and we are ready to go.

The aircraft is swung into the wind, the throttle opened to required boost pressure and RPMs, the engines roar and the acceleration is terrific. After a short run, with spray flying, the aircraft rises onto the step, gathers more speed, and at about 60 knots it breaks loose and 15 tons of PBV takes to the air for the first time. That moment is always a thrill.

Now I know now a duck feels when he takes off from some quiet pond,



LOCH MADILL—Another day, another test flight.

From now on it is a matter of careful checking and this is where teamwork is essential. All the crew must co-operate in their duties to complete a satisfactory test flight.

The aircraft is levelled off at about 300 feet while a quick check of controls is done and then put in climb position, power reduced, as we climb to 3,000 feet to carry out the required tests. Abnormal power is avoided until the engines have about 2 hours time except for take-off.

The pilots take turns at the controls, noting any off-conditions such as nose- or tail-heavy, stiffness, vibrations, etc.

While the engineer and radio man are doing their various individual checks, the pilots are checking gyros, turn indicators, air speed, etc. Turn indicators are checked within a five-second tolerance for 180 degree turns.

Variations are permitted, but the aim of the crew is to get everything correct, not just within tolerance.

The autopilot is given a thorough check for

smooth and accurate operation and any errors noted. Discrepancies in all departments are noted on the snag sheet for further correction on the ground before the next flight.

After the initial flight, which may take about an hour, we land on the river and a good check of the hull for leaks is done. We pick up a couple of technicians who can make any inflight adjustments to electrical components, autopilot, etc.

On the next flight, we climb to 7,000 feet to check de-icers, heaters and carry out checks of various power settings, fuel consumption, temperatures, etc., to the engineer's satisfaction.

We then descend to sea level, levelling off at various altitudes on the way down to check single engine performance on both the engines.

When we reach sea level, usually out over open water, speed runs are done at full power and flight characteristics and performance noted.

Sea level speed runs are carried out at about 10 or 20 feet altitude. All the aircraft registered 155 knots right on except one which registered 160 knots. Sure enough, the instruments were out.

I always did the speed runs because I had a

## Yes, We Know!!

New member Larry Milberry picked us up on our 'Did You Know?' item in the October Newsletter. The first manned balloon flight in Canada was **not** on July 31, 1879, as somebody on our editorial staff claimed. It was, in fact, much earlier, on August 10, 1840, when Louis Anselm Lauriet, of Boston, ascended from Barrack Square, Saint John, New Brunswick, in his *Star of the East* balloon, and travelled 21 miles to a landing outside the city.

In fact, the CAHS' new chronology book, *125 Years of Canadian Aeronautics* records some 6 pages of Canadian balloon flights between 1840 and the unsuccessful powered (hand-cranked) flight attempt by the *Canada* in July of 1879. Just wanted to see if anybody was reading the stuff, fellows. . .

For this and 300 more pages of dates, events and photos, get this new Canadian book from the museum bookstore, as well as Larry's first book, *Aviation in Canada*, which devotes most of the opening page to a more detailed story of Lauriet's flight.

good sense of feel of change in direction and motion, especially at high speed close to the water. Driving high speed boats and limited hydroplanes was good training for this operation and proved essential in maintaining an exact level above the water for accurate readings (simulated torpedo run).

At the completion of the run, with the engineer finished his recordings, I would holler "Hang On!", haul back on the wheel and stand the aircraft on its tail and do a full-power steep climb until just above stall speed, usually about 3,000 feet. It was just a little diversion because this was usually the last test procedure for the PBV. Any observers or technicians on board got a kick out of that. If all goes well, slow time may be flown to use up the required 4 hours time, but in most cases it takes about that amount of time to adequately check out a PBV.

There are some cases where 4 or 5 flights may be required to pass an aircraft to our satisfaction.

The clearance papers are signed and the aircraft turned over to the RCAF or US Navy acceptance crews for ferry to wherever needed for the war effort, and we prepare to fly another great PBV built by Boeing Aircraft of Canada.

## Expropriation Reading

Surrey Council has given third reading to an expropriation order pertaining to the Crescent Beach CMFT storage site.

Some time in the future, probably within the next two months, council will hold meetings with Rose and Ed Zalesky to discuss land value and tenure.

Further details will be made available to members as they become known.

## Policy

Every letter, newsletter or other communication throughout the year contains a return envelope or other form of solicitation. We urge you to use these forms to recruit new members and to make memorial, tribute, anniversary or other additional contributions. Remember, in order to help build and maintain the Museum, and to acquire outstanding exhibits, we will remind you of the need for funds in every mailing.



Shark No. 514 at Sea Island in late July, early August 1939. This first Vancouver-built aircraft was towed to Sea Island by road for wheel and altitude trials. — Photo by Al Eutis

## OUT OF THE PAST Blackburn Shark Recovered

by Kenneth Swartz

*Flying Officer Barney McLeod taxied Blackburn Shark, RCAF No. 518, out of Seal Cove on the morning of January 4, 1942, ready to begin another patrol of the northern British Columbia coast. It was less than a month after the Japanese attack on Pearl Harbor, and these missions had taken a serious character. The seaplane swung into the wind and immediately the powerful Bristol Pegasus roared into life, floats sending up spray as the torpedo-bomber accelerated across the water. Airborne, the silver aircraft banked away and soon disappeared against the dark clouds to the north... Forty-one years later, RCAF No. 518 returned to base...*

The frequent comings and goings of seaplanes and flying boats was interrupted at Seal Cove, B.C., last year by the return of an unusual wartime veteran. As commercial de Havilland Beavers and Otters were loading passengers, they were joined on the tarmac by a 1939 Blackburn Shark biplane, arriving by helicopter from its wartime crash site.

The recovery of this aircraft was undertaken by the Museum with considerable excitement and

anticipation. Not only was Shark No. 518 built in Vancouver by Boeing Aircraft of Canada, but it is also believed to be the last surviving British-designed Shark.

Two trips to Prince Rupert were made to recover the aircraft. The first, last May, succeeded in recovering most of the aircraft. A second trip was required to salvage the engine and forward fuselage. These sat ten feet beneath a muddy, water-filled marsh.

The location of Shark No. 518 was well known to the museum executive for several years. A photo of the wreck appeared several years ago in Carl Vincent's book *The Blackburn Shark*. The aircraft had crashed in a small forest clearing near Georgetown Mills, north of Prince Rupert, and was a well-known landmark to pilots who fly the North Coast.

The aircraft sat inverted where it fell on the Port Simpson Indian Reservation. Discussions with the band leadership resulted in formal permission to recover the aircraft. This was followed by steps to secure the necessary equipment to undertake the retrieval.

Recovery co-ordinator, Jerry Vernon, was fortunate to gain the support of Alf Stringer, President of Vancouver Island Helicopters. VIH agreed to make several of their Seal Cove-based helicopters available to the museum. Helicopters were considered the only efficient means of retrieving the Shark,



Fred Gardham and John De Visser next to the rear fuselage of the Shark. The No. 518 is clearly visible.

which sat one quarter mile from the ocean, and many miles from the nearest road.

In case VIH got too busy with work, or the weather closed in, Jerry also received the assurance of the Canadian Coast Guard that their Sikorsky S-61N at Seal Cove would be available, if necessary.

Helicopters in place, attention turned to gathering a recovery crew together. Museum members Jim Mufford, John De Visser and Monty Montezuma volunteered, as did Ron Prudhomme and Fred Gardham. Ron took a leave-of-absence from the Tiger Moth restoration project, and Fred came out of retirement to contribute his expert knowledge of Blackburn Sharks.

Fred worked as a journeyman fitter with Boeing for the entire Shark contract. His memories of the Shark production line at Boeing's factory on West Georgia Street did much to add to the nostalgia of the recovery trip.

Boeing made 17 Sharks, building them on jigs constructed from blueprints supplied by Blackburn. The completed fuselages, wings and floats were all trucked to RCAF Jericho Beach, on English Bay, for final assembly. Boeing took over one of the RCAF hangers and maintained a work force at Jericho, at the time home for several RCAF aircraft, including the Vickers Vancouver flying boat.

The first Shark, No. 514, made its maiden flight off English Bay on 21 July, 1939, with William James Holland, of Ginger Coote Airways, at the controls. For this flight and others, Fred and other members of the flight test team were obliged to start the Bristol Pegasus by hand, pulling on a rope attached to one of the propeller blades! It was only later that shells arrived from England for the Kaufman starter.

All the Sharks made their first flights on floats, including No. 518. Fred, however, had the 'pleasure' of helping take No. 514 to Sea Island for testing on wheels.

Shark No. 514 was changed over to wheels at Jericho in late July, 1939, and was then towed along Southwest Marine Drive with its tail on the back of a flat bed truck. The principal delays along the way were many low telephone wires, and the need to navigate the 35 foot Shark across the old Marpole Bridge. Altitude and weight tests, with full armament, were flown at Sea Island before the aircraft returned to Jericho by the same adventuresome route.

On Saturday, May 21, 1983, the five man team left the lower mainland in two pickup trucks, bound for Prince Rupert, 1000 miles away. They arrived at Prince George at 1 a.m. Sunday, over-

nighting in a trailer camp. The next morning they departed early and reached Prince Rupert by dinner time. A call to Ken Norie confirmed an early departure by helicopter the next morning.

The companies at Seal Cove were most helpful, permitting Jim to set up his camper as the Museum's 'kitchen', 'office' and 'motel'. Fred and Jim slept in the truck while John and Ron set up a tent, a wise economic move until it rained the last night. Monty took shelter in a motel, as sleeping space was scarce.

It took two Jet Ranger loads Monday to deposit the crew at the crash site, ten minutes flying time north of Prince Rupert. The weather was warm, but



John De Visser and Ron Prudhomme digging in the Crash hole.

in Prince Rupert one learns to take no chances: along with the equipment and tools came a tent, stove and extra clothing.

The Shark lay in a swampy clearing, surrounded by forest, very much as it was found on January 4, 1942. No. 518 was returning to Seal Cove when the rudder was struck by the floats of a second aircraft. The gunner managed to parachute to safety before the Shark crashed inverted in the clearing, the pilot and observer dying on impact.

Comparing the wreck to an official photograph taken following the crash, all that appeared missing was one water rudder and two operating cylinders off the rudder on the second float. The fuselage was broken in about three pieces and the floats lay

on and around the aircraft.

The first day was spent moving major pieces away from the crash site, so that the crash hole was clear and digging could begin. Fred pulled the latchpin for the wings and these were also dragged away. The ground was wet and the mud came as high as the knees.

Using a metal rod, it appeared that the Pegasus was about ten feet beneath the ground, still attached to the forward fuselage. By afternoon the team was using a Come-a-Long to pull pieces of the fuselage from the mud.

By the time the crew returned to Seal Cove, interest in the recovery was already growing among the employees of the various airlines and firms based there. Seal Cove serves as a major base for Trans Provincial Airlines, with de Havilland Beavers and Otters and Grumman Geese. North Coast Air Service also operates Beavers and a pair of Grumman Mallards.

By next morning VIH had all four helicopters busy, so the Coast Guard volunteered to take the team back to the Shark. Sikorsky S-61N is the only one of its kind used by the Canadian Coast Guard. The roomy cabin of the S-61N provided plenty of room for equipment needed in the next phase of the recovery operation.

The first task, once at the Shark, was to cut a few small trees and construct a tripod over the crash hole. Four-foot square platforms were made of logs and on these the tripod legs were placed. Meanwhile, another half of the team continued to dig for the forward fuselage. Pieces of the wooden propeller were easily identified and small pools of aluminum indicated that the two fuel tanks had exploded on impact. The fire damage was limited, suggesting perhaps, that the aircraft was low on fuel when it crashed.

The tripod was rigged with a Come-a-Long, a hook was attached to one of the float fittings and a chain was wrapped around the forward fuselage. One of the pumps flown in on the S-61N was started, as the hole kept filling with water. But, even with a 4 ton capacity, the tripod failed to lift the fuselage; the legs and platforms sunk into the mud and the engine and fuselage remained firmly stuck. Some hand digging however turned up a Very pistol, the Kaufman starter and the oil cooler, still in good shape and leaking green oil.

The S-61N returned just after 7:30 in the evening to pick up the crew. By now all the extra shovels, Come-a-Longs and buckets flown in that day had been put to good use, but with no success.

Wednesday, Vancouver Island indicated that they would be available to fly the wreck out, between work for various customers. Jim, John and Ron flew out in the morning to load cargo nets and Fred and Monty moved over to the Coast Guard base to unload the nets as they arrived.

The wreck was lifted from the crash site in several helicopter sling loads. The first load consisted of the wings and control surfaces in a large net, and incidental pieces in a smaller net. This was followed by the rear fuselage and then the center section. At one point in the day, both a Bell 204 and Jet Ranger could be seen approaching Seal Cove with their under-slung cargo of Shark parts.

A few breaks in between trips, when VIH was flying customers, allowed the crew at the wreck to continue working on the fuselage and engine. John and Ron also had time to walk to the ocean, looking for pieces of the aircraft someone might have tried to remove from the crash site. Nothing was found, suggesting that the aircraft had few visitors in the last forty-one years.

When no headway was being made on removing the last pieces of the aircraft, a decision was made to return to the aircraft after the ground had dried out in the summer weather. The tools and supplies were packed and the men waited the last helicopter flight of the day.

This last flight proved the only difficult moment of the recovery trip. The crew climbed into the Bell 204 with the tools and supplies, and the Shark's Bristol B3/M floats were attached to the underside of the aircraft.

The winds had shifted directions in the late afternoon and the floats, because of their light weight, were oscillating very badly in the cross wind. The pilot had to slow to 40 knots and take an indirect route to Seal Cove over Cooper and Digby Islands. For a moment it appeared that the floats might have to be dropped, but fortunately this was not necessary.

The team was reunited at Seal Cove at four o'clock, by which time many employees at Seal Cove had walked over to look at the strange veteran. That evening everyone went out for dinner to celebrate the return of Shark No. 518. Later that night it rained, leaving Ron and John wet in their tent. At times like this, Jim's "Camper Coffee" was appreciated the most!

With most of the Shark at Seal Cove and the tripod marking the location of the engine and forward fuselage, Thursdays activity including building a platform on Fred's pickup for the wing

sections and smaller pieces of the aircraft. By arrangement with the Coast Guard, most of the large sections of the Shark were transferred to a locked compound where they would be stored until arrangements were made for their shipment to the museum storage site. Time was also needed to overhaul the ignition and starter of Fred's 1967 pickup, and replacing the donuts of the exhaust system.

At about Thursday noon, while work was proceeding on fixing the truck and loading the Shark, the Museum team was visited at Seal Cove by reporters from the CBC and the *Prince Rupert Daily News*. The CBC carried a report of the recovery on their news broadcasts and the paper ran a front page story the following day.

The two trucks finally pulled out of Prince Rupert on Thursday evening after everyone at Vancouver Island Helicopters and the Canadian Coast Guard had been thanked for their tremendous hospitality and assistance. Jim drove through the night to his relatives in Cache Creek and Fred stopped at Houston, before continuing on to Cache Creek the following day. Friday was spent relaxing at Jim's relatives before everyone continued on to the Lower Mainland on Saturday.

Fred arrived at the Museum's storage site at two o'clock Saturday, after stopping at Abbotsford to view another aircraft he helped build. Pitts Special C-GPRB had been built over several years by Ray Brown and Fred Gardham at Barron's autobody, in downtown Vancouver. It had made its first flight while Fred was away chasing another Vancouver built aircraft!

The wings of Shark No. 518 attracted much interest at last year's annual open house. While badly damaged, corrosion is minimal and some of the stainless steel fittings look as good as new. The recovery of the engine and forward fuselage was lead by John de Visser in September, 1983, with the assistance of Kerry Miska & Michael MacGowan and the Canadian Coast S-61N. Coast Guard engineer Ken Reed also participated.

Blackburn Shark No. 518 has now been placed in storage. Restoration plans will have to await the location of Shark manuals and blue prints, as well as additional parts. Anyone with these items is requested to contact the museum immediately. The museum would also like to hear from former Boeing employees or RCAF personnel who worked on or flew the Shark. The loan of photographs of the Shark production line or aircraft in service



Jim Mufford, Monty Montezuma and Ron Prudhomme take a coffee break.

would be appreciated. These, and log book entries, will be copied and returned.

The Canadian Museum of Flight would like to thank all those who assisted in the recovery of Blackburn Shark No. 518, including pilots and engineers of Vancouver Island Helicopters and pilots and engineers of the Canadian Coast Guard-Seal Cove, with special thanks to Alf Stringer and Ken Norie of VIH. — Photos by Fred Gardham

## PIONEER PROFILE

# Stan McMillan

In the days when the north was virtually unmaped and unknown, adventures were a daily occurrence, but some were more spectacular than others. Such was the fate of Stanley Ransome McMillan in 1929.

Stan McMillan was a pilot under contract with Dominion Explorers—Domex—and one of eight members of the MacAlpine Expedition. This expedition, conducting a first in aerial prospecting surveys, had been planned to go from Churchill to Aklavik by way of Bathurst Inlet, Great Bear and Ft. Norman, a route not previously flown.

Weather and ice forced the group to set out in September, later than originally planned, and as a result, they ran out of two arctic essentials—good flying conditions and sufficient enroute fuel. The two aircraft were forced to land at Dease Point

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but the crew were fortunately able to remain in the company of a band of Eskimos, until the strait froze. Their native friends guided them on a 10-day struggle across 50 miles of treacherous ice to Cambridge Bay, which is a difficult way to learn survival in the Arctic. After 54 days of silence, Stan's young bride—and the world—finally heard by wireless that all was well.

Pilots of the 1920s and 1930s were few in number, thus their flight paths were drawn one to the other. Among the searchers for the lost Mac-Alpine Expedition were Herbert Hollick-Kenyon and Punch Dickens.

The day after WWII was declared, Stan was in the RCAF. During these years, he flew anti-submarine patrols, convoy patrols and ferried flying boats from Bermuda to the U.K. In 1945 he retired with the rank of Wing Commander.

## Did You Know?

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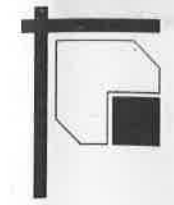
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