

Newsletter 408-437 Wing Wing Mate

Royal Canadian Air Force Association of Canada



Grumman F8F Bearcat

June  2021

AIR FORCE ASSOCIATION of CANADA MISSION STATEMENT

The Air Force Association of Canada is a national aerospace and community service organization whose aim is to commemorate the noble achievements of the men and women who have served as members of Canada's Air Force since its inception, advocate for a proficient and well equipped Air Force and, support the Royal Canadian Air Cadets.

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Sick and Visiting

Be sure to advise Barbara Newman, Fellowship Chair, if you are aware of a Wing member who is ill or in distressed circumstances.

Barbara can be reached at 416-223-7840.

From Comedian Steven Wright...

Half the people you know are below average.

The early bird may get the worm, but the second mouse gets the cheese.

I almost had a psychic girlfriend, but she left me before we met.

If everything seems to be going well, you have obviously overlooked something.

Ambition is a poor excuse for not having enough sense to be lazy.

My mechanic told me, "I couldn't repair your brakes, so I made your horn louder."



JUNE & JULY Happy Birthday!

JUNE

5th.....	Stan Heather
6th.....	Terry Sleightholm
7th.....	Chris Skalozub
30th.....	Margaret Cole

2021

JULY

12th.....	Ted Barris
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President's Report



Dear Members,

It's difficult to believe we're again in June. This is the last Wing Mate until September. Let's give Terry Sleightholm a hand, ok just an elbow rub, but that's it, for producing the monthly issue of the Wing Mate. Not that my enthusiasm is crushed, perhaps somewhat tattered, but there will be no year-end BBQ. With anticipation we will have the 'Bangers and Mash' in September. On a positive note, as far as I know everyone in the Wing is safe.

A reminder if you have not sent your dues to Margaret yet, that it's important to this Wing and the Association as a whole that we support it. Our Treasurer David Oullette has to remit the membership dues to Ottawa at \$54 per, based on what we think our membership roll will be for the coming year. The Wing finances are still in good shape for the coming year; if you'd like more details, please contact David or me.

We will see an end to this plague and so we we'll carry on. At the beginning of this disaster if you will recall, the media's weekly favourite theme was the 'post covid normal', whatever that means. Predictably you don't hear that phrase much anymore. It is has become glaringly evident that things will return to normal; as it was in the beginning, and quickly.

Simply because people are not buying in. I hate to say 'I told you so', but you heard it here first. Back in the March issue I prophesized that our guiding lights would find a way to keep the unenlightened (you and I) locked down over the May long-weekend. And there we go, done and wrapped.

But wait! There is more! I think that the Canada Day is already covered. Because now the goal posts have been moved again, evidently it's our fault because lockdowns are now strictly dependent on how fast we subject ourselves to the 'jab.' Not the confusing colour scheme. Now it's us against the hordes outside the walls.

Have good summer! See you in September. Happy Father's Day.

Nick Czernkovich

818 Toronto Falcon Squadron Royal Canadian Air Cadets

With Jackie Johnston



This has definitely been a year to remember. Monday, June 7th 2021 will be the last evening when the cadets and staff of 818 RCACS will be parading, and hopefully the last time we will be doing it virtually. I want to openly express my gratitude to my amazing staff, the hardworking cadets and our dedicated SSC for staying strong during this time and remaining patient and adaptable and the entire CCO was figuring out how we move forward with this new reality. For our final week we will be holding an awards ceremony as well as rank promotions. It will be very different than our traditional Annual Ceremonial Review but our cadets and staff have been working hard to bring our virtual finale together.

As I reflect on the year I feel a lot of pride in the effort our staff and our senior NCOs have made to keep us going. Unfortunately we experienced a very down year when it comes to recruitment and overall interest has been low as well. We project to finish this year with around 30 but each one of them is dedicated to the program and is optimistic about the future. As the CO, I can see a lot of potential in how we were able to create flexibility by utilizing virtual training platforms and really want to explore new ways to keep virtual elements in our Training Program, even when we finally return to in-person opportunities.

There still remains a lot of uncertainty but I believe our Squadron will bounce back as we rebuild. The staff and I are prioritizing two things this summer. First, developing an engaging and comprehensive training plan. Second, strengthening the relationship with our cadets and their parents, through better communication, to ensure good retention and recruitment for a strong start to the 2021/2022 Training Year.

Thank all of you at the 408-437 Wing for your years of support. I hope that next year brings more opportunity to collaborate. To all the cadets and staff of 818 RCACS, I wish everyone a safe, healthy and fun-filled summer. Daryl Abbott, Captain, 818 RCACS

Grumman Bearcat

The Grumman F8F Bearcat is an American single-engine carrier-based fighter aircraft introduced in late World War II. It served during the mid-20th century in the United States Navy, the United States Marine Corps, and the air forces of other nations and was Grumman Aircraft's last piston engine fighter aircraft.

Modified versions of the Bearcat have broken speed records for piston-engine aircraft and today it is popular among warbird owners and air racers.



Bearcat prototype

The Bearcat concept began during a meeting between Battle of Midway veteran F4F Wildcat pilots and Grumman Vice President Jake Swirbul at Pearl Harbor in June 1942. What was emphasized as one of the most important requirements in a good fighter plane was climb rate.

Climb performance is strongly related to the power-to-weight ratio, and is maximized by wrapping the smallest and lightest possible airframe around the most powerful available engine. Another goal was that the G-58 should be able to operate from escort carriers, which were then limited to the obsolescent F4F Wildcat as the Grumman F6F Hellcat was too large and heavy. A small, lightweight aircraft would make this possible. After analyzing carrier warfare in the Pacific Theatre for more than a year, Grumman began development of the Bearcat in late 1943.

In 1943, Grumman was in the process of introducing the F6F Hellcat, powered by the Pratt & Whitney R-2800 engine which provided 2,000 horsepower, and was the most powerful American engine available at that time. Thus, improved performance would have to come from a lighter airframe. To meet this goal, the Bearcat's fuselage was about 5 feet shorter than the Hellcat, and was cut down vertically behind the cockpit area. This allowed the use of a bubble canopy, the first to be fitted to a US Navy

fighter. The vertical stabilizer was the same height as the Hellcat's, but increased aspect ratio, giving it a thinner look. The wingspan was 7 feet less than the Hellcat's. Structurally the fuselage used flush riveting as well as spot welding, with a heavy gauge aluminum alloy skin suitable for carrier landings. Armor protection was provided for the pilot, engine and oil cooler.



The Hellcat used a 13 foot, three-bladed Hamilton Standard propeller. For the Bearcat, a slight reduction in size was made by moving to a 12 foot, 7 inch four-bladed propeller. Keeping the prop clear of the deck required long landing gear, which, combined with the shortened fuselage, gave the Bearcat a significant "nose-up" profile on land. The hydraulically-operated undercarriage used an articulated trunnion which extended the length of the oleo legs when lowered; as the undercarriage retracted, the legs were shortened, enabling them to fit into a wheel well which was entirely in the wing. An additional benefit of the inward retracting units was a wide track, which helped counter propeller torque on takeoff and gave the F8F good ground and carrier deck handling. The design team had set the goal that the G-58 should weigh 8,750 pounds fully loaded. Ultimately much of the weight-saving measures included restricting the internal fuel capacity to 160 US gallons and limiting the armament to four .50 cal Browning machine guns, two in each wing. The limited range due to the reduced fuel load would mean it would be useful in the interception role, but meant that the Hellcat would still be needed for longer range patrols. A later role was defending the fleet against airborne *kamikaze* attacks. Compared to the Hellcat, the Bearcat was 20% lighter, had a 30% better rate of climb and was 50 mph faster.

Another weight-saving concept the designers came up with was detachable wingtips. The wings were designed to fold at a point about $\frac{2}{3}$ out along the span, reducing the space taken up on the carrier. Normally the hinge system would have to be built very strongly in order to transmit loads from the outer portions of the wing to the main spar in the inner section, which adds considerable weight. Instead of building the entire wing to be able to withstand high-g loads, only the inner portion of the wing was able to do this. The outer portions were more lightly constructed, and designed to snap off at the hinge line if the g-force exceeded 7.5 g. In this case the aircraft would still be flyable and could be repaired after returning to the carrier. This saved 230 pounds of weight. The first prototype flew in August 1944, only nine



months after the design effort started. The initial flight test demonstrated a 4,800 feet per minute climb rate and a top speed of 424 mph. Compared to the Vought F4U Corsair, the Bearcat was marginally slower but more maneuverable and climbed more quickly.

Testing demonstrated a number of problems, notably a lack of horizontal stability, an underpowered trim system, landing gear that could be extended only at slow speeds, an unreliable airspeed indicator, and a cramped cockpit. The test pilots also requested that six guns be installed. The stability problem was addressed on the second prototype by adding a triangular fillet to the front of the vertical stabilizer. The extra guns could not be incorporated due to weight and balance considerations.

The F8F prototypes were ordered in November 1943 and first flew in August 1944, a mere nine months later. The first production aircraft was delivered in February 1945 and the first squadron, Fighter Squadron 19 (VF-19), was operational by 21 May 1945, but war was over before the aircraft saw combat service.

One problem that became evident in service was the snap-

off wingtips not working as expected. While they worked well under carefully controlled conditions in flight and on the ground, in the field, where aircraft were repetitively stressed by landing on carriers and since the wings were slightly less carefully made in the factories, there was a possibility that only one wingtip would break away with the possibility of the aircraft crashing. This was replaced with an explosives system to blow the wingtips off together, which also worked well, but this ended when a ground technician died due to an accidental triggering. In the end, the wings were reinforced and the aircraft limited to 7.5 g.

Deliveries of 2,000 from Grumman began in May, 1945. The end of the war led to the Grumman order being reduced to 770 examples, and the GM contract for 1,876 being cancelled outright. An additional order was placed for 126 F8F-1B's replacing the .50 cal machine guns with the 20 mm M2 cannon, the U.S. version of the widely used Hispano-Suiza HS.404. Fifteen of these were later modified as F8F-1N night fighters with an APS-19 radar mounted under the starboard wing.

An unmodified production F8F-1 set a 1946 time-to-climb record of 10,000 feet in 94 seconds. The Bearcat held this record for 10 years until it was broken by a jet fighter (which still could not match the Bearcat's short takeoff distance).

In 1948 Grumman introduced a number of improvements to produce the F8F-2. Among the changes were a modified cowling design, taller vertical fin, and the slightly more powerful R-2800-30W engine. A total of 293 F8F-2s were produced, along with 12 F8F-2N night fighters and 60 F8F-2P reconnaissance versions. Production ended in 1949, and the first units began to convert off the type that year. The last Bearcats were withdrawn in 1952.

Postwar, the F8F became a major U.S. Navy and U.S. Marine Corps fighter, equipping 24 fighter squadrons in the Navy and a smaller number in the Marines. Often mentioned as one of the best-handling piston-engine fighters ever built, its performance was sufficient to outperform many early jets. Its capability for aerobatic performance is illustrated by its selection as the second demonstration aircraft for the navy's elite Blue Angels flight demonstration squadron in 1946, replacing the Grumman F6F Hellcat. The Blue Angels flew the Bearcat until the team was temporarily disbanded in 1950 during the Korean War and pressed into operational combat service. The F9F Panther and F2H Banshee replaced the Bearcat as their performance eclipsed piston-engine fighters.

First combat for the Bearcat was in the French Indochina War, 1946–1954, when 200 were delivered to the French forces in 1951.

When the war ended in 1954, 28 surviving Bearcats were supplied to the Republic of Vietnam Air Force and entered service in 1956. The Vietnamese Bearcats were retired in 1960, replaced with Douglas A-1 Skyraiders and North American T-28 Trojans as the Vietnam War (1957–1975) continued. F8Fs were also supplied to Thailand during the same time period.

Bearcats have long been popular in air racing. A stock Bearcat flown by Mira Slovak and sponsored by Bill Stead won the first Reno Air Race in 1964. *Rare Bear*, a highly modified F8F owned by Lyle Shelton, went on to

dominate the event for decades, often competing with Daryl Greenamyer, another famous racer with victories in his own Bearcat (*Conquest I*, now at the Smithsonian's NASM) and holder of a piston-engined aircraft world speed record in it.

Rare Bear also set many performance records, including the 3 km World Speed Record for piston-driven aircraft (528.33 mph) set in 1989, and a new time-to-climb record (9,800 feet) in 91.9 seconds (6,425.9 ft/min) set in 1972, breaking the 1946 record cited above.

Too late for WW 2 but what a beautiful aircraft post war!



Conquest I...483 mph



Rare Bear...500 mph+

Grumman test pilot Bob Hall made the first Bearcat flight on 21 August 1944 in the first XF8F-1 prototype (BuNo 90460).



This F8F-1 (BuNo 95081) of VF-3 was flown by LT. A.M. "Mike" Granat during early 1946.



The number 2 Bearcat of the Blue Angels Demonstration Team during 1948.



This overall Yellow Bearcat was the solo performer for the Blue Angels and carried the name *Beetle Bomb* on the cowl.



An F8F-2 of VF-151 aboard USS BOXER (CV-21) during 1950.



Canadian Airmen



LCol Donald Currie Laubman, DFC AOE CD 1921 – 2018

Don Laubman was born in Provost, Alberta, on 16 October 1921. He enlisted in the RCAF in September 1940, and completed his pilot training in Calgary at No 3 Service Flying Training School. Rated above average as a pilot, he then served as an instructor at No 31 Elementary Flying Training School at De Winton. In September 1942 he was commissioned and served with No. 133 Squadron, RCAF on the Canadian west coast until May 1943.



In September 1942 he was commissioned and served with No. 133 Squadron, at Boundary Bay, British Columbia, Canada until May 1943. In August 1943 he went overseas to RAF Redhill in England and then posted to No. 412 Squadron RAF, 126 Wing (83 Group, 2nd Tactical Air Force).

In the late spring and early summer of 1944 F/L Laubman and 412 Squadron were based in Tangmere, West Sussex, and flew fighter operations over occupied Europe. After witnessing an impassioned speech given by General Dwight D. Eisenhower, 412 crossed the English Channel on 6 June 1944, covering the landings on Juno Beach. From D-Day to VE Day, 13 RCAF fighter pilots in service on the continent accounted for more than 120 German aircraft claimed destroyed. The top scorer was Squadron Leader Don Laubman, with 15 victories.

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On 26 and 27 September Laubman flew four missions and downed seven enemy aircraft; four German Focke-Wulf Fw 190s and three German Messerschmitt Bf 109s (plus another Bf 109 damaged). This happened in the Nijmegen area (the location of Operation Market-Garden, the airborne operation to capture the Dutch Rhine bridges.)

After his tour ended he arrived back in Canada in November 1944. Laubman applied to return to active duty and was assigned command of No. 402 Squadron RAF as a Squadron Leader. Laubman was shot down by flak and became a prisoner of war on 14 April 1945.

Laubman's final count was 15 destroyed, and 3 damaged. 14 of those 15 were between June and October 1944.

He was released from the RCAF in September 1945, but rejoined the RCAF in January 1946. Laubman first served with No. 6 Communications Flight, NWAC. He was a founding member of the Blue Devils aerobatic team and flew with the team from 1949 to 1951. He then commanded No. 416 Squadron from January 1951 to March 1952 and went on to command No. 3 Wing at Zweibrücken from July 1963 to August 1966. In April 1967 he was promoted to Air Commodore and he took up command of No. 1 Air Division in July 1969, remaining in the post until April 1970. He was then made Commander of Canadian Forces Europe in April 1970 to August 1971 before becoming Chief of Personnel, CFHQ in May 1972 until his retirement. Upon his retirement he held the rank of Lieutenant General. In 2007, he was awarded the Alberta Order of Excellence for distinguished service as a fighter pilot with the RCAF and as a central Alberta business and community leader. He died in June 2018 at the age of 96.

