



Catalina IV, JZ829, shown here on display under the name **DAVID HORNELL**, for F/L Hornell who was awarded the Victoria Cross for heroism in action involving the sinking of German sub U-1225 on 25 June 1944. (Photo—Boeing, courtesy of Gordon S. Williams)

THE CONSOLIDATED PBY

PART II By Capt. WILLIAM E. SCARBOROUGH, USN, (Ret.)

Catalina service with the RCAF dates from June 1941, when 9 RAF Catalina I's operating from Bermuda were ferried to Dartmouth for RCAF No. 116 Squadron. During the latter half of 1941, 50 PBV-5A Canso A's were delivered and additional operating units equipped. As Canadian production continued, the Catalina/Canso force grew and by mid-1944, had reached 274. During World War II, thirteen RCAF squadrons operated these aircraft from bases on both coasts of North America and overseas in Iceland, Scotland, Ireland, the Shetlands, and in the Indian Ocean area. RCAF Eastern Air Command squadrons made many submarine attacks and are credited with 7 kills. Western Air Command squadrons operated Catalina and Canso A aircraft during only the last two years of the war and were effective in search and rescue work in addition to the monotonous grind of anti-submarine patrol in their area, where attack opportunities were rare. The overseas squadrons, 413 and 422, operated RAF Catalinas under the control of RAF Coastal Command.

At the risk of an injustice to the other squadrons, No. 413 and 162 have been selected for a summary of their operations. For 413, this eventually involved service on four continents and an outstanding combat record. No. 162 (BR) operations while based in Iceland at the height of the North Atlantic anti-submarine campaign provided opportunities for action which produced a record of six submarine sinkings.

Part II of "The Consolidated PBV" includes the information provided by Robert W. Bradford concerning the operations of Nos. 413 and 162 Sqdns., RCAF, during WWII.

NO. 413 "Tusker" Squadron

Originally a fighter squadron, 413's insignia was an elephant's head on a maple leaf background. The squadron's motto "Ad Vigilans Undis" translates "We watch over the waves."

The story of 413 Squadron as a Catalina unit begins at Stranraer on the south-western coast of Scotland on July 1, 1941. The fact that this was Dominion Day, and also the Squadron's birthday, was a matter of chance and not due to any official intent to mark the unit being Canadian. It was the eleventh such unit to be formed.

After three months of training, the Squadron moved further north to Sullom Voe in the Shetland Islands and flew over the north-eastern Atlantic escorting convoys, hunting submarines, and making reconnaissance runs on the Norwegian Coast.

Following the start of the Pacific war and the Japanese threat to Ceylon and the Indian Ocean areas, a number of air units were selected to strengthen far eastern defenses. No. 413 Squadron was alerted late in February of 1942 as one of these and was ordered to prepare for a move overseas under the command of W/C J.L. Plant, a veteran Canadian flying boat pilot.

413 Sqdn. set out from Sullom Voe late in March, flew south to Gibraltar and thence eastward across the Mediterranean to Cairo. The next leg of the journey took the Catalinas across the desert to the Persian Gulf, eastward through the Gulf of Oman to Karachi and then down the coast of India to Koggala at the southern tip of Ceylon.

On 2 April 1942, the Squadron flew its first mission from



L-2, ex-NC777 GUBA I, at Floyd Bennett Field, August 1937, awaiting transshipment to Russia. It was sold by Dr. Archbold to the USSR for an unsuccessful attempt to rescue the Soviet flyer Levanevsky, downed in the Arctic. (Photo—Howard Levy)

the new base, making a long reconnaissance over the Bay of Bengal and the Indian Ocean in search of Japanese forces. Two days later S/L L.J. Birchall, who had just reached Koggola after the long flight from Britain, took off for another reconnaissance over the ocean. Several hours later, a wireless message was received from him reporting a large enemy force sighted about 350 miles south of Ceylon. Part of the message was not received, and requests for repetition brought no reply. The aircraft did not return, and for many months S/L Birchall and his eight crew members were missing.

Thanks to the warning given, the defenses of Ceylon were alerted. Ships were dispersed to safety, and when the Japanese attack came, the Island was able to beat it off. It was learned later that S/L Birchall, then hailed as the "Saviour of Ceylon" was a POW; after being shot down near the ships which they had sighted, the crew was picked up and spent the next three years in Japanese prison camp.

Four days after W/C Birchall and his crew were missing, another of the Squadron's Catalinas, flown by F/L R. Thomas, was lost. Instructed to hunt for the Japanese naval forces which had launched attacks on Colombo, Thomas located the force about 300 to 400 miles east off Ceylon and was wirelessly a contact report when his Catalina was shot down. Once again the warning came in time to alert the defenses and an attack on the naval base, Trincomalee, the next day received a hot reception from defending fighters and guns.

After these stirring events in the first days in Ceylon, No. 413 settled down to a routine of reconnaissance, convoy escorts, and anti-submarine patrols. In December 1942, a new Commanding Officer, Wing Commander Scott, carried out a long distance reconnaissance to investigate Japanese activities in Northern Sumatra, 1,000 miles away across the Indian Ocean. He and his crew returned safely after a flight of almost 17½ hours during which time they had covered

2,000 miles of open sea. Information obtained on the reconnaissance proved of great value, and W/C Scott was awarded the DSO.

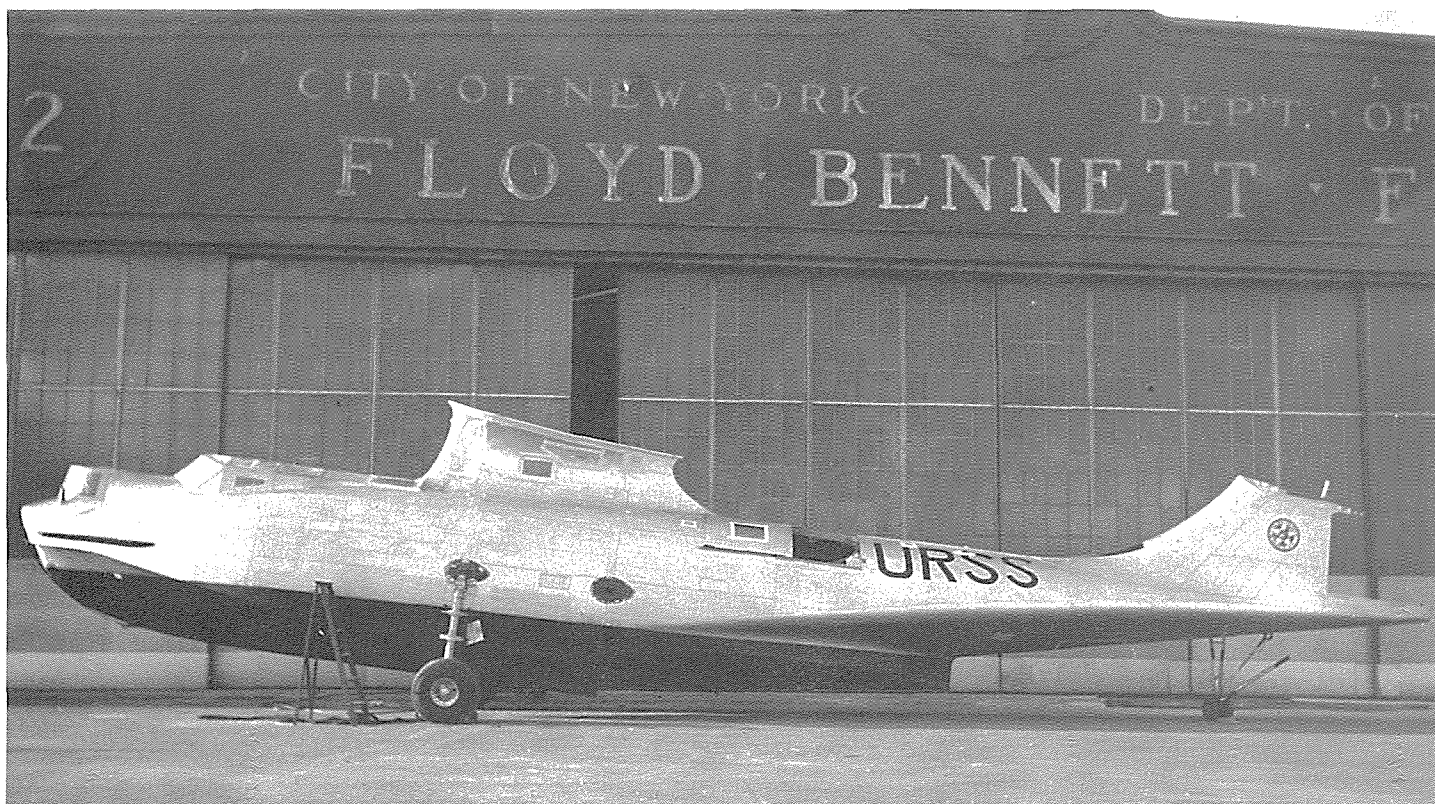
A few months later a special long-range Catalina was provided for freight service between Ceylon and Australia, and W/C Scott made the first flight on this service in May, 1943. The outward flight south-eastward across the ocean required 23½ hours; the return trip was two hours longer.

While these operations were going on from Koggola, other crews had been operating from widely-dispersed bases across the Indian Ocean. Detachments were sent to Addu Atoll 500 miles southwest of Ceylon, to Diego Garcia in the middle of the Indian Ocean more than 1,000 miles from the squadron base, into Aden, and the Persian Gulf, and to stations on the east and south coasts of Africa and the Cape. Some of the crews were a good 5,000 miles from their home base and the Squadron boasted that it was the most widely dispersed unit in the world. In March 1944, reconnaissance of the Cocos Islands between Ceylon and Australia was carried out by S/L G.H. Bayly and his crew. This flight covered 3,032 nautical miles in 27 hours and 40 minutes.

In November 1944, 413 was informed they would leave Ceylon and return to Britain. Operations from Koggola ceased on the 3rd of December and the Squadron went onto non-operational status. 413 was placed on a number basis in bomber command with the intention of converting the unit to a heavy bomber role but hostilities ended before this was done.

NO. 162 (BR) SQUADRON

The formation of No. 162 Squadron, at Yarmouth, Nova Scotia, became effective on 27 April 1942. F/L M.E. Small was appointed Officer Commanding. The aircraft complement was to be PBV-5A Canso aircraft, but only four were made available at the time of its formation.



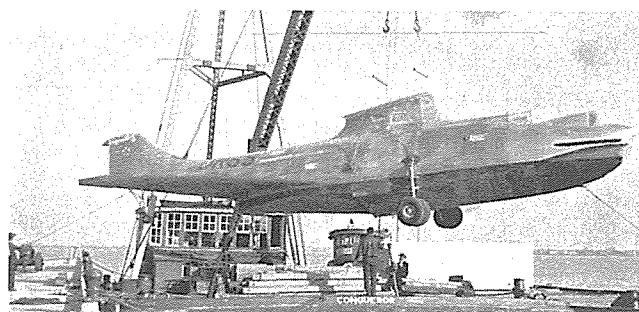
At Floyd Bennett Field it was cocooned, wing dismantled, for shipment across the Atlantic by steamship. The emblem of Biological Explorations still appears on the vertical fin. The view below shows final loading aboard ship, vessel name unknown. (Photo—H. Levy)

Operations commenced in May 1942, and by March 1943, the aircraft strength was up to eleven Canso's. On 22 September a signal was received advising of the movement of the Squadron from Yarmouth to Dartmouth, Nova Scotia. Then, in November Eastern Air Command recommended that No. 162 Squadron be offered to the Air Ministry to operate under RAF Coastal Command from Iceland. On December 7th, 1943, instructions were received to prepare the Squadron to proceed overseas. The Squadron was detached from Eastern Air Command to operate from Reykjavik, Iceland, under the operational control of the Air Officer Commanding, RAF Coastal Command, but continued under the administrative control of the Air Officer Commanding, Eastern Air Command, RCAF.

On the 17th of April 1944, F/O T.C. Cooke and his crew, while on a meteorological flight, sighted a submarine wake at a distance of about six miles. Attack was made out of the sun and flak was experienced at 3,000 yards. At 1,200 yards, the pilot turned in to make a beam attack and immediately opened fire with nose guns. Hits were noted in the region of the conning tower while flak burst on all sides of the Catalina but the airplane was not hit. Passing over the bow of the submarine, three depth charges were dropped at 50 feet, in a straddle of the target. The Catalina circled to the left and the U-boat emerged from the plumes of the depth charges making a tight turn to starboard and then to port. During this time, it appeared to settle gradually into the water. Meanwhile, Cooke circled and his gunner continued to fire from the port blister. Nine minutes after the attack a violent explosion occurred 15 feet forward of the conning tower creating a plume resembling that caused by a depth charge. The U-boat U-342 sank immediately.

In May 1944, a total of 1,456 flying hours were flown over an area stretching from Moncton, New Brunswick to Wick, Scotland, touching Labrador, Greenland, Iceland, and within 30 miles of Norway. Aircraft availability averaged nine

SUMMER 1971



of thirteen assigned — a fine testimonial to the hard working maintenance crews and the reliability of the Catalina.

June, from beginning to end, was the most noteworthy month in the history of the Squadron. All available aircraft were operating from RAF Station, Wick, Scotland, making Reykjavik merely a repair and rest base.

On June 3rd, F/L R.E. McBride scored with an attack on a submarine. The aircraft dropped four depth charges from a height of 60 feet. Explosions from the depth charges straddled the target which was completely enveloped in plumes. Five survivors of U-477 were seen.

On the 11th F/O L. Sherman sighted a surfaced U-boat and attacked with four depth charges which straddled the target. When the submarine, U-980, emerged from the depth charge plume, it continued to circle at a much slower speed leaving an oil trail. At 1532 hours, it sank leaving wreckage and approximately 35 survivors in the water.

On the 13th of June, W/C G.C.W. Chapman and crew sighted a U-boat at 1012 hours. An attack was carried out from 50 feet and four depth charges were dropped. The U-boat, U-715, travelled about 400 yards from the time the depth charges exploded while the Catalina circled. It then

began to settle, the conning tower disappeared, the stern went up in the air at a fairly sharp angle, and the rudder and screws were plainly visible. Many of the crew were seen in the water. While Chapman circled overhead to photograph the sinking submarine, the conning tower began to reappear. As the Catalina made another run, the pilot saw a crew member run to man the deck guns. Chapman began "jinking" violently, and just after passing over the U-boat an explosion was heard in the airplane. The port engine began to leak oil very rapidly while belching black smoke. The engine was shut down but the propeller could not be feathered. Despite full boost to the starboard engine, the Catalina began to lose height from 1,000 feet down to sea level. It hit heavily and began to sink.

The crew was uninjured and abandoned the airplane in the two dinghys. Some time later, a Warwick made two runs over the crew and dropped an airborne lifeboat. F/O D.J.C. Waterbury swam out to retrieve the lifeboat from the point at which it impacted some 100 to 150 yards away. The others climbed into the lifeboat, which had been damaged in the impact, and was under water bow to stern. They were eventually rescued and W/C Chapman was awarded the DSO.

One of the outstanding events in the history of No. 162 Squadron was the attack on the U-1225 on the 24th of June 1944 by F/L David Hornell and his crew. Early in June the squadron had been able to sink three U-boats. In all instances, however, the subs remained on the surface and put up a murderous anti-aircraft fire resulting in the loss of two Canso A aircraft. F/L Hornell was fully aware of the hazards when he took off on the 24th of June in Canso No. 9754 for a sortie which would end in a gallant and tragic attack on U-boat U-1225 north of the Shetland Islands.

The patrol had lasted for some hours when a fully-surfaced U-boat was sighted travelling at high speed on the port beam. F/L Hornell at once turned into the attack. The U-boat altered course. The Catalina had been seen and there could be no surprise. U-1225 opened up with anti-aircraft fire which became increasingly fierce and accurate. At a range of 1,200 yards, the front guns of the aircraft replied. Then its starboard gun jammed leaving only one gun effective. Hits were obtained on and around the conning tower of the submarine but then the airplane itself was hit, two large holes appearing in the starboard wing.

Ignoring the enemy fire, F/L Hornell carefully maneuvered for the attack. Oil was pouring from his starboard engine which was by this time on fire as was the starboard wing.

U-1225 continued to strike, and the Catalina was nearly uncontrollable, but Hornell pressed his attack home and brought his aircraft down very low, releasing his depth charges in a perfect straddle. The bow of the U-boat lifted out of the water as it sank and some of the crew were seen in the sea. F/L Hornell, by superhuman effort at the controls, tried to gain a little height. The fire in the starboard wing had grown more intense and the vibration had increased; then the burning engine fell off.

The plight of the aircraft and crew was now desperate. With utmost coolness, the Captain took his aircraft into the wind, and despite the manifold dangers, brought it safely down in the heavy swell. Badly damaged and blazing furiously, the aircraft rapidly settled. There was only one serviceable dinghy and this could not hold all the crew. They took turns in the water holding on to the sides. Once, the dinghy capsized in the rough seas and was righted only with great difficulty. Two of the crew succumbed from exposure. An airborne lifeboat was dropped to them but fell some 500 yards downwind.

The survivors were finally rescued after they had been in

the water for 21 hours. By this time, F/L Hornell was blinded and completely exhausted; he died shortly after being picked up. F/L Hornell was awarded the Victoria Cross for this action and the five surviving crewmen were decorated.

On the 30th of June 1944, F/L McBride and crew sighted and attacked another U-boat. The submarine submerged but was sighted again later in the day. An attack was attempted but hangups in the depth charges prevented success. F/L McBride then carried out homing procedures and homed a Liberator of 86 Squadron from an adjoining area which carried out a successful attack and sank the enemy submarine, the U-478.

The next time the Squadron spotted a U-boat, it was on the 11th of May 1945 when F/O R.L. Clarke spotted one flying the black flag of surrender and directed naval units to the scene.

No. 162 Squadron was disbanded on the 7th of August 1945 after an outstanding record in anti-submarine warfare.

The Sighting

Because of the drama of the occasion, the sighting of the BISMARCK is worth repeating here, from *Coastal Command** (excerpted):

On board the "Bismarck" there was much rejoicing, not without good reason. She had damaged the "Prince of Wales." She had sunk the "Hood." That evening there was a large extra issue of sausage, chocolate and cigarettes, and Hitler conferred the Knight Insignia of the Iron Cross on the First Gunnery Officer. True, the speed of the ship had been reduced, for a shell from the "Hood" had partially flooded some of her compartments and had also made it impossible to use the oil fuel in the forward bunkers — it was this oil escaping from the ship which had left the broad ~~stein~~ upon the sea seen by the Sunderland — but a formidable unit of the British Fleet had been disposed of and another, still more formidable, had been damaged. Surely it was now time to return to the safety of the Norwegian fjords!

Captain Lindemann, in command of the "Bismarck," thought so; but he was overruled by his Admiral, who ordered the "Prinz Eugen" to part company while the "Bismarck" held on her course for a French port. Night fell without further incident, but soon after midnight torpedo-carrying Swordfish from the "Victorious," supported by Fulmars, delivered an attack in which a hit was scored on the starboard side. Survivors from the "Bismarck" subsequently spoke with surprise and admiration of the courage displayed by the British pilots. One Swordfish, they said, after being hit, still tried to get into a position from which to release its torpedo before plunging into the sea. The anti-aircraft fire of the "Bismarck" was tremendous, many of the guns becoming redhot. Our losses in this attack were two Swordfish and two Fulmars, the crews of the Fulmars being saved. It was put about on board the "Bismarck" that forty-seven British aircraft had been destroyed.

Soon after 3 o'clock that morning, 25th May, visibility became very bad, and contact with the "Bismarck" was at last

**Coastal Command. The Air Ministry Account of the Part Played by Coastal Command in the Battle of the Seas, 1939-1942. London: H.M. Stationery Office, 1942.*