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# RETURN OF THE ALBATROSS



**PATRICK DEAN** reports from the annual Grumman Albatross Fly-in at Boulder City that took place during February. This event offers enthusiasts the opportunity to see many of these grand amphibians operating both from land and water

In some ways the Grumman Albatross is much like its namesake. As a 'warbird' it was operated in a solitary role flying far out at sea for extended periods. In active service it was never flown by the U.S. Navy in squadrons. They were assigned to all Naval Air Stations as lone station aircraft. The U.S. Air Force and Coast Guard did assign them in squadrons, although it performed its duties for the most part alone. Although arriving for service too late for World War Two, it has an impressive service record in both Korea and Vietnam, performing well in both theatres rescuing 66 downed airmen in Korea and 70 in Vietnam.

## ALBATROSS VARIANTS

The HU-16 is the result of the U.S. Navy seeking a longer-range amphibian for utility transport and air-sea rescue. The Grumman Goose served with the Navy during World War Two in a transport role. A longer-range aircraft was needed and Grumman won approval for design G-64 in 1944, with the first prototype flying on October 24 1947. The U.S. Air Force ordered 305 aircraft designated SA-16A, and in 1957 the improved version SA-16B with longer 96-foot wings and extended range went into service. In 1962 the designation was changed to HU-16. The U.S. Air Force SA-16A became the HU-16A, and 241 aircraft were returned to Grumman and rebuilt to HU-16B specification. The U.S. Navy UF-1 became the HU-16C, and the long-wing model became the HU-16D, while the U.S. Coast Guard model designated UF-1G in turn became the HU-16E.

**HEADING PHOTOGRAPH:** Owned by Billabong Hawaii, N121FB is a former USAF, US Coast Guard and Chalk's ship. (Chris Leoni)

Former Chalk's trainer N7973B owned by Paul Rivas sits alongside N20861 with skull and crossbones flying at Boulder City. (Patrick Dean)



There are some features that should be noted when reviewing the Albatross. The first production ships had an 80-foot wingspan and a 24 foot 10 inch vertical stabiliser. It also had leading edge slots in the wings. During the rebuilding of the HU-16A to 'B' standards, a 70-inch section was added to each wing outboard of the engines. Other modifications included 30-inch wingtips and a larger rudder and vertical fin. During the time of the upgrade of these ships, only 21 new 'B' model aircraft were built. Sixteen of these were upgraded with supercharged Wright R-1820-82 engines. However, none of these were supplied to the U.S. military, with ten being delivered to the Royal Canadian Air Force,



N44RD, a former U.S. Navy HU-16C modified to an HU-16RD, has set the standard for all Albatross restorations. (Patrick Dean)

Now converted to a G-111 transport, N117FB represents one of only 16 aircraft built with supercharged 1,525hp engines. (Patrick Dean)







*N741S is one of many Grumman Albatrosses rescued and brought back to life by Dennis Buehn.*

*(Patrick Dean)*

and the remaining six to the Japan Maritime Self Defense Force. Another feature of note is that after the first six production ships, the pontoons served as 200-gallon fuel tanks. However, they are restricted to 100 gallons during water landings.

My first encounter with the Albatross was over forty years ago with the 305th. The unit was in transition from the SA-16 to the HC-97. Since I was interested in four-engine heavy lift they were a passing thought. Consequently, I mistakenly forgot about them and never studied the history and current disposition of the remaining HU-16 Albatross fleet. I began to take notice of the Albatross being rescued from the bone-yard and returning to private service when I photographed N3HU in Hawaii a few years ago. This 1953-build short wing former Navy aircraft (c/n G-281) was restored to its Navy colours. Later in Cartersville, Georgia, I spotted N695S (c/n 444). It had served with the German Navy as SC+101 and RE-501 before returning to the United States to serve with the Smithsonian Marine Research Department. Also present at Cartersville was N8497N (c/n G-087), a most unusual and rare SHU-16B anti-submarine model. This strange bird had served with the Chilean Air Force and was equipped with a huge radome and Magnetic Anomaly Detector (MAD) boom. Its strange appearance renewed my interest over forty years after my first introduction.



*Bill da Silva's immaculate HU-16C N7025N at Boulder City in U.S. Navy colours with clear radome.*

*(Patrick Dean)*

*Alaska Airlines' pilot Terry Smith owns HU-16C N116AG "Aleutian Goose".*

*(Patrick Dean)*



## MYSTERY SHIP AT KINGMAN

On a recent trip across America, I stopped at Kingman, Arizona, where I saw several more examples undergoing maintenance and repainting at Straube's Aircraft Services. The paint shop had just completed N121FB (c/n G-339) for Billabong Hawaii. This ship is a real puzzler with dates and options that do not fit the historical pattern. It was built for the U.S. Air Force with tail number 51-7249, indicating it was originally built in 1951. However, most sources suggest that it was not built until 1954. Even more curious is the fact that it is fitted with 1,525hp Wright R-1820-82 supercharged engines that were only installed on 16 of the 21 HU-16Bs, which were newly manufactured ships rather than rebuilds. All other HU-16Bs were converted from earlier models. Furthermore it shows on the U.S. Coast Guard inventory as an UF-1G. It eventually became one of the thirteen ships converted to G-111 civilian air carrier standard. At this time it is not clear when it was equipped with the more powerful R-1820-82 engines.

Another Albatross present at Kingman, in primer, was HU-16E N29853 (c/n G-335). This former U.S. Air Force example was transferred to the Coast Guard as UF-1G and redesignated HU-16E in 1962. It is currently owned by John Schoffner and is being reconditioned and repainted by Straube's Aircraft at Kingman for a new lease operator.

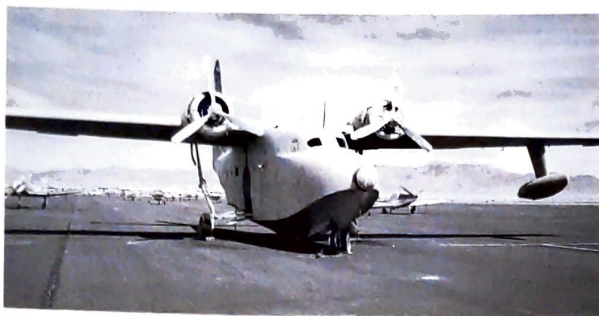
After seeing these ships it occurred to me that I should consider attending the Albatross School and Seminar scheduled for the first week of February at Boulder City, Lake Mead, Nevada. I spent several weeks making numerous phone calls and sending e-mails attempting to obtain information on the Albatross Fly-in. I was beginning to wonder if it was worth the effort. I had received a flyer stating that all types were invited to Lake Mead and Boulder City Airport for type ratings, seaplane ratings and Part 61.58 recurrency check rides.



*Reid Dennis demonstrates handling with the super-modified wing. (PD)*

It seemed that each person I contacted had no idea what I was talking about, or referred me to someone else. Finally, in desperation on February 3 my colleague and I decided to drive to the Boulder City Airport in the hope of at least a glimpse of one of the large amphibians. As we turned off the main highway and headed down the hill I could see the wing of an Albatross off to the right. A few moments later I saw a floatplane take off. Maybe the day would not be wasted after all.





N29853, a former USAF and US Coast Guard example, is now owned by John Schoffner and is seen at Kingman awaiting painting. (Patrick Dean)

## ALBATROSS MECCA

As we drove past the FBO and hangars, several HU-16s came into sight. "Eureka!" We had picked a good day. We parked and walked into the hangar where a group of owners and crew were having sandwiches. The friendly group welcomed us and we were invited to look at the aircraft and take photographs. Parked next to the hangar in bare metal was N7141S. This is owned by Dennis Buehn of Carson City, and was flying a most appropriate American flag from a mast above the cockpit. This HU-16B (c/n G-099, formerly a SA-16A) was the oldest Albatross at Boulder City. It was built in late 1950 for the U.S. Air Force and received the tail number 51-025. While in air force service it was one of 241 aircraft returned to Grumman for upgrade to 'B' specification. It remained at Boulder City after the Fly-in until March 15 2006 for refurbishment and sound-proofing of the cabin interior. Dennis is recognised for rescuing many HU-16s from the bone-yard. On the other side of the hangar were four more examples. We stopped and talked to the crews and engineers performing maintenance, and learned that several aircraft would be going out for check rides later in the day.

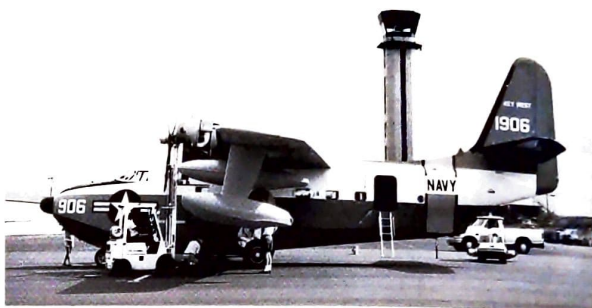
Standing alone on the gravel ramp was N44RD (c/n G-405), a beautiful blue and white Albatross without the radome indicating it was an early model. We inspected the aircraft and began talking with Dave Cummings, who asked us if we also had an Albatross. My colleague and I said we wished, but we were there to admire the fleet. Dave told us he currently maintained the only Howard 500 in service. As the conversation progressed I told him that I had completed a manuscript on the fleet history of the ATL-98 Carvair, and he responded by saying you must know McSwiggan and Frank Moss. Both of them have owned Carvairs and flown many 'proliners'. He said, "Let me get Frank on the phone", as he dialed his cell. Still believing that Cummings was associated with this beautiful Albatross, I began to ask questions. He told me that he was restoring an HU-16B in Minnesota for Tony Phillip. It was a former U.S. Air Force SA-16B (c/n G-243) now registered N4478E. He was waiting for the owner of N44RD in order to take some photographs inside the cockpit and ask some technical questions. Reid Dennis walked up and graciously asked if we would like to come on board. We were about to realise that Reid has set the standard for Albatross restorations.

Reid Dennis bought his first aircraft in 1964, and is an accomplished jet pilot and rather an aviation legend himself. He also has a 1946-vintage Grumman Mallard, which he has owned for 32 years, and two Citation Encores. He is an electrical engineer, an historian, and says that he is a mechanical engineer at heart. Reid told us that this aircraft was originally a U.S. Navy HU-16C manufactured in 1955, and which had been stored in Tucson. It took seven years to rebuild, and began as a short-wing model with an 80-foot wingspan. He wanted an aircraft with improved handling characteristics, but did not want the limited spar life of the 96-foot wing of the 'B' model. He began adding parts to the wing, and the entire project took on a life of its own. "We ended up with the droop leading edge cuff of the later model, which added 10 inches to the front of the wing. Then we gained 30 inches on each side by adding the longer wingtips." He also added the five-foot ailerons and the 18-inch higher vertical stabiliser, longer rudder and 12-inch tailplane tips of the later series. The result was an 86.6 foot wingspan, and an increase of 9.5 per cent in wing area, which give it the best water handling characteristics of any Albatross built. Airflow fences were added on top of the wings as well as high capacity fuel dumps on the underside outboard of the outer wing-mating joint. The cockpit and panel were updated with modern avionics, including a Universal flight management system similar to the one in his Citation Encore. The engines are Wright R-1820 C9HE series.

Reid explained that the exhausts are routed over the top of the wing and are modified for noise reduction and cabin comfort. You have to be careful as the exhaust systems are critical on the Albatross. You pull about 50-inches on take-off, and then level at 36. You can burn a hole in a stack fast, then it burns through the cowlings and you are in trouble.

His Albatross is topped off with a beautiful passenger cabin reminiscent of a vintage yacht. A teak and leather finish complement a galley, dining booth, six first-class passenger seats and a lavatory. The wing and airframe modifications were so extensive that Reid had to apply for a new 'one-of-a-kind' FAA type certificate. Since it is halfway between an 'A' and 'B' model, it is the only Albatross that has been redesignated HU-16RD. Yes, that is correct, 'RD' for Reid Dennis! In 1997, with major sponsorship from Pratt & Whitney, and support from Jeppesen, Universal Avionics and the Smithsonian Institution, the Albatross flew as the photo plane and support ship following a vintage Lockheed Electra around the world duplicating the ill-fated 1937 attempt by Amelia Earhart. Commanded by Reid, the Albatross flight took ten weeks and 195 flying hours to complete, visiting 30 cities in 20 countries on six continents.

The HU-16RD is certified to 15,000 feet, but during the entire



N3HU, former U.S. Navy UF-1 short-wing C model that first attracted my interest in the aircraft. (Patrick Dean)

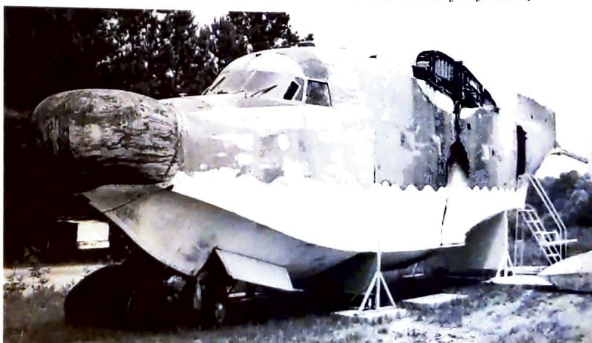
circumnavigation it never flew above 7,000 feet. Although the HU-16A has a normal take-off weight of 27,500lb, and the HU-16B 30,350lb, with a maximum of 37,500lb, under one extreme circumstance this HU-16RD actually took off at a gross weight of 39,500lb. Apparently, the aircraft loves dense air, and when heavily laden flies most comfortably between 1,500 and 2,500 feet at 128 to 132 knots. Reid commented that on long over-water segments, he would climb to 1,500 feet, peg the airspeed at best lift over drag, set the power at minimum to hold altitude and then sit back. "The beauty of flying an amphibian is we can avoid landing in salt water if there is an airfield nearby. The increased risk of corrosion is too much of a problem. If necessary, we could land in the sea, but so far we have confined all our water landings to fresh water. When I'm in the cockpit, there is none of this, 'You're the boss stuff'. Safety is our number one concern. We always fly dual cockpit and keep each other's skills sharp. I just love to fly. Jets are nice, but you get there too quick. I can get lots of hours in an Albatross because it is slow."

## ALBATROSS DEMONSTRATION FLIGHT

Reid stood up and said, "Let's take a ride!" To our surprise, he and co-pilot Andy Macfie pulled up the ladder, closed the hatch and climbed into the cockpit. They started number one as N7973B, an HU-16E (c/n G-407), and N20861, an HU-16D (c/n G-425), taxied by. As the other two took off, Reid turned number two. Once the checklist had been completed, Reid taxied out. We rolled out and climbed to 1,400 feet. It flew so smoothly and was so stable that it was almost like we were not moving. It handled well along the Colorado River and through several canyons to the Arizona side of Lake Mead. We started letting down in an area where the water was as smooth as glass. As it touched down, the only indication we were on the water was the spray going by the window. Macfie said to Reid, "Do you want to slow down or just keep her on the step?" Reid chose to keep her there as we skimmed along the water, then he advanced the throttles and we lifted off.

Climbing back out and flying around for a few more minutes,

Former Chilean Air Force HU-16B/ASW N8497N was one of 37 examples built with an anti-submarine radome and MAD-boom for friendly nations.





we spotted the other two HU-16s alighting about two miles away. We were commenting on the stability and handling of the first landing as Reid started a second letdown. He decided to demonstrate the handling in an area where the wind was blowing, and there was chop on the water. Once again she settled down, this time with two slight bumps. In spite of the chop, again the landing was smooth. Reid kept her on the step once again, and then lifted back off. Just when I thought that the afternoon couldn't get any better, Dave Cummings came back and offered me the seat in the cockpit behind Reid.

An hour or so into the flight, having worked our way over into Arizona to a fairly remote area, Reid decided to land and stop. Macfie was instructed to look around for any boats or the other two Albatrosses, and as we started down we saw something ahead. Reid asked if it was a boat or one of the other aircraft. Macfie thought it was a boat, but that it looked big. "Let's hope it's not a Martin Mars coming towards us!" We all laughed and within seconds the boat turned in the other direction and we sat down on the water slippery smooth. Taxying into a cove, Reid turned the Albatross around in a tight turn and prepared to take-off. Once again she lifted off with the only sense of motion being the water spray off the pontoons. Once we levelled off at 1,400 feet, Reid decided to head for home. We started back through the canyons, admiring the incredible scenery, passing within half a mile of the western side of the Boulder Dam crossing back into Nevada. As we turned on the downwind leg to runway 9R Boulder City Airport the airspeed showed 125 mph, and then as we came over the threshold a crosswind drifted the Albatross a little off to the left. Reid recovered nicely as Macfie called out the airspeed down to a 65 mph touchdown. We were in awe of the stability, handling and response that the modified wing gave the old bird. There had been a few people with cameras as we crossed the threshold, and Reid jokingly commented that he hoped no one had photographed his crosswind landing.

One could not dream or ask for a more exciting adventure. Dave Cummings said, "Didn't I tell you it was going to be a great afternoon?" We talked for a few more minutes before climbing down the ladder. A small crowd had gathered as we said our goodbyes and expressed our appreciation to Reid Dennis and his co-pilot Andy Macfie for their exceedingly generous hospitality. We took pictures with Reid as he pointed out the wing modifications, and he then walked with us to the other aircraft describing the different models and wing configurations.



Former German Navy and Smithsonian Research HU-16B N695S at Cartersville, Georgia.  
(Patrick Dean)

N117FB (c/n G-461) is a very unique Albatross. Originally built in 1961 as an HU-16B, it received the U.S. Navy serial 148326 for administration purposes only. This ship is one of only 21 built new as an HU-16B, with all other variants being converted from 'A' models. In addition, it is one of only 16 fitted with 1,525 hp Wright R-1820-82 engines. These have a two-speed supercharger and a different ignition system. The engine cowlings appear fat with air intake scoops on top of the nacelles. This aircraft was transferred to the Japan Maritime Self Defense Force as JMSDF 9053, and served with them until purchased by Resorts International, the parent company of Chalk's. Registered as N3479F it was converted to G-111 transport standards with the forward emergency exits. However, Chalk's soon discovered that the Albatross was not economically viable and most examples were stored. It is now flying again as N117FB, and approved for standard transport operations. All the other ships on hand at Boulder City were approved for Aerial Survey or Forestry.

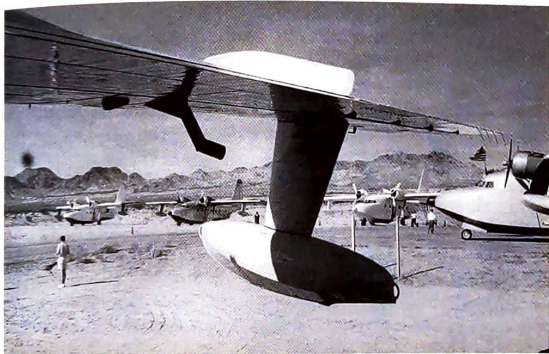
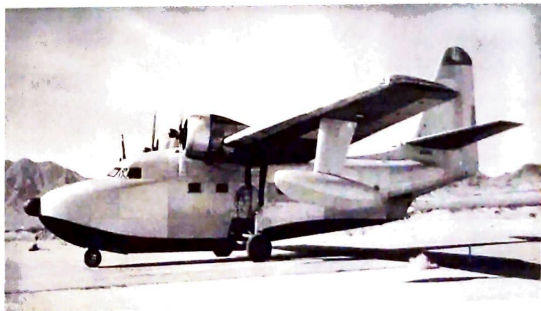
Only one HU-16D, N20861 (c/n G-425) was present. Formerly a short-wing U.S. Navy UF-1, it was returned to Grumman and reworked as a long-wing 'D' model. After navy service, it was stored at AMARC Tucson until 1988. It was originally intended for a civilian role with the Smithsonian Marine Laboratory. However, the plans changed, and it is now owned by Upper Limit.

The ships at the Boulder City Fly-in represented excellent examples of the different variants of HU-16s. They included A, B, C, D and E models of the Air Force, Navy and Coast Guard, a former Triphibian, a civilian G-111, one with 1,525hp supercharged engines, and the only HU-16RD. The only example not present was the SHU-16B anti-submarine model with bulbous radome and MAD boom. Just by chance, I had recently photographed an example at Cartersville, namely N8497N (c/n G-087). Originally built for the USAF as 51-014, it was transferred to Chile and converted to SHU-16B status on October 2 1963. Only 31 SHU-16B/ASD models were built for friendly foreign air arms.

Not all of the rescued Albatross airframes have been so fortunate. While researching the HU-16, I learned that N7025H, one of the aircraft saved and restored by Dennis Buehn was repainted by Straube's with BuccanAer titling was tragically lost in a fatal accident near Fort Pierce in Florida in September 2003. Whilst engaged on a training flight, both engines failed. The subsequent investigation revealed that the fuel selector had been placed in the "Off" position, thereby starving both engines.

Approximately 141 Albatross airframes exist in some form in museums or bone-yards. Only twelve of these are considered complete and capable of being returned to airworthy condition. Less than 30 examples of the 464 production ships are currently flying. Only a few days before the Boulder City event I photographed three examples. In one day I saw one third of the world's airworthy fleet. We are indebted to all the Albatross owners, and the hospitality of Reid Dennis, Andy Macfie, Dave Cummings, Dennis Buehn and Rick Straube who made this incredible experience possible.

N20861 was originally built for the U.S. Navy as an UF-1. It was returned to Grumman for conversion to HU-16D with extended wings.



The modified wing of Reid Dennis' Albatross HU-16RD N44RD showing the airflow fence and under-wing fuel dumps. Several of the participants at the Boulder City Fly-in are also visible in the background.

#### OTHER ALBATROSSES PRESENT AT BOULDER CITY

A 1955 short wing model owned by Alaska Airlines pilot Terry Smith was present. This HU-16C registered N116AG (c/n G-214) is named "Aleutian Goose", and holds the distinction of being assigned to the USAF (51-7164), U.S. Navy (142429, formerly an UF-1L) and the U.S. Coast Guard as an UF-1G. In addition, it was once fitted with the Triphibian LU-16C snow-ski configuration. Grumman developed skis that fitted on each pontoon and along the middle of the fuselage for Arctic flying. Parked alongside was N7025N (c/n G-409), another 1955 model now owned by Bill da Silva of Tecumseh, Michigan. This HU-16C short-wing model is finished in U.S. Navy colours with a clear radome. It was never upgraded to 'D' standard, and served with the U.S. Navy (141262) until surplused and stored. It is now operated under the title of Sea Air Adventures. A former Chalk's International trainer, N7973B (c/n G-407) is owned by Paul Rivas and was sporting new paint with blue and yellow trim, which had been applied at Kingman. This 1955-vintage former UF-1G served with the U.S. Coast Guard and was re-designated HU-16E in 1962. Although later owned by Chalk's it was never converted to G-111 standard. The forward emergency exits were not installed since it was only used for pilot training.