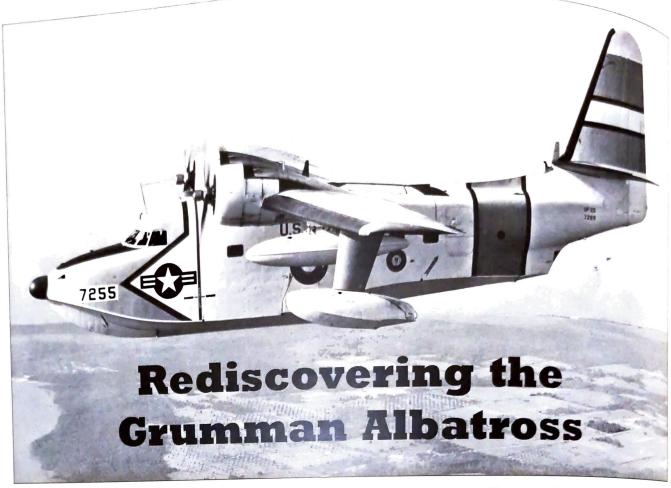


Great Aviation History

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by Patrick Dean

Unless otherwise noted, all photographs are courtesy of the author.

The family of Grumman amphibians has come full circle from modest beginnings as a private transport. After outstanding military service many are now being restored by civilian owners who want more than just a personal aircraft. The G-64 Albatross, largest in the series of Grumman twin amphibians, and the G-73 Mallard are returning as impressive flying yachts. Of the 92 G-64 – and follow-on G-l11 – airframes currently registered in America, over 30 Albatross and an equal number of Mallards, have been meticulously restored and are currently active in the Unites States. In addition 141 of the 464 [plus two XJR2F-1 prototypes] Albatross airframes produced between 1948 and 1961 still exist in some form in museums and bone yards. With the new popularity and interest another dozen airframes are complete enough to possibly be returned to airworthy status.

Grumman has a long established record for building reliable airframes for naval service. To appreciate the quality and reliability of these amphibians we review the Grumman Seaplane family – Goose, Widgeon, Mallard. Albatross – from the beginning.

Leroy Grumman was commissioned by a group of wealthy industrialists - namely Henry Morgan, Marshall Field, E.R Harriman, Robert McCormick, and Wilton Lloyd-Smith – in In military use many Grumman Albatross airframes were swapped between services. This U. S. Coast Guard UF-2G. Serial Number (S/N) 7255 - started out with the U.S. Air Force as an SA-16B - S/N 51-7255. Note that the Coast Guard simply shortened the Air Force S/N. Please also see the color photograph on the outside back cover. Photo: U.S. Navy

the mid-1930s to build ten amphibious aircraft for private commuter use. The design called for an aircraft with retractable gear that could take off from the private airfields of their Long Island estates and land in the water near the New York financial district.

G-21 Goose (Length 38'6", Span 49'0'')

Grumman responded with its first monoplane design, the rugged all metal G-21 Goose light amphibian powered by two 450-horsepower Pratt & Whitney R-985 Wasp Jr. radial engines. At \$68,000 it was quite expensive compared to other aircraft of the time. The prototype first flew on 29 May 1937. The Grumman Goose was quickly known as the "Flying Yacht" of Manhattan millionaires, with a plush cabin fitted with a bar and lavatory. The success of the Goose prompted contracts with the United States Army Air Corps (USAAC) resulting in the Army OA-9 and OA-13, which were essential tially the civilian version converted for the war effort, as well as the U.S. Navy's JRF. Even so the first military order was actually with the Royal Canadian Air Force (RCAF), which took delivery in June 1938. It eventually saw service with the U.S. Coast Guard (USCG) and Royal Air Force (RAF), where it received the name Goose I. Ultimately 345 were built and



approximately 60 are still airworthy today making it one of the longest-lived amphibians of all time.

G-44 Widgeon and Gosling (Length 31' 1", Span 40'0'')

The Goose was followed by the G-44 Widgeon, smallest of Grumman amphibians. The first prototype flew on 28 June 1940. It was originally designed for the civilian market but soon entered the war effort for patrol work as the U.S. Navy and USCG under the designation J4F and with the USAAC as the OA-14. It also served with the British Royal Navy where it was named the Gosling I.

Between 1941 and 1955 Grumman produce a total of 276 Widgeons, including 176 ordered by the military. After World War Two it was re-designated G-44A, which included an upgraded hull and reconfigured for six seats for civilian use. The last Grumman Widgeon was delivered on 13 January 1949. An additionally 41 were built under license in France by the Societe de Constructions Aero-Navales, as the SCAN-30, with construction completed in 1955.

Originally fitted with two 200-horsepower Ranger engines and fixed pitch wooden props it was noticeably underpowered. The props were soon replaced with metal units, which provided some improvement.

Of the 317 produced approximately 32 are flying worldwide. In the 1960s McKinnon Enterprises offered upgrade Super Widgeon conversions with 280-horsepower Lycoming GO-480-BID engines with three-bladed props. Performance was increased with improved fuel economy and range. Extra fuel tanks were fitted and retractable wingtip floats were an option. Approximately 70 were converted to Super Widgeons.

G-73 Mallard (Length 48' 4", Span 66' 8")

The G-73 Mallard was designed as a post war commercial airliner, but only 59 were built between 1946 and 1951. It was much more sophisticated than the previous Grumman amphibians featuring stressed skin, a two step hull,



Top: As mentioned in the text, the majority of U.S. Navy aircraft were not assigned to a squadron, but rather to individual naval stations. Seen here is HU-16C - Bureau Number (BuNo) 131906 - assigned to Naval Air Station Key West, Florida, October 1967. This aircraft formerly carried the designation UF-1. Photo: U.S. Navy **Above:** Originally ordered as an SA-16A, this Albatross was completed as an SA-16B - S/N 51-7219 - for the U.S. Air Force. It is seen here on loan to Pan American for use by the Department of the Interior to provide air service for a variety of U.S. Trust Territories in the western Pacific.

wingtip fuel tanks and tricycle gear, which previous models did not have. It first flew on 30 April 1946 and went to service later that year.

The Mallard was designed as a ten passenger regional airliner, but corporations purchased the majority. Only a few commercial carriers such as Pacific Western in Canada and Tahiti-Hawaiian operated Mallards. It is reported that the Aga Khan purchased a number of them for use in Europe. The Egyptian Air Force purchased two and had them plushed-out for King Farouk. After Farouk was overthrown, Abdel Nasser used them as a personal transport. Thirty of the original 59 produced are registered in the United States today.

A number of Mallards have been upgraded to 17 passenger turbo-prop versions – the G-73T – powered by the Pratt &

Whitney Canada PT-6A-27 engine. One large operator of the G-73T was Chalk's International Airlines, of Miami, Florida, which unfortunately had its service suspended soon after a 19 December 2005, crash of one of its G-73T Mallards near Miami Beach, Florida. All 18 passengers and crew of two perished when the right wing broke off. Chalk's certificate was revoked on 30 September 2007.



G-64 Albatross (Short-wing Model: Length 60'8", Span 80'8'' & Long-wing Model: Length 62' 10", Span 96' 8")

The Albatross is the largest and is considered by many the most desired of the series of Grumman amphibians. The design, developed for the military, is based on the Mallard and its predecessors. The hull, up to 62 feet, 10 inches in length and featuring a deep-V cross section, was structured for landing and takeoff in 4-foot seas, with the capability of takeoff in 8 to10-foot seas with Jet Assisted Take Off (JATO) assist.

Design Number 64 was initiated in April 1944, by the U. S. Navy as a replacement for the JRF. Under the designation XJR2F-1, the first of two prototypes first flew on 1 October 1947, and originally bore the name Pelican. When the U. S. Air Force (USAF) emerged as a separate service on 18 September 1947, it was assigned the mission of air rescue. The new Albatross that would take to the air less than one month later was an ideal aircraft for this mission. Thus, although amphibian aircraft tend to be associated with the U. S. Navy, the new U. S. Air Force would be a major operator of the Albatross.

The Albatross was originally assigned to the USAF Air Rescue Service as the SA-16A, a designation changed to HU-16A in 1962. With a burn of 100 gallon per hour, and a total fuel capacity of nearly 1,700 gallons of fuel – 676 gallons in the mains, 415 gallons in the floats, and 600 gallons in twin drop tanks – and 58 gallons of oil, an Albatross can easily fly 14-plus hour missions. The SA-16A, and later SA-16B long-wing model, set an impressive record in Korea and later in Vietnam, rescuing 66 and 70 downed airmen respectively. Between 1956 and 1971 Air National Guard Commando Groups were assigned the Albatross – SA-16As and SA-16Bs – for covert operations and Special Forces extraction. All were painted black, some solid and others with a blue or white bottom with a wave pattern along the hull at the waterline. The last USAF Albatross was retired



Top: One of the lesser known models of the Grumman Albatross was the SA-16B/ASW, later re-designated as SHU-16B. While most Albatross airframes were built strictly for utility, the SA-16B/ASW was optimized for anti submarine warfare (ASW). The large nose radome housed a surface search radar, while mounted in the tail was a Magnetic Anomaly Detector (MAD) boom, both seen here. Although the U. S. Navy was interested in the SA-16B/ASW, ultimately all went to foreign air arms. This airframe is N8497N and awaiting restoration at Cartersville, Georgia.

Above: A period photograph of a Grumman SA-16A Albatross - S/N 51-7150 - operated by the U.S. Air Force.

in July 1973, having set a world altitude record of 32,883 feet for amphibian aircraft.

The USCG operated the UF-1G, and later the UF-2G longwing version for long-range open ocean search and rescue (SAR). The U.S. Navy also operated the Albatross under the designation UF-1 and UF-2 for SAR duties, as well as general logistics support for naval air stations worldwide. The last Navy Albatross flew on 13 August 1976, with the mission terminating at the National Museum of Naval Aviation, in Pensacola.

It is of note that the Department of the Interior comman-Continued on Page 26



Grumman UF-1 Albatross - BuNo 141288. Photo: U.S. Navy

The Grumman Albatross - By The Numbers

Like many aircraft, the Grumman Albatross was built in several variants and flown by several different services. Throw in the Department of Defense designation change that occurred in September 1962, and one can get a bit confused as to exactly which variant is being discussed.

Of course, each service designated their aircraft according to their specific guidelines. However, in a more broad sense, the Albatross can be grouped into two main variants, namely the short wing -80.0 feet, and the long wing - 96.8 feet.

The chart below lists, in generally chronological order, the development of the Grumman Albatross. It should be noted that a large number of airframes were sold to dozens of different foreign air arms, and often carried the various designations of their home country.

Designation XJR2F-1 PF-1 SA-16A SA-16B	Post-1962 N/A N/A HU-16A HU-16B	Service USN USN USAF USAF	Wing SW SW SW LW	Notes Called the Pelican Patrol A/C, not built
SA-16B/ASW UF-1	SHU-16B HU-16C	N/A USN	LW SW	Foreign Military
UF-1G UF-1L UF-1T UF-2 UF-2G UF-2S UF-2S UF-XS PF-1A CSR-110	N/A LU-16C TU-16C HU-16D HU-16E SHU-16B N/A N/A N/A	USCG USN (VXE-6) USN USN USCG USN JMSDF USN/USAF RCAF	SW SW LW LW LW N/A SW LW	Most upgraded to UF-2G Originally ordered by USAF Navigation Trainers Upgraded UF-1G USN version of SHU-16B Test airframe for SM PS-1 Built as SA-16A for USAF Grumman Model G-231
Abbreviations A/C – Aircraft ASW – AntiSubmarine Warfare Civ. – Civilian FAA – U.S. Federal Aviation Administration JMSDF – Japan Maritime Self Defense Force LW – Long Wing		SM SM US US US	LW FAA certified airliner RCAF – Royal Canadian Air Force SM – Shin Meiwa SW – Short Wing USAF – United States Air Force USCG – United States Coast Guard USN – United States Navy VXE-6 – USN Antarctic Development Squadron	

deered three USAF SA-16Bs in the 1960s, to establish the Trust Territory Airlines in the Pacific. They were first operated by Pan American Airways, and later by Continental Airlines' Air Micronesia – Air Mike. These aircraft were flown between Guam, Palau, Micronesia, the Northern Marianas Islands, and points on the Marshall Islands. This service operated until 1970 when island land runways were completed.

Grumman obtained Federal Aviation Administration (FAA) certification to upgrade 36 Albatross G-64s to the commercial 28-passenger G-111, but only 13 were completed. Merv Griffin's Resorts International purchased all 13 G-111 conversions for Chalk's International Airlines



based in Miami. The extensive conversion included a zerotimed airframe, dual engine fire suppression systems, auto feather props, stainless steel oil tanks and titanium wing spar caps, and extra emergency exits. The G-111 was only in service a few years when Chalk's began withdrawing their fleet for economic reason, and parking them in the desert. Donald Trump gained financial control of the carrier, but the G-111s were not returned to service, opting instead for Grumman Turbo Mallards.

Beginning with the Goose and ending with the Albatross, the Grumman amphibians have proven their worth and longevity. They were created in 1937 as a flying yacht, and today those individuals fortunate enough to be able to own, restore and operate them have returned the Albatross to the similar purpose.

Rediscovering the Albatross Today

My first encounter with the Albatross came in the 1960s, while serving in the USAF and assigned Temporary Duty to the 305th Air Sea Rescue in Michigan. The unit was phasing out the Albatross for the Boeing HC-97. The Albatross has a max take-off gross of 37,500 pounds, but my interest was in heavy lift and the larger Stratocruiser, so the Grumman amphibian passed into memory.

Some years ago while working in Maui I was fortunate enough to photograph Richard Sugden's HU-16C – N3HU. My interest in amphibians was still not ignited until I saw N695S, an HU-16B, at Cartersville, Georgia, and realized how many were privately owned. This 1958 model originally received USN Bureau Number (BuNo) 146426 for administrative purposes only, as it actually served with the German Navy, where it carried the Serial Number (S/N) SC+101 and RE+501. After returning to U.S. as N13048, it was later reregistered as N695S, becoming the second Albatross oper-



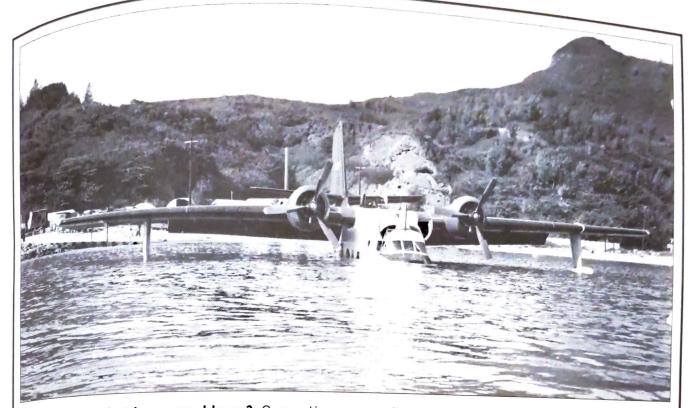
Top: Seen at Cartersville, Georgia, is a former German Navy HU-16B, now registered as N695S. This Albatross was operated for a time by the Smithsonian Institution. **Above:** Built as a standard SA-16A for the U. S. Air Force.

S/N 51-025, this Albatross was upgraded to SA-16B specifications. It is currently registered as N44HQ, and is operated by the ROW 44 company.

ated by the Smithsonian Institution before eventually going to Qmni Engineering.

Also at Cartersville was N8497N – USAF S/N 51-014. This truly rare and strange looking bird is a radically different Albatross, and carried the designation SA-16B/ASW. The airframe was disassembled at the time, but the huge radome and extendable Magnetic Anomaly Detector (MAD) boom were intact and clearly visible. This unique Albatross served with the Chilean Air Force, and is one of 37 converted to the antisubmarine version in 1963, intended for friendly foreign military use.

A few years ago, while crossing the U.S. mainland, I stopped



Hmmm...So what happened here? Some time ago, while doing research in the photo archives at the National Museum of Naval Aviation, we happened upon this image. About the only information noted on the back of the photo was that the image was taken in December 1961, at or near Naval Station Kwajalein. The aircraft is Grumman UF-1 Albatross - BuNo 141272. If anybody has any further information, please drop us a line - thanks.

at Kingman, Arizona, where several Albatross airframes were undergoing maintenance at Straube Aircraft Services. N121FB – had just been completed for Billabong, a sports wear company based in Hawaii. This airframe began service with the USAF and later USCG, before being purchased by Resorts International for Chalk's International. Built in 1954, it was converted to G-111 airline standards, and is equipped with two supercharged 1,525-horsepower Wright R-1820-82 engines. These engines are easily identified by the fat engine cowlings, with intake scoops on top. Billabong has also operated N7973B, which is owned by Paul Rivas. It has the nonsupercharged 1,425-horsepower R-1820-76 engines.

Also at Kingman was N29853. This 1951 model began service with the Air Force and ended its military service with the Coast Guard as an HU-16E. The primer coat had just been completed prior to painting in Red Bull promotional colors.

The Albatross Seminar and Fly-in

After Kingman, I attend the annual Albatross Seminar and Fly-in at Boulder City/Lake Mead, Nevada. From a purely administrative standpoint, this annual event is held to provide a central point for FAA re-currency check rides and issuance of aircraft type ratings. However, the fly-in is a perfect opportunity for Albatross owners to show off their hardware.

The Boulder City event is impressive. One of the oldest Albatross attending the annual event on a regular basis was

N7141S, a 1950 SA-16B – USAF S/N 51-025. Originally carrying the designation SA-16A, this Albatross came off the assembly line with the 80-foot wingspan, but was later returned to Grumman for 96-foot wing upgrade, making it a 'B' Model. Eventually 241 short-wing A Models were converted to long-wing B Models. At the time, this example was owned by Dennis Buehn, of American Warbirds. Buehn is credited with having the first privately owned Albatross in 1985, and is known for having rescued more airframes from the bone yard and converting them for private service than anyone else. As of this writing this Albatross has found a new owner with the ROW 44 Company as a test bed for in-flight Broadband WI-FI. It sports a sharp new livery as N44HQ, and has been fitted with the supercharged 1.525 horsepower R-1820-82 engines.

N44RD

The quintessential Albatross restoration has been accomplished by Reid Dennis on N44RD. This is an outstanding and possibly the most highly modified Albatross flying. At the fly-in, Reid graciously invited me on board N44RD, where it was soon obvious that he has set the benchmark for Albatross restoration as a personal aircraft.

Reid Dennis bought his first aircraft in 1964, and is an accomplished jet pilot and a bit of an aviation legend himself. He also owns a 1946 Grumman Mallard, which he has owned for 32 years, a Cessna 182, a Cessna T206H, plus two Citation Encores. He is an electrical engineer, a historian and one of Silicon Valley's leading venture capitalist, but says he is a mechanical engineer at heart.

The N44RD airframe was originally a 1955vintage UF-1 shortwing that had been in storage at Tucson, Arizona. It was never upgraded to UF-2 status, so it did not have the 96-foot wing or the radome nose. Reid ac-

quired this airframe with the intent of incorporating various modifications to improve handling on the water, as well as in the air. The project became so involved it took seven years to rebuild. He wanted an aircraft with improved characteristics but did not want the limitations that is applied to the 96-foot longwing. These long-wing models had a 70inch extension in each wing outboard of the nacelles and cambered leading edges cuffs replacing the wing slots. Unfortunately, these extensions, while improving the Albatross' performance, had a reduced spar life.

Reid said he began adding parts to the wing, and the entire project took on a life of its own. He ended up adding the droop leading edge cuffs of the later model, which added 10-inches to the

front of the wing. Then the Albatross' wing gained 30 inches on each side by adding the longer wingtips. He also added the five-foot ailerons, as well as airflow fences on top of the wings. The overall result was a unique 86.6-foot wingspan, and an attendant increase of 9.5 percent in wing area. The empennage was modified with an 18-inch taller vertical stabilizer and larger rudder, and 12-inch wider horizontal stabilizer tips found on the later model Albatross. This gives N44RD some of the best handling characteristics of any Albatross built.

The cockpit and panel were completely updated and extensively modified with the addition of a universal flight management system (FMS), master caution and annunciator panels, and a Honeywell Analog Flight Control System, including a single AP-200 Autopilot.

The engines are supercharged Wright R-1820 C9HE series. Reid said the exhausts, which are now routed over the top of





Top: N44RD started out as a standard UF-1, however the current owner has incorporated a number of performance upgrades to produce a one-of-a-kind Albatross.

Above: The main cabin of N44RD certainly reminds one of being on board a well appointed yacht.

Opposite Page: Going along with the high standard of this restoration, the cockpit of N44RD is a mixture of the old and the new.

the wing, were modified for noise reduction. This, and the fact that he cabin has been double insulated for comfort, makes this probably the quietest Albatross in service. The R-1820s originally called for 115/145-grade fuel and could pull 51.5-inches of manifold air pressure (MAP) on take-off. However, today because of lack of availability, operators must use 100-grade fuel, and should not pull more than 46-inches MAP. He said you have to be careful because the exhaust systems are critical on this aircraft. You could pull about 50-inches MAP on takeoff then level off at 36-inches, but you can burn a hole in a stack fast.

burn a note in a succertain is topped off Reid's Albatross restoration is topped off with a beautiful classic yacht passenger cabin finished in teak and leather. It is complete with galley, dinning booth, six first class passenger seats and lavatory with shower.

The wing and airframe modifications were so extensive that Reid had to apply for a new, one-of-a-kind FAA aircraft type certificate, resulting in the designation HU-16RD. Since it is halfway between an A and B model, Reid's Albatross is the only aircraft to carry the designation HU-16RD. Yes, that is correct – 'RD' for Reid Dennis.

In 1997, with major sponsorship from Pratt & Whitney, support of Jeppesen, Universal Avionics, and the Smithsonian Institution, N44RD became the first Albatross to circumnavigate the globe. It served as the photo and support plane accompanying Texas aviator Linda Finch on her re-creation of Amelia Earhart's last flight in a Lockheed 10E. Ms. Finch's flight was filmed from Reid's Albatross, which also stood by in the event she needed help over water. Reid, who is now 74, said it allowed him to live his childhood dream. He always wanted to fly a Pan Am Clipper around the world, but never got the opportunity.

The HU-16RD is certified to 15,000 feet, but during the entire 26,347-mile circumnavigation they never flew above 7,000.

Reid said, the aircraft loves dense air and when heavily loaded flies most comfortable between 1,500 and 2,500 feet at 128 to 132 knots. He said that on the long over water segments we would take off, climb to 1,500 feet, peg the airspeed at best lift over drag, set the power at minimum to hold altitude and sit back. Reid also noted that the beauty of flying an amphibian over a seaplane is that one can avoid landing in salt water if there is an airfield nearby. The increased risk of salt-water corrosion is too much of a problem and should be avoided if possible. So he has confined all water landings to fresh water.

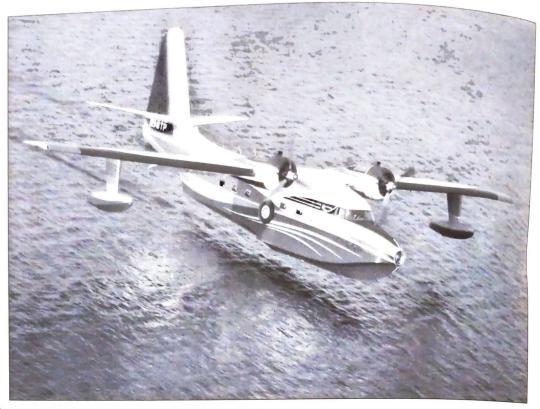
I was enjoying my chat, Reid stood up and said, "Let's take a ride." Reid's co-pilot Andy Macfie pulled up the ladder, closed the hatch and climbed into the cockpit. Reid started Number One and then turned Number Two. As the checklist was completed we taxied out. After takeoff



we climbed to 1,400 feet, and I was amazed at how smooth and stable it flew. The Albatross was so quiet it was almost like we were not moving. We flew along the Colorado River and through several canyons to the Arizona side of Lake Mead before starting to let down in an area where the water was like glass. The touchdown was so smooth that the only indication we were on the water was the spray going by the window. Macfie asked Reid if he wanted to slow down. Reid said just keep her on the step and hold her there. We skimmed along the water, then Macfie advanced the throttles and we lifted off. At this point the rate of climb, improved stability and handling of this highly modified wing was obvious.

We had been flying around for an hour when Reid said lets land and stop. We had worked our way up the Colorado in Arizona to a fairly remote area. After another perfect landing we taxied into a cove and she settled into the water. He turned the Albatross around and prepared for takeoff. The water sprayed off the pontoons as the Albatross rose up on the step. Even with the drag and surface tension of the water at 65 miles per hour she was trying to lift off with the only sense of motion being the water spray going past the windows. We climbed out and leveled off at 1,400 feet when Reid said let's go home.

The scenery was incredible as we flew back down the Colorado River between the high walls on the southern end of the Grand Canyon passing within a half-mile on the western side of Boulder



Dam crossing back into Nevada. Reid said, "I prefer the Albatross over the jets because I just love to fly."

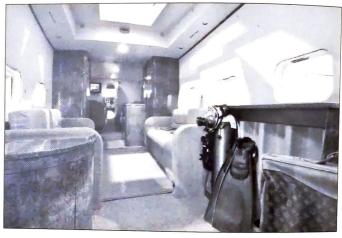
The Albatross Flight Line (see photos opposite)

After returning to Boulder City, and securing the Albatross, Reid accompanied me around to the other aircraft at the flyin, describing the different series and wing configurations. One rather unique Albatross in attendance was N117FB. Originally built in 1961 as a SA-16B, it received U.S. Navy BuNo 148326 for administration purposes only. It is one of only sixteen SA-16Bs originally built for Canada (6) and Japan (10). This airframe was transferred to the Japan Maritime Self Defense Force as JMSDF 9053, where it served until de-commissioned and purchased by Resorts International. After returning from Japanese service it was re-registered in the U.S. as N3479F, and converted to G-111. The Albatross proved uneconomical and consequently was placed in storage. Now back in the air, this Albatross is only one of the two G-111s currently flying.

We inspected another former Chalk's International Albatross, now owned by Paul Rivas. This former UF-1G was built in 1955, and served with the Coast Guard as USCG 1311. It was re-designated HU-16E in 1962, when all Coast Guard Albatross airframes were standardized as HU-16E models. Carrying the civil registration N7973B, this Albatross was rebuilt to serve as Chalk's training aircraft. Although it is the 13th Albatross owned by Chalks, it was never upgraded to a G-111, nor intended for revenue airline service. It has a striking new white, blue and yellow paint scheme.

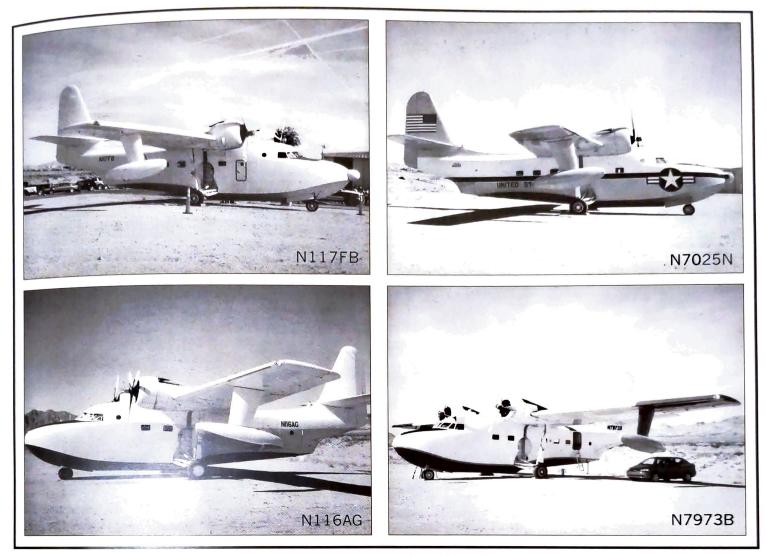
Alaska Airlines pilot Terry Smith flew to Boulder City in his UF-1, known as the "Aleutian Goose." This 1955 model, now

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Top: A former U.S. Air Force SA-16B, N98TP is now living a more leisurely life as a flying yacht. Photo: Max Haynes **Middle:** All the luxuries, and a scuba tank rack, too. **Above:** This image, the top image, as well as the cover shot, are all from the lens of Max Haynes. To view more of Max's outstanding work, please log on to: www.maxair2air.com



registered N116AG, holds the distinction of having been assigned to the USAF S/N 51-7164, the U.S. Navy as a UF-1L – BuNo 142429, and the U.S. Coast Guard as a UF-1G. During the time it served with three branches of military, it was never sent back to Grumman for upgrade and it still has the short standard 80-foot wings. It has been recently repainted with a blue stripe and gull on the tail.

Two more 1955-vintage Navy examples were on hand. The first was UF-1, N7025N – U.S. Navy BuNo 141262. It served with the U.S. Navy until declared surplus and stored, and is now owned by Bill da Silva of Sea Air Adventures of Tecumseh, Michigan. It is painted in U.S. Navy markings and has a clear nose replacing the radome. It is unique in the fact that it has the upgrade radar nose of the later models yet still has the short 80-foot wings. It came off the line in 1955 at a time when many short-wing airframes were being returned to Grumman for upgrade to 96-foot wings.

The other 1955 model in attendance was UF-2 U. S Navy BuNo 141278. Grumman upgraded this former Navy UF-1 with the 96-foot wing. After Navy service it was stored at Aerospace Maintenance and Regeneration Center (AMARC) at Davis Monthan Air Force Base, Tucson, intended for the Smithsonian Marine Laboratory. It is now registered to Upper Limit as N20861 and on this day it was in bare metal.

No expense has been spared on N98TP, one of the latest Albatross restorations to return to the air. This former USAF SA-16B – S/N 51-7186, is now registered to Tony Phillippi's TP Aero. Although the airframe is not as highly modified as the N44RD, it is fitted with the supercharged engines. It features a VIP cabin complete with flat screen entertainment and racks for scuba tanks and gear.

About the only example not on attendance was a SA-16B/ ASW anti-submarine model as none of the 37 airframes, all of which went to foreign nations, has been restored.

The aircraft reviewed at Boulder City represent an excellent cross section of the different series of Albatross airframes produced. During the fly-in I was fortunate enough to meet many owners of these restored amphibians, and learn what an incredible aircraft the Albatross really is. I was lucky enough to catch a flight in the quintessential restoration, saw a third of the airworthy fleet in one day. It doesn't get better than that.

The Grumman family of Amphibians has come full circle from the original 1937 Goose "Flying Yachts" of Wall Street to the Albatross luxury restorations of today.•