

Virginia Aviation History Project



A Story of Two Vultees by Linda Burdette

This is the story of two Vultees – sisters whose destinies merged in Virginia. Both were children of the same father, Gerard (Jerry) Freebairn Vultee, who has been described as a little known man who played a leading role in the drama of aviation in America. Born in 1900, he saw the growth of aviation during his childhood and exhibited an early interest and aptitude for aviation. He attended Cal Tech from 1921-23, studying aviation science, and quite notably, completed a student project in which he designed and built a full-sized aircraft. In 1923, he was hired by Art Mankey as a structural aeronautic engineer at Douglas Aircraft. There, he met Jack Northrop, who was already an associate of Alan Loughead (later Americanized to Lockheed) who was starting his own aviation company. Northrop had an idea for a commercial aircraft and since Douglas wasn't developing commercial aircraft, he approached Loughead with the project. Loughead agreed and they invited Vultee to join them. Together they designed and built the Vega, one of the most popular aircraft of the day, a favorite of such aviation notables as Wiley Post, Amelia Earhart, and Charles Lindbergh.

In 1928, the same year they completed the Vega, Northrop left Lockheed and Vultee moved into his position as chief engineer. His success there was

impressive. Among the innovations he sponsored were the engine nacelle, fully retractable landing gear, replaceable fuselage panels, V-type windshields, and large wing flaps that made it possible to reduce landing speed. His crowning achievement was designing the Sirius for Lindbergh, which brought him some attention, although the world's real interest in the Sirius would peak in 1931 when Charles Lindbergh outfitted it with pontoons and long-range fuel tanks and, with wife Anne, flew from the United States to Tokyo, via northern Canada, Alaska and Siberia.

Unfortunately the Great Depression was as difficult for the aviation industry as for all others and in 1931 Vultee found himself unemployed after Lockheed was purchased by the Detroit Aircraft Corporation and went into receivership. Vultee found jobs teaching at the Curtiss-Wright Technical Institute and with the E.M. Smith Corporation (EMSCO), but in the meantime worked with Vance Breese on a plan for a new commercial airplane. In 1932 he and Breese got financial backing from E.L. Cord, owner of the Cord Corporation. Along with two car companies, Cord owned a number of aviation interests, including Stinson Aircraft Corporation and Century Airlines. Cord needed a new passenger plane for his airline and wanted one that would replace the

Ford Tri-Motors and outmaneuver his rivals. So with Cord's support, Vultee and Breese founded the Airplane Development Corporation, a subsidiary of Cord Corporation. Later, through acquisitions and reorganizations, the company became the Vultee Aircraft Division of AVCO. With Jerry Vultee as vice president and chief engineer, the company acquired Lycoming and Stinson Aircraft Company.

Jerry Vultee's motto was: "Build them fast and build them simple," and they followed this creed in the design of Vultee airplanes. The Vultee prototype, designated the V-1, flew on February 19, 1933, and was test flown for an entire year before production began. The V-1 was of all-metal construction, with a monocoque fuselage, a V-type windscreen, and two-spar wings. The retractable landing gear and the split flaps were operated by a single electric motor. The prototype, NC12293, was powered by a 650 hp Wright SR-1820-F2 Cyclone nine-cylinder air-cooled radial engine, and carried one crew and eight passengers. It was certified in July 1934 by Approval Type Certificate 545.

The production model, designated the V-1A, was slightly larger, powered by a 735 hp Cyclone, and while it carried the same eight passengers, it was operated by a two-man crew, a pilot and an engineer.

As it turned out, the Vultee was the last of the high performance single engine commercial airplanes. It was also probably the fastest. The precedent was set by the V-1 prototype, which was confirmed to have carried a pilot and eight passengers for 750 miles at 195 MPH. The V-1A continued the trend by setting another impressive point-to-point record

when, on January 14, 1935, Jimmy Doolittle flew from Burbank, California, to Floyd Bennet Field in New York in 11 hr 15 min. Additionally a Vultee V1-A was part of the momentous 1936 National Air Race; William Gulick and William Warner came in third with a time of 15:45. It was a wonderful time for Vultee and when on January 19, 1935, he married Sylvia Parker, a Hollywood debutante, they flew to Mexico for their honeymoon in a new V1-A.

Even though speed records and races garnered publicity, the real money was in selling the aircraft for commercial use. American Airways (later American Airlines) purchased the prototype and ordered 10 more to use on its Fort Worth – St Louis – Chicago service. By July 1934, American was operating eight V-1A's. The airplanes were comfortable, reliable, and fast, and seemed destined to be a success story in the fledgling airline industry. However, the death knell sounded for the V1-A when the CAA (predecessor of the FAA) ruled that all commercial passenger planes must have at least two engines. Douglas soon developed the twin-engine DC-2s and DC-3s and the V-1As were in real trouble as commercial aircraft. The airlines began phasing them out of service and by 1937, American Airways had none.

Faced with the loss of commercial sales, Vultee then promoted their deluxe models called V1-A to corporations and wealthy individuals. The V1-AD's were powered by a larger 850 hp Cyclone engine with a three-bladed controllable-pitch propeller and had the latest radios and navigation aids of the time. The sumptuous interiors held six passengers in luxury, and featured plush reclining seats, sound insulation, and a complete lavatory.

One of the more interesting developments in the V1-A was the sole V1-AS twin-EDO float version built for the Soviet government in 1936. With additional fuel tanks in the cabin, an

Specification	
MODEL	V-1AS
CREW	2
PASSENGERS	8
ENGINE	1 x 890hp Wright R-1820-F52
WEIGHTS	
Take-off weight	4200 kg 9259 lb
Empty weight	2405 kg 5302 lb
DIMENSIONS	
Wingspan	15.24 m 50 ft 0 in
Length	11.28 m 37 ft 0 in
Height	3.07 m 10 ft 1 in
Wing area	35.68 m ² 384.06 sq ft
PERFORMANCE	
Max. speed	302 km/h 225 mph
Cruise speed	264 km/h 164 mph
Ceiling	6100 m 20000 ft
Range	1610 km 1000 miles

Specs of the Vultee V-1A

enlarged vertical tail, and a special cold-weather cowling, CCCP-H208 was the last V1-A produced. It took the Russian pilots five and a half weeks to fly from Santa Monica to Moscow via Alaska and



Russian V-1A on Floats

Siberia. Later, manufacturing rights were sold to the USSR, but production plans did not materialize.

Unfortunately for the future of the V-1As, the Spanish civil war began in 1936 and that government needed good reliable aircraft. So sixteen of the existing V-1As were sold to Spain. Many of the aircraft were captured by the opposition at various times during the conflict and the passing back and forth between the sides made for some difficult times for the aircraft. Those that survived the war generally ended up sold for scrap in later years.

To increase the viability of the market, Vultee redesigned the aircraft as the V-11 attack aircraft for the United States Army Air Corps but although the Vultee airplanes were popular in Europe, the U.S. Army did not get on board. So in January 1938, Vultee and his wife, Sylvia, made a trip to Washington, DC to encourage government sales. They were flying a Stinson Reliant SR-9C, an aircraft of Vultee's own design. Despite his credentials as an engineer and his in-depth knowledge of aircraft, Vultee was not an experienced pilot and had no training in instrument or bad-weather flying. The

couple was heading back from Washington and probably anxious to see their six-month old son. But no one is certain why he chose to fly on a day when winter storms were forecast over Arizona. He

was caught in a storm, and apparently tracked back and forth trying to find his way but crashed into a mountain near Sedona, Arizona. He and Sylvia both died in the crash. AVCO hired Dick Palmer away from Howard Hughes to take Jerry's place, and he led the company into developing military aircraft, experiencing some success with the BT-13 Valiant trainer and the V-72 Vengeance. The next year, Vultee Aircraft became an independent company. In 1943, Vultee merged with Consolidated Aircraft Corporation and created the Consolidated Vultee Aircraft Corporation, commonly known as Convair.

So what about our sister Vultees represented in Virginia? Well the most famous V1-AD was NC13770. Its first claim to fame was that it was the plane with which Jimmy Doolittle set that cross-country speed record in 1935. The second is that it became the Lady Peace during the "Ping-pong flight" of September 1936. Harry Richman had begun his acting career as a vaudeville performer, working as a piano accompanist to stars such as Mae West and Nora Bayes. He made his film debut in 1930 with the film "Putting on the Ritz" and his recording of the Irving Berlin song became a hit. He was also a pilot, although fairly inexperienced, but he owned NC13770, a luxury model V-1AD, and that caught Dick Merrill's attention. In 1936, Dick Merrill was the chief pilot of Eastern Airlines. One of the most accomplished pilots in America at the time, he had begun his career as an aerobatic performer and went on to fly mail in Pitcairn Mailwings. Accounts differ on whether the idea for a round-trip flight from New York to London and back originated with Richman or Merrill. The most probable story is that Merrill conceived the idea of the fastest round trip in history and, knowing Richman owned one of the fastest airplanes capable of making the

journey, approached Richman. Now Richman was known as a man with a huge ego – one commonly mentioned reason for his less-than-stellar film career was that he was just too difficult to work with - and Merrill might have played on this vanity when he dangled the carrot of the fame associated with such a venture. At any rate, Richman agreed. Merrill convinced his boss, Eddie Rickenbacker, then owner of Eastern Airlines, to fund the modifications the airplane would need to make the trip. So they installed a 1,000 hp Cyclone engine, long range fuel tanks, and top of the line electronics, including the Hooven Radio Direction Finder made by Bendix. Richman had the brilliant idea of loading the empty spaces in the wings and fuselage with 41,000 ping-pong balls. His argument was that if they were forced to ditch into the Atlantic, the airplane would float. NC13770 was the eighth production model but in a gesture aimed at the war-mongering climate in Europe at that time, he named it Lady Peace. (Note: some sources have confused the tail number of the eighth production model with that of the 25th production model, NC16099, due to the latter's name as Lady Peace II.)

The pair departed New York on September 2, 1936, and headed east across the Atlantic. But about 600 miles west of land, they hit bad weather and the resulting flight delay ran them short of fuel. They landed in Wales, 175 miles west of London, after 18 hours and 36 minutes of flight, at that time the fastest Atlantic crossing ever. They spend a couple of weeks in London, celebrating their success, and on September 14, departed Southport, England, for New York. En route, Richman mistakenly dumped about 500 gallons of fuel, earning him Merrill's ire, and causing them to run short on fuel. They were forced to land in a bog in Musgrave Harbor, Newfoundland and couldn't complete the flight for a week, during which they refueled and made some minor repairs. The trip purportedly cost Richman \$360,000 but ever the entrepreneur, he found a way



Vultee NACA

to make some of it back. For the rest of his career as a nightclub entertainer, he autographed and sold ping pong balls ostensibly taken from the wings of the V-1A. Unfortunately for aviation history, the Lady Peace was one of the airplanes sold to Spain during the Spanish Civil War. It survived the war, serving in the Spanish Air Force until 1953, when it was sold for scrap.

The other Vultee sister, NC16099, today sits in the Virginia Aviation Museum in Richmond, Virginia. But its path there is inexplicably linked with NC13770. Custom built in 1936 for publisher William Randolph Hearst, it was a deluxe model with the plush interior. Its flying capability included a 1,000 hp Wright Cyclone R-1820 radian engine with a three-bladed controllable-pitch propeller and the latest radios and navigation aids of the time. Hearst used it from 1936 to 1939, when it was sold to a Panamanian airline. Eventually it was purchased by the U.S. Army to support the U.S. Embassy in Colombia and so, during WWII, it was flown throughout Central and South America, Cuba, and the Caribbean, transporting the U.S. military attaché and other government officials. Following the war, it went through a number of owners, including a stint hauling live animals from Central America to the University of California Medical School. Obviously it was an airplane in decline, both in its uses and upkeep.

In the 1960's it was discovered by Harold W. Johnston of Pueblo, Colorado, who spent five years returning it to airworthy condition and named it the Spirit of Pueblo. It flew again on April 30, 1971 and

he eventually sold the airplane to Sidney Shannon, Jr. Shannon's father had been a Vice President of Eastern Airlines and close friends with Dick Merrill during the Eddie Rickenbacker years and the Lady Peace adventure. Merrill was a boyhood idol of Sidney Jr. and later they became fast friends. Shannon was in the process of establishing the Shannon Air Museum in honor of his father at Shannon Airport in Fredericksburg, Virginia, and Dick Merrill agreed to be the curator of the collection. When a V1-AD was available for sale, Shannon knew that he wanted it for the collection and that it should honor Dick Merrill. Both knew that the original Lady Peace no longer existed, so when they purchased NC16099, they decided to paint the exterior in the same scheme as the Lady Peace and named it the Lady Peace II.

Merton Meade, who worked at the museum from 1977 to 1981, recalled that the airplane was flown from Colorado by Johnston and Tom Selby with Dick Merrill as a passenger. "When we heard Tom Selby's voice on the Unicom frequency announcing they were arriving, I jumped in the Museum's Pitcairn Mailwing and took off to meet them ... thinking it would be appropriate for two of the aeroplanes

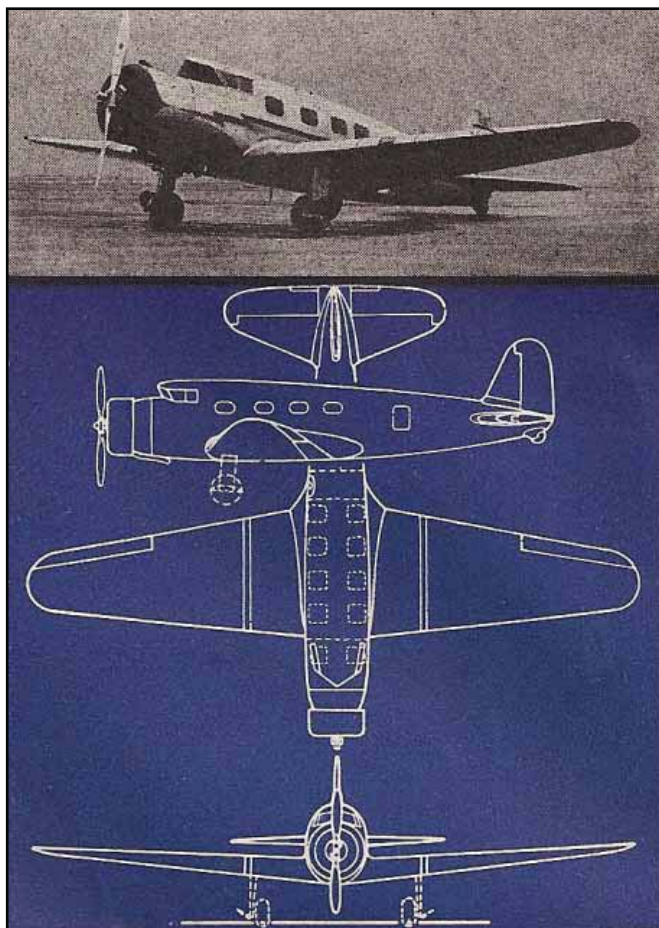
which were so important to Captain Merrill's career to fly together. As it happened, the engine on the Vultee began overheating rather badly and, since the crankcase breather on that particular ... engine is the propeller hub, vast quantities of oil blew out and covered the windscreen. Having had the very same thing happen to me whilst landing at Pax

River Naval Air Station, I now know the problem Harold had landing the Vultee on Shannon's much shorter, much narrower runway. He was up to the task, however, and got the machine on the ground safely." Meade flew the Vultee some 130 hours while it was housed at Shannon. He reported that the Vultee was a "complicated aeroplane to fly" and so "the Vultee entries have a rather special place in my log-book."

Shannon took great pride in ensuring that all the aircraft in the museum's collection were flyable and until the museum closed, the Lady Peace II attended a number of various aviation events around the country. One of these included a flight by Merton Meade to the Antique Airplane Association Fly-in at Blacksburg, Iowa. It was particularly memorable to Meade because his co-pilot

was General Benjamin S. Kelsey, P-38 test pilot and incidentally the safety pilot when Jimmy Doolittle made the first instrument take-off and landing. It must have been amazing to be flying a piece of history with someone who had experienced so much aviation history.

The Shannon Air Museum continued until Shannon's death in 1981, when the collection, including NC16099, was transferred to the Virginia Aviation Museum. There it sits today, waiting for visitors to exclaim at a one-of-a-kind aircraft. Because while



Vultee Plans

there were 27 Vultees produced in total, today NC16099 is the only known surviving V-1A in the world, the proud reminder of a noble legacy.

Sources:

Society of Air Racing Historians, 1936 National Air Race

Ron Dupas Collection, No. 46 Vultee V-1A (NC22077 c/n 16) Alaska Airlines, <http://1000aircraftphotos.com/transport/VulteeV1.htm>

Golden Years of Aviation Registry, Vultee V-1A registration listing

Aerospace Legacy Foundation, Seventy years of aerospace history in Downey, and History of Vultee Aviation

Virginia Aviation Museum, 1936 Vultee V-1A Special www.airport-data.com/aircraft/N16099.html

Wikipedia, Vultee Aircraft

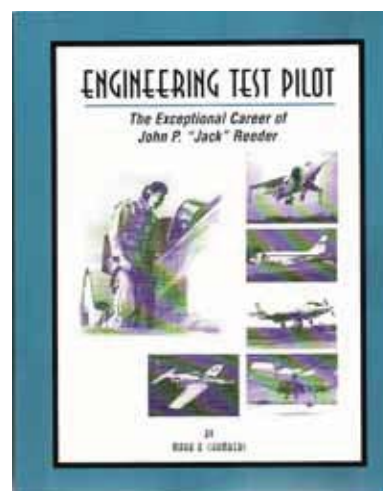
K.O. Eckland's Aerofiles, Lady Peace and her Partners

Early Birds of Aviation, www.earlyaviators.com, Henry Tyndal Merrill



Mark Your Calendars Now!

The Virginia Aviation Hall of Fame Induction Dinner will be held on Saturday, November 17, 2012 at the Virginia Aviation Museum. This year's inductees will be announced in the October issue of the *Virginia Eagles*. Make plans now to attend this wonderful event.



Engineering Test Pilot The Exceptional Career of John P. "Jack" Reeder by Mark Chambers

Read about the Virginia Aviation Hall of Fame's 2005 Inductee John P. "Jack" Reeder's career as a test pilot at NACA/NASA. To order your copy, contact Jen Melton at (804) 222-8690 or vahs@smv.org. \$20 plus tax and shipping.