

AERONCA'S

FOUR seater

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One of the greatest pleasures of the aviation game is visiting a strange airfield and discovering an unusual type of aircraft – either beautifully restored, tucked away in a hangar, under restoration, or at worst, as a decrepit pile of junk behind the hangar



Modified Aeronca 15AC, N1365H (15AC-413) on floats at the Vette-Blust seaplane base, during the EAA Convention, 31 July 2009

THIS year's EAA convention at Margate saw this writer once again prowling around the hangars at FAMG in search of treasure. It was in the local AMO's hangar, Midcoast Air, that the gem was found, a 1949 vintage Aeronca 15AC Sedan, undergoing complete restoration. The type is not well known – in fact one well-known Aeronca owner expressed surprise that the company had even produced a four-seat aircraft to complement their well-known Champ & Chief product line.



DEVELOPMENT

The Aeronautical Corporation of America (i.e. Aeronca) was formed on 11 November 1928 from the Roche-Dohre organisation at Lunken Airport, Cincinnati, OH. Their famous "Flying Bath tub" Model C2 with triangular fuselage debuted in 1929 and was followed by the C3 (of 1931) both of which were some of the earliest true production ultralight aircraft.

The improved Model K series followed in 1937, followed by the model 50 and 65 Chief series, all side by side two-seaters with enclosed cabins and various engines from 42 to 65 hp. A tandem two seater series was also

produced, the 60T and 65T series. A military version of these became known as the O-58 and later, the L-3 Defender, with the US Army Air Corps. A separate line, the Model L low wing monoplane, was produced in the pre-war years.

A total of 253 L-3C Defenders were built without engines as TG-5 training gliders and by the war's end, Aeronca had revised both their tandem and side-by-side two-seaters for the expected post-war boom for light aircraft.

The Model 7 Champion tandem two-seater was a great success with 7555 being built in 1946 alone.

The side-by-side two-seater was the Model 11 Chief, successor to the Model 65C, which was also produced in large quantities. The low wing designs, the Model 9 Arrow and the Model 12 Chum (based on the Ercoupe but with a single fin & rudder) did not advance beyond the prototype stages.

The initial boom for light aircraft quickly subsided and most US light plane manufacturers were stuck with large stocks of unsold aircraft, especially in the two seat market.

Aeronca thus decided to enlarge the basic Champion design to a four seater, widening



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- 1: The very first production Aeronca Sedan, N1000H (15AC-002) which is still airworthy and in good condition
- 2: Some Sedans were modified as crop sprayers. This is N1371H during the late 1940s with spray bars under the wings plus huge wingtip fences to control the swath
- 3: Typical of the Sedans modified as bush aircraft in Alaska is N1178H (15AC-200)
- 4: A regular visitor to the EAA Convention during the summer while on floats, this is N1183H (15AC-194) during the winter while on skis

the cabin, replacing the fabric covered wings with all metal units and improving the power from 65/85 hp to 145 hp. Aeronca however retained the fabric covered fuselage of the older variants as well as the distinctive triangular welded steel tube fuselage frame, which from the C-3 had been filled out, using wooden formers and stringers to give a more aerodynamic and pleasing shape. This was in direct contract to Cessna, whose early model 170s had a metal fuselage and tail unit with fabric wings. Piper followed an economy route and merely widened the cabin of their three-seat PA-12 Super Cruiser, added a little more power and flaps to produce the PA-14 Family Cruiser. Luscombe introduced their model 11 all metal four-seater at around the same time, with both Aeronca and Luscombe adopting the name Sedan for their respective birds.

The prototype Aeronca 15AC Sedan, NX39800 (c/n 15AC-X1), was built in 1947/48 and the aircraft received its type certificate (A 802) on 23 September 1948. It sold for a princely \$4395. Surprisingly, unlike its competitors, wing flaps were not fitted, but most aviators of the day used the side slip technique to bleed off speed and height for landing. A single large entrance door was situated on the right side of the cabin but later, especially for seaplane operations, an aftermarket kit introduced a swing up left hand door marketed by Leavens Bros of Toronto, Canada.

A dedicated seaplane version, the S15AC, was also built. This had a strengthened fuselage frame and enlarged elevator trim tab and EDO Model 89-2000 floats. The standard engine was the 145hp Continental C-145-2 six cylinder horizontally opposed motor, driving either a fixed pitch or Koppers Aeromatic F200/60-37E variable pitch propellor. Take-off was thus a leisurely affair, but the Sedan could nevertheless carry quite a load. It had a payload of 682 lbs with full tanks (33 gals usable), bringing the aircraft to a gross weight of 2050 lbs, a capability far in excess of many similar aircraft of the period. With a fuel burn of about 8.5 gallons per hour, it could fly for about 3.5 hours. Book figures gave 114 mph at 75% power as cruising speed with a stall speed of 53 mph (power off) and a rate of climb at sea level of 800 ft/min.

From c/n 15AC-330, a modification was introduced to the main landing gear so that Federal skis could be fitted for winter use. A modification kit was made available for earlier aircraft to be converted. Another modification was made available by Sevdy-Sorenson Co of Washington, MN, to install a chemical tank for crop spraying and a number of Sedans were so modified. In later years, Aeronca Sedans were upgraded to have Continental O-300A, 165hp Franklin and even the 180hp Lycoming O-360-A1A. Many of these engine mods arose due to the Sedan being popular for bush flying, especially in Alaska and thus needing the extra power.

The aircraft's low fuel burn and spacious interior

led to the type being chosen by pilots Bill Barris & Dick Riedel to set an endurance record in 1949. Sponsored by the local Chamber of Commerce and the Sunkist Growers Association, they flew an Aeronca Sedan named "Sunkist Lady" from Fullerton Airport CA to Miami Florida. They departed on 15 March 1949 and bad weather at their destination forced them to circle overhead for 14 days, before returning to Fullerton. They were assisted by a support aircraft, another Sedan named "Lady's Maid" and were refuelled and re-victualled by passing containers from a moving vehicle to the aircraft. They remained in the air around Fullerton until 26 April setting up an amazing record of 1008 hours (42 days) in the air without landing.

The record, remarkable as it was, did not last for long. The City of Yuma in Arizona, was trying to find ways of boosting their economy after the post WWII slump. The local USAAF had closed down, leading to a drop in the city's economic situation and it was decided to do something to draw attention to the city in an attempt to put it into the spotlight and attract new business. The publicity generated by the "Sunkist Lady" flight had done a lot of good for Fullerton, thus it was decided that Yuma would sponsor an attempt to break the record.

Aeronca 15AC Sedan N1156H, (15AC-166), was loaned by local businessmen, Mickey Lorang and Claude Sharpsteen and the aircraft was modified with additional tankage to take its capacity to 80 Gals. A facility was introduced to top the oil up in flight. After a false start on 21 April 1949 and another on 5 May the definitive record flight was started on 24 August 1949 lasting until 10 October spanning 1124 hrs & 14 mins i.e. 47 days in the air! A Buick convertible was used to speed down the runway and pass cans of fuel, oil, food, drinks and water to the ex US Navy pilots, Bob Woodhouse and Woody Jongeward. The aircraft, marked up as the "City of Yuma" and with "The City with a Future" titles received wide press, TV and newsreel coverage and the city achieved its objective. Moreover later, the US Marine Corps re-opened an air station at Yuma.

N1156H ended up in Minnesota, upgraded with a 180hp Lycoming but in 1997 was brought back to Yuma and restored to its original 1949 condition. The aircraft was flown for the cameras to re-enact part of the record flight and its car-to-plane refuelling system. It has been earmarked for permanent display in downtown Yuma.

Many other Sedans had interesting histories. N1000H (15AC-2), the first production aircraft, flies from Brodhead, WI and is still in its original factory paint with only 1200 hours on the clock. Another,

N1048H (15AC-55), was used by a preacher, Richard Rolfe of Sabina OH for getting the Lord's message to his flock – from the air via speakers fitted in the fuselage of the aircraft. It remained in pretty original condition and today flies in a restored condition in the factory specification Santa Fe Red and Tuscan Cream colours. It has been the recipient of a host of awards at events across the Midwest.

Aeronca Sedans were exported to Canada, India, UK, Bermuda, Guatemala, South Africa, Eire, Switzerland, Ecuador, Panama, and Brazil amongst others.

Despite all this activity, the Aeronca Sedan never became as well known as the Stinson Voyager, Cessna 170 and Piper Cruiser family. A total of 561 were produced, the last one, N1491H (15AC-561) making its first flight on 23 October 1951 with test pilot Earl Balon at the controls. It was also the end of Aeronca as an aircraft manufacturer – just one day short of 22 years! The company went into sub-contracting for the aircraft industry and left others to develop the designs it had initiated. The Champ was developed by Champion, Bellanca and later American Champion, while the Chief was licence built in India as the Hindustan HUL-26 Pushpak.

The use of the Aeronca Sedan in India is interesting. A total of six were exported to India in April 1948. Some ten years later, the Indian AF Station at Kanpur started construction of a light aircraft which bore a remarkable resemblance to the Aeronca Sedan. Whether this was a rebuild of one of the civilian examples or a copy is not known, but the aircraft, BR-570, modified in many respects and fitted with a Lycoming 180hp motor, made its first flight in March 1958, piloted by S/Ldr BK Ghosh. It was named "Kanpur 1".

Allegedly, the then Defence Minister, VK Krishna Menon inspected the aircraft. He asked the national aircraft factory Hindustan Aeronautics Ltd (HAL) at Bangalore why they had not attempted something similar. No doubt stung by the implication, the Director of Technical Development and Production (Air) Mr Jayan Chevla, found fault with the Kanpur 1 and considered its build standard inferior. However HAL soon produced the licence



- 1:** A re-enactment of the 1949 record endurance flight by the "City of Yuma", N1156H (15AC-166), this shows how food, drinks, fuel and oil were passed from a moving car to the aircraft
- 2:** Hindustan Pushpak, VT-DWA seen here at Bangalore in 1998, was the Aeronca Chief built under licence in India. Modified wings from the Pushpak plus a modified Sedan fuselage created the Krishak
- 3:** The one and only Aeronca Sedan in South Africa, ZS-DDA, (15AC-415) seen here in about 1950 in its smart original factory colour scheme of overall bright red with cream rear fuselage, stripes and letters

built Pushpak based on the Aeronca 11AC Super Chief (first flown 28 September 1958) of which 154 were built, and went on to produce their own AOP light aircraft the HAL AOP27 Krishak (BR-459) with 190hp Continental in 1959 which, when it appeared, also bore a remarkable resemblance to the Aeronca Sedan! While the fuselage was similar to the Sedan, but with both port and starboard doors, HAL seem to have used a modified Pushpak wing fitted with flaps for this aircraft. Enlarged windows were fitted for the AOP role.

The IAF depot at Kanpur continued with a second example of the Kanpur, this time powered by a 250hp Lycoming (BR-571). Both types, along with the Auster AOP. Mk.9, vied for a production contract for the Indian Army. It was the modified Krishak Mk II which eventually won the contract, and it is said that seventy were built. The two Kanpurs went to the IIT at Kanpur for technical training purposes and today, both Kanpurs are said to exist, the first at Punjab Engineering College and the other still at IIT, Kanpur, with the covering removed.

In the USA, aftermarket companies continued to produce modifications for the Sedan. In 1982 Burl's Aircraft, at Chugiak AK (run by Burl Rogers) was formed and in 2000, acquired the ATC for the Sedan from William Brad Mitchell (who had acquired it from Aeronca on 11 April 1991). In 2005, Burl's Aircraft began supplying new fuselage frames to existing owners and had stocks of many Sedan spares. They announced on December 8 2005 that they were going to restart production as the Rogers 15AC Sedan with a 180hp Lycoming O-360-A1A, dual seaplane type doors and various other modifications.

THE AERONCA SEDAN IN SOUTH AFRICA

The Aeronca agency in South Africa was held both pre and post WWII by Haller Aviation, which operated from East London, Port Elizabeth and Grahamstown. Pre war, the Aeronca C3, 50C and 65C Chief were imported and post war saw the Model 11AC Chief and variants and the 7AC Champion being imported, all in some numbers. Haller Aviation amalgamated with Sharwoods Flying Services in the early post war period to form Southern Aviation (Pty) Ltd at Port Elizabeth. It is not clear what the fate of the Aeronca agency was, but by 1948/49, Fichardt's Motors of Bloemfontein were advertising both the Aeronca series and Ercoupe as part of their product line.

It is thus not clear who the importer of the sole Aeronca 15AC Sedan on the SA Register was, and the local aviation magazines of the time seem to have ignored it totally, with not even a report of its arrival, much less a flight test being recorded.

The lack of existing civil registers from the late 1940s and the beginning of the 1950s is also a problem, thus only fragmentary evidence of its early history is still available. The Sedan, c/n 15AC-415, a late production example, received its Certificate of Registration No.1555 on 11 July 1949, and received the letters ZS-DDA. No US registration is known for it and it may well have not had one allocated.

It had the standard late model colour scheme using the Santa Fe Red and Tuscan Cream variation (some Sedans were also Blue or Green and Cream). The factory scheme had a broad horizontal band across the fin with the letters AERONCA at the base but ZS-DDA had the entire upper surface of the fin in red.

Early owners of the aircraft included Pat McClure, The Langeveld Sisal Farm and TC Lochner of "Mortimer" near Cradock. The aircraft was also based at various times at Paulpietersburg and Utrecht. It then went to ED van der Walt of Venterstad. During this period, it was a regular visitor to Port Elizabeth for its C of A inspection (today MPI) at Southern Aviation.

By January 1961 it had been repainted in an all-silver scheme, with light blue trim in a pattern corresponding roughly to that of the 1960 Piper colour scheme. This soon gave way to a rather nondescript white with dark blue trim. In 1962/63 it suffered an unrecorded accident which seriously damaged the port wing and undercarriage. By July 1964, the repairs were completed at Virginia. On 5 August 1965, the registration was deleted as ZS-DDA was exported to Zambia as 9J-RBD. Nothing is known of its service there.


By 1967 it was back in South Africa once more but with a new registration ZS-EUP (registered 31 December 1967) and seems to have been based at Rand Airport. It was sold to Ivor Scott of Selibi Phikwe in Botswana in an unairworthy condition. It was taken off the SA register on 16 July 1974 as "crashed". However no crash date or details can be found and it is thought that this was just a registration clerk's reasoning for the lack of airworthiness. No Botswana registration is known for it

and it is unlikely that one was ever issued.

The Sedan remained on Ivor Scott's property along with a Piper Colt in unrestored condition until August 1989 when Wally Gale, an AME at Rand Airport, recovered both aircraft from Botswana. The dusty and spider web festooned frame was put into storage but by 2000, had found its way to Warbirds in Honeydew where a rebuild was commenced.

On 30 May 2003, it was registered ZU-DAY, to DN "Doug" Reeve, but by the following year, it was passed on to a new owner at Oribi, Pietermaritzburg (FAPM). Now Midcoast Air have purchased it and are restoring it to its original condition.

FAA records show that one other Aeronca Sedan, N1250H (15AC-262) is registered to owners with South African connections. They show that the aircraft is registered to Ed and Barbara Granger of Gordon's Bay in the Cape. Whether the aircraft is resident in South Africa or still in the USA is open to question, but records state that it is not currently airworthy (last C of A 11 October 1974) and may be awaiting or undergoing restoration in the USA.

So ends the somewhat convoluted story of Aeronca's stepchild (for many – the company's best). But if all goes well, perhaps in the next four years, two Aeronca 15AC Sedans will grace our skies. 



Above: ZS-DDA at Rand Airport on 9 January 1961 after being repainted in overall aluminium dope with bright blue trim

Below: The same aircraft in its new guise as ZU-DAY under rebuild by Midcoast Air at Margate on 6 August 2010