The Götaverken GV-38 Story



Jan Forsgren

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Two 1939 advertisments from the aviation magazine Flyg.



The second production GV-38, SE-AHD, being removed from the assembly hall. Photo: via Per Björkner

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Cover: GV-38 SE-AHU seen prior to taking off from Ope airfield in the summer of 1963.

fotograferad i samband med start från Ope-fältet sommaren 1963.

Photo: Bengt-Göran Ringholm via Jan Strömberg

Rear cover: A beautiful image of SE-AHG, taken at Hedemora on 22 April 1974. Note that the aircraft is fitted with a Continental engine instead of the original LeBlond 5F engine. Photo: Leif Fredin

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Preface

A book on the GV-38 may be considered superfluous. A mere 14 GV-38s were built by Götaverken between 1938 and 1943. The GV-38 was the first first of its kind to enter quantity production in Sweden – albeit being of American origin, performing long and faithful service with Swedish Aero Clubs and private operators for decades. Due to various reasons, the GV-38 was not a success, neither when considering the number produced or its rather lacklustre performance. No less than six GV-38s are still in existence, with one, SE-AHG, still being airworthy. The GV-38 story is an interesting one, although one which is rather unknown.

The aim of this publication is not to present a complete history of the aircraft manufacturer Götaverken, or the GV-38, but rather as a memento of an aeroplane with a very strong connection to Swedish aviation history. The main focus of the book are the individual aircraft histories, where the original aircraft, Rearwin 9000L Sportster SE-AGB, and the fourteen GV-38s are presented in words and pictures. The original printed edition appeared in 2009. This is a slightly revised and updated edition.

Jan Forsgren

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GV-38 SE-AHX, seen when owned by Per 'Orsa-Pelle' Petterson. Photo: via Per Björkner

Historical Background

The company AB Götaverken was formed in Gothenburg in 1841 for the purpose of building ships. During a Board meeting in February 1934, plans for the establishment of an aircraft division was put forward by Hugo Hammar, the Managing Director of Götaverken.

In the event, an aircraft division was formed soon afterwards, with Daniel Torbjär being appointed to head the aircraft division. A Flygvapnet (Swedish Air Force) contract for the manufacture of three Hawker Hart (designated B 4A) light bombers was signed on 29 January 1935. Due to the complete inexperience in building aircraft, the Hart's were not completed until mid-1937. As a result, no further Flygvapnet orders were placed with Götaverken.

Despite this, the aircraft division initiated the development of a single-engine fighter and a twin-engine bomber. Designing and building military aircraft was seen as a lucrative business, with the aircraft engineer Bo Lundberg being hired as chief designer. In the end, neither design proceeded any further than the drawing board.

Following the cancellation of the fighter and bomber designs, the aircraft division of Götaverken continued function until finally being disbanded in 1943. Following the Soviet attack on Finland on 30 November 1939, nine former RAF Westland Lysanders, 35 Fiat G.50 and 12 Fiat CR.42 fighters were assembled at Götaverken, and delivered to the Finnish Air Force. The CR.42s had been paid for by public subscription, and were not delivered until after the war had ended. The Finns chose not to take delivery of the CR.42s, which were taken on charge by Flygvapnet instead. In 1941, the sole Handley Page Hampden in Flygvapnet service was modified as a VIP aircraft.

Nevertheless, the Managing Director of Torslanda airport, Gösta Andrée, travelled to the USA in the spring of 1937 of the behalf of Götaverken. Andrée was to select a suitable light aircraft to be built under licence by Götaverken. The aircraft selected was the Rearwin 9000L Sportster. One 9000L Sportster was imported, with the Swedish-built aircraft being

designated Götaverken GV-38. In all, 14 GV-38s were built between 1938 and 1943. The designation GV-38 was derived from Götaverken and the year 1938.

The Rearwin 9000 Sportster

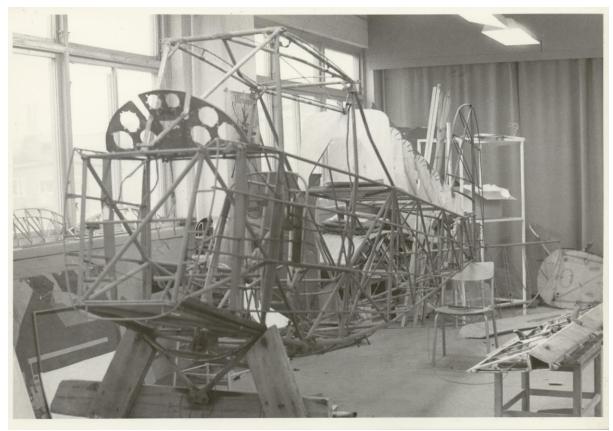
The aircraft delivered to Götaverken was a 9000L De Luxe Sportster (c/n 567D), which arrived in Sweden in the spring of 1938. On 17 May 1938, it was registered as SE-AGB, with P.G. Dahlén of Götaverken as formal owner. (Unfortunately, I have so far been unable to locate any documentation, contracts, correspondence etc, between Rearwin and Götaverken.)



A rather fuzzy image of the sole Swedish Rearwin 9000L Sportster, SE-AGB. Photo: Nils-Arne Nilsson Collection, via Swedish Aviation Historical Society

The Rearwin 9000 Sportster becomes the GV-38

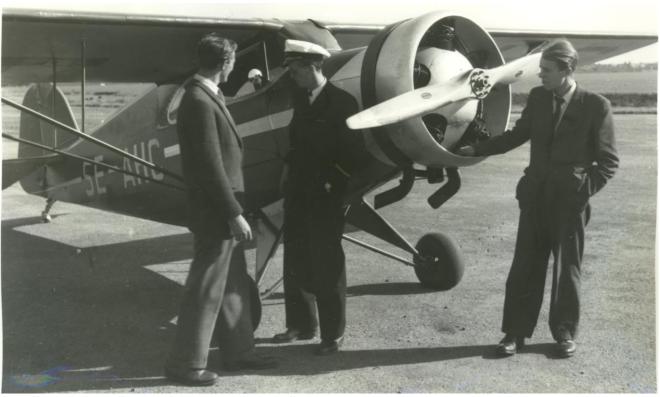
Licence production began fairly quickly. However, the Götaverken-built aircraft was not an exact copy of the Rearwin Sportster. The National Aviation Board demanded certain changes to be implemented, such as strengthening the wing spars and the fuselage stringers. The steel tubes of the fuselage frame were dimensionally larger than on the original aircraft. The lower section of the rudder was increased in order to improve the spin characteristics. One of the worker's was Aron Leuchovius, who later sarcastically wrote that: "The air in Sweden must in some way be less favourable than in America, where the Rearwin flew fine...".



A revealing image showing the fuselage steel tube frame of the GV-38. The aircraft is SE-AHD, shown under restoration in early 1974. Photo: Benny Karlsson

Due to these modifications, the GV-38 was 20 kg heavier than the Rearwin 9000, resulting in reduced overall performance. An initial series of six GV-38s was completed in 1938. However, Götaverken experienced difficulties in finding buyers for the aircraft. Kungliga Svenska Aeroklubben (The Royal Swedish Aero Club, KSAK) did not select the GV-38 as a standard aircraft as twin-seat open-cockpit aircraft were considered as being better suited for the role of primary flight training. The German-designed Klemm Kl 35 was eventually selected by KSAK. Nevertheless, the Eskilstuna, Västerås and Östersund Aero Clubs bought GV-38s in 1939, with KSAK contributing towards the cost of purchase. The GV-38 was expensive, with the cost being equivalent to three Piper Cubs. One problem was that it was underpowered.

Allegedly, Gösta Andrée had attempted to purchase 125 h.p. Warner Scarab engines for the GV-38s. This failed, with the 90 h.p. Le Blond 5F having to suffice. It is likely that about 20 Le Blond engines were imported (the exact quantity is unknown). A few aircraft were subsequently reengined with Continental C-90 engines, increasing both overall performance and reliability.



The first GV-38, SE-AHC. Photo: via Jan Strömberg

Sweden is a sprawling country, with some 90,000 lakes and countless rivers. As a result, the GV-38s could be equipped with floats. Aron Leuchovius participated in the GV-38 floatplane trials in 1939. The second production aircraft, SE-AHD, was fitted with floats, resulting in a considerable weight increase. On one occasion, a precautionary landing had to be made off the Gothenburg coast due to fog. The coast was reached by taxiing on the water and following the direction of the compass. With the final drops of petrol, Torslanda Bay was reached. The GV-38 floatplane was not a success. Nevertheless, several GV-38s were flown as floatplanes.

Bo Lundberg, who had been hired as head of the aircraft design section, referred to the GV-38 as: "In my opinion, a horrible machine." This view was shared by many GV-38 pilots. However, even if the flight characteristics did not inspire prospective fighter pilots, the GV-38 was rugged.



SE-AHD seen during float trials. Photo: via Per Björkner

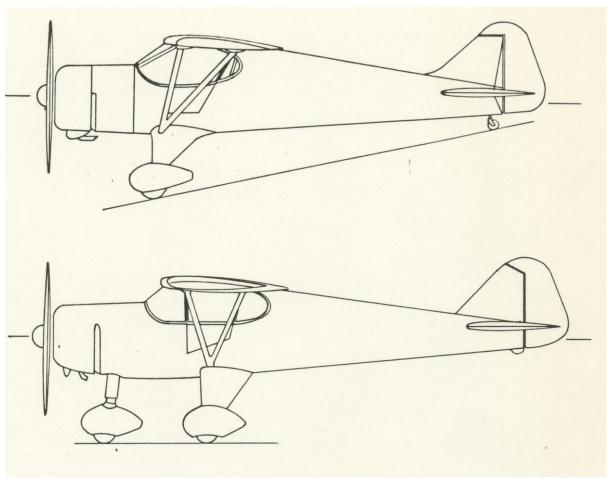
With the previously mentioned difficulties in achieving sales, it is interesting to note that one GV-38 was donated to the Norwegian ship owner Sig. Skauen. This was no doubt made in the hope of securing orders for further GV-38s. This was the sole GV-38 to be exported.



GV-38 LN-FAP. The photo was printed on the Norwegian Certificate of Airworthiness., which was approved on 13 July 1939. Photo: Norwegian CAA via Kay Hagby

A second series of six GV-38s was completed. A third batch of six aircraft was reduced to two. From the seventh production aircraft, SE-AHS (c/n 10), the engine cowling was lengthened, with the exhaust system being enclosed. This was made on the recommendation of the Swedish National Aviation Board. These modifications resulted in a better aerodynamic configuration and increased performance.

Ambitious plans for a development of the basic GV-38, designated GV-40, came to nothing. One of the proposed GV-40 variants featured a retractable undercarriage and a more aerodynamically refined engine cowling and fuselage. Other ideas for the GV-40 included fixed undercarriage variants, with both tail-wheel and tri-cycle undercarriage being considered. Due to the war, and the high cost of development and a limited market due to the war, the GV-40 remained on the drawing board.



Two of the projected developments of the GV-38, designated GV-40, is shown above. With the Aircraft Division being closed down, the GV-40 remained a paper project. Drawing: via Per Björkner

Courier Flights

In April 1940, one GV-38 (SE-AHD) was purchased by the Norwegian government. The story of the Norwegian ownership of SE-AHD is very interesting, but relatively unknown. Following the German invasion of Norway on 9 April 1940, the need to establish contact between the Norwegian government in exile and the so far unoccupied parts of the country and the legation in Stockholm became urgent. On 24 April, SE-AHD was sold to N. Lenander, Stockholm. The real buyer was, however, the technical manager of the Royal Norwegian Army Air Force, Gunnar Vardan. Three days previously, Vardan had been ordered to travel to Gothenburg to inspect a pair of GV-38s, which were stored disassembled at Götaverken.

With the assistance of Gösta Fraenkel, Vardan completed the inspection of the GV-38s, after which one of them was transported to Torslanda airport, where it was assembled. On 24 April, SE-AHD had been assembled and declared airworthy. Having received permission from the Norwegian air attaché, Major Gundersen, to complete the purchase, Vardan paid 16,000 kronor for the aircraft. This was, incidentally, in all likelihood considerably more than the estimated value of the GV-38. As Vardan did not have permission to fly in Sweden, Fraenkel found a substitute pilot, the engineer Georg Lithander, with Vardan riding along as a passenger. With the necessary paper work completed, Lithander and Vardan took off from Torslanda at 12.10 hours. During the flight northwards, they passed over the city of Borås at an altitude of 500 metres. Lithander had previously flown a number of target flights in the

area, and thus chose to fly directly above the anti-aircraft gun positions. Even though a flight plan had been filed and approved, the gunners opened fire with machine guns on the GV-38. The GV-38 was not hit, with Lithander commenting with a wry smile that "The boys are aiming poorly!"



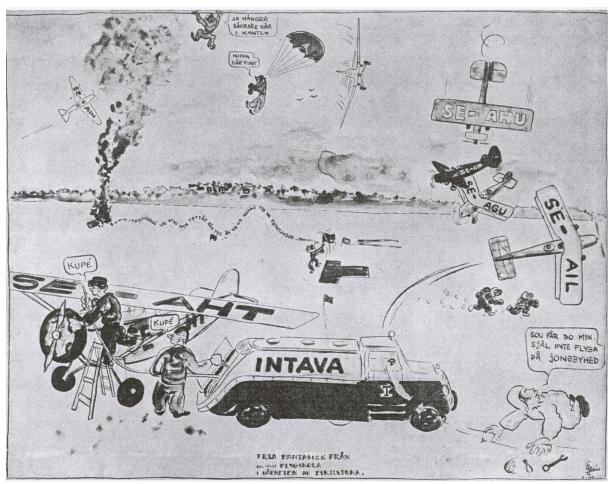
GV-38 SE-AHD, most likely photographed soon after factory roll-out in 1938. Photo: via Per Björkner

During the rest of the flight, any anti-aircraft gun positions were carefully avoided. Following an intermediate landing at Norrköping, Lithander and Vardan arrived at Bromma airport just north of Stockholm at 15.42 hours. The GV-38 was then flown to Hedeviken, where Sergeant Arnt Hvinden awaited orders to fly to Norway. When starting the engine, one of the locals strayed into the propeller arc, later dying of his wounds. This tragic accident delayed the commencement of the courier flights.

The first courier flight between Hedeviken and Stuesjøen in Norway took place on 2 May with a load of mail. In return, mail was picked up in Norway for onward delivery to the Supreme Command of the Norwegian Army. However, as the route had not been approved by Swedish authorities, the GV-38 was transferred to the city of Östersund. The Swedish authorities also demanded that all flights into Norway must be carried out by Swedish pilots, with an Export Permit having to be sought for each flight. (Apart from the GV-38, a Junkers W 34 (SE-AKI) and a Royal Norwegian Army Air Force Fokker C.V-E (serial 355) was used for the courier flights.) With the GV-38 being the smallest of the three, also having the smallest payload and limited range, it was rarely used for courier flights. By early June it was planned to transfer SE-AHD to Svanvik in northern Norway. However, this did not happen, as Norway surrendered on 8 June 1940.

Flying the GV-38

The GV-38 was occasionally referred to as the 'Rocking Horse', due to its flight characteristics. Another nickname was The Guppy, a reference to the drooping lower fuselage which had the appearance of a pregnant gold fish. Even if the GV-38 was underpowered, it was of rugged construction. It could take-off and land at small, primitive fields with little difficulty. In 1940, two GV-38s, SE-AHT and -AHU, were used by KSAK during a flight training course held at Södermanlands Ekeby. Due to the relative poor performance of the GV-38s, they were not particularly popular among the student pilots, who preferred the agile and highly aerobatic Bücker Bü 131s instead.



The activities at the Ekeby Flying School in 1940, as experienced by one of the trainee pilots. Two GV-38s can be seen, SE-AHT and -AHU. From *Flyg*, issue 4, 1940

During the Second World War, several of the GV-38s were leased by Flygvapnet, as described elsewhere. The possibly best-known GV-38 pilot during the war was Uno Ranch, who at various times owned different GV-38s. Ranch flew GV-38s for many hours, assisting in the training of the anti-aircraft crews. In his book Bugattibilar, Europaresor och Flygapparater (Bugatti cars, European Travels and Flying Flying Machines), Ranch reminisces about a particular GV-38 flight between Bromma airport and Gothenburg on 14 January 1940.

"When I arrived over the Kolmården area, I received the first warning of what was about to happen. All of a sudden the machine began to jump and shake in a manner I had never experienced before. I descended to an altitude of 500 metres, but things did not improve. I then climbed to 1,500 metres, but the jumps and shaking did not stop at all. The rudder harmony of the GV-38 was certainly not the best under ideal conditions. On top of that, the aircraft was of a high-wing configuration. I literally wrestled with the stick. I was sweating profusely and admit willingly that I was scared out of my wits. The flight plan that I had filed included dropping down to low level over Norrköping. I refused to follow through with this, even if I ran the risk of being shot down. I was, quite simply, desperate from fear.

I changed course slightly, flying across Wing F 3 at Malmslätt, where I had performed my national service in 1927. Flying below the clouds, things got even worse. My aircraft twisted and turned, and I was very grateful that the GV-38 was of such robust and rugged construction. Despite flying over Wing F 3, I was neither shot at by anti-aircraft artillery nor intercepted by Flygvapnet fighters.

I continued southwards, thinking that things would calm down when I reached Lake Vättern. I maintained my course over the centre of Lake Vättern, with things improving slightly. When I flew over Visingsö Island, the aircraft all of a sudden began to sink as if in an elevator. The altitude was about 1,200 metres, and I immediately pushed the throttle forward and pulled back the stick. None of this helped. The aircraft continued downwards at great speed, despite being straight and level. I was convinced that my final moment had arrived. However, at an altitude of between 150 and 200 metres above the water, the 'elevator' stopped. I resumed my course towards the city of Jönköping, while experiencing severe buffeting. When I arrived over the shoreline, the aircraft was struck by extremely strong buffeting. The rear seat, which could be adjusted to reach a small luggage compartment, struck the roof with an incredible bang, immediately followed by an even louder bang when the seat returned downwards.

Soon afterwards, I landed at the grass airfield at Jönköping, and taxied towards the hangar. I was met by Mr. Orkan, whom I knew well. When I climbed out of the aircraft, he asked me – How was your flight? Terrible, to say the least I responded, telling Orkan about what had happened."

After taking-off from Jönköping and continuing to Gothenburg, Ranch experienced the same phenomena. Today, this is known as wind-shear.

In Flygvapnet Service

As with several other civilian aircraft, many of the GV-38s were leased by Flygvapnet for use as liaison aircraft. The GV-38s were also listed in the mobilization plan, and they were – as related previously – heavily utilized for target flights for the training of anti-aircraft gunnery crews. According to a mobilization plan dated December 1940, eight GV-38s were to be distributed as follows in the event of mobilization taking place: SE-AHE and –AHS (Wing F 1), SE-AHD (Wing F 2), SE-AHU (Wing F 6), SE-AHC and –AHT (Wing F 7) and SE-AHG and –AHH (Wing F 9).

In April 1941, plans were formulated for the Swedish military occupation of the Finnish Aaland Islands. Due to political considerations, this did not happen, but it was intended to use a large number of civilian aircraft (including Douglas DC-3s and Junkers Ju 52/3ms) to airlift 8,200 troops within four or five days. Eight GV-38s were to be distributed as follows: SE-AHE and –AHS (Wing F 1), SE-AHD (Wing F 2), SE-AHU (Wing F 4), SE-AHT (Wing F 6), SE-AHC (Wing F 7) and SE-AHG and –AHH (Wing F 9).



GV-38 SE-AHT, probably photographed at Wing F 11 during the summer of 1943. Note the B 4A (Hawker Hart) in the background. Photo: via Per Björkner

On 23 July 1943, seven GV-38s were requisitioned by Flygvapnet. Three days later, the aircraft were distributed among various Wings for use as light transports and liaison. The Swedish government decided unilaterally to cancel the transit agreement with Germany. Thousands of German troops had between July 1941 and July 1943 travelled through Sweden by rail from Norway to Finland and vice versa. This meant an increased risk of Germany invading Sweden. Of the seven GV-38s, SE-AHD and –AHY were transferred to Wing F 6 (-AHD initially being intended for Wing F 2), SE-AHC to Wing F 7, SE-AHG, -AHS and -AHW to Wing F 9 (-AHS initially being intended for Wing F 1) and SE-AHT for Wing F 11 (intended for Wing F 1).



A unique photo showing GV-38 SE-AHC adorned with Flygvapnet insignia. Note that the aircraft lacks the engine cowling. Photo: Flygvapenmuseum via Jens Lindell

On 14 August, orders were received that all of the civilian aircraft that had been requisitioned were to be finished in camouflage colours and Flygvapnet insignia applied. At least one GV-38, SE-AHC, had Flygvapnet insignia applied. It is doubtful if this was carried through on the other GV-38s. During almost three months, the seven GV-38s accumulated 264 hours and 55 minutes of flying time during 525 flights. The number of hours and flights for the individual GV-38s are listed in the Individual Aircraft Histories Section. By the end of September 1943, all of the GV-38s had been returned to their respective civilian owners. No Flygvapnet designation was assigned to the GV-38s.

Colours and Markings

The GV-38s were painted dark blue, with the struts being silver. The registration letters were white. The Götaverken logotype appeared on both sides of the front fuselage. The exception to this was SE-AHT, which was finished in cream colour, with registration letters and cheat line in red. The reason behind this is unknown. When the aircraft were overhauled, and if the fabric-covering was replaced, the colours usually changed according to the respective owner's desires. For instance, during the early 1960s, SE-AHU was painted silver with dark green cheat line and engine cowling and registration letters in red. Another example of individual colour schemes is SE-AHY, which during the end of its flying career was finished overall light green with red cheat line and maroon registration letters. The sole GV-38 still flying, SE-AHG, is painted in the original factory colour scheme, overall dark blue.



GV-38 SE-AHX seen outside 'Orsa-Pelle's hangar sometime in the mid-1940s. Photo: via Per Björkner



GV-38 SE-AHG seen at Kungsängen airfield outside Norrköping in August 1974. Photo: Per Björkner

Individual Aircraft Histories

Out of the 14 GV-38s built, no less than six survive, a survival rate of 42,85 percent! The Rearwin 9000 imported by Götaverken is currently stored in Denmark. Detailed histories of the Rearwin 9000 and GV-38s can be found below.

The following abbreviations have been used:

Ar Cancelled B Inspected Bt Build permit Eo Unofficially F Destroyed H Crashed Lu Certificate of Airworthiness expired R Date Registered

Rearwin 9000L Sportster

SE-AGB (c/n 567D)

This Rearwin 9000, this only one of its kind to be registered in Sweden, was registered as SE-AGB on 17 May 1938. In late 1940, the aircraft was sold to Uno Ranch, who retained ownership for nearly ten years. During the early 1960s, SE-AGB was reengined with a Continental C-90 engine. This was due to the fact that the Le Blond engine was worn out, as well as lacking spares. The new engine provided better performance. At the time, the Rearwin was owned by Duells Aero in Gothenburg. The flying career of SE-AGB came to an abrupt end on 24 May 1965. Having landed at runway 13 at Bulltofta airport, the pilot, Holger Duell, taxied towards the tarmac. He subsequently taxied into the slip stream of a Transair DC-7B which was undergoing an engine run. SE-AGB overturned, resulting in slight damage to the left wing, stabilizer and fin. The propeller was also slightly damaged. Duell was not injured, quickly exiting SE-AGB. None of the Transair mechanics had noted the Rearwin 9000, either before or after the aircraft overturned. No formal investigation into this incident was made, as Duell stated that he intended to scrap the aircraft. Thankfully, Duell did not follow through with this, instead transferring SE-AGB to the Malmö Science Museum. In 1979, SE-AGB was exchanged for an Auster from the Danish Vintage Aviation Collection. The sole Swedish-registered Rearwin was then transported to Stauning, Denmark, where a restoration to airworthiness was initiated. The registration OY-AVJ was reserved in 1980. At the time of writing, the restoration is about 50 percent complete. No date for completion has been set.



SE-AGB seen after overturning on 24 May 1965. Photo: Nils-Arne Nilsson via Swedish Aviation Historical Society

R 17May 1938 for P.G. Dahlén, Gothenburg

18Oct 1940 sold to Uno Ranch, Gothenburg

12Jul 1950 sold to Halle-Hunneberg Aero Club, Trollhättan

13Apr 1953 sold to H. Olsson, Svanesund

26Nov 1956 sold to G.S.A. Myrbäck, Hjärtum

13Sep 1957 sold to G.I. Falk, Uddevalla

19Apr 1958 sold to Parfum Lombard AB, Malmö

17Aug 1959 sold to Duells Aero, Gothenburg

H 24May 1965 at Bulltofta airport, Malmö

Ar28Sep 1965

1965 Transferred to the Malmö Technical Museum

1979 To Danish Vintage Aviation Collection, Stauning, Denmark

1980 Reserved as OY-AVJ

Götaverken GV-38

SE-AHC (c/n 4)

The first GV-38 was completed in late 1938. Registered as SE-AHC, it was owned by a succession of individuals, also being one of the aircraft requisitioned by Flygvapnet in mid-1943. The final owner was Degerfors Aero Club. SE-AHC was cancelled in 1963. This particular GV-38 is currently owned by the Vintage Aviation Society of Göteborg (GVFS), and is undergoing restoration to airworthiness. Since 2001, the restoration work has been undertaken at Aeroseum north of Gothenburg.

An original LeBlond 5F engine has been fitted. The aircraft is virtually finished, with some taxiing trials having been performed. At the time of writing (2020), the main remaining issue is the propeller.



The first GV-38, SE-AHC, seen with a pair of Piper J3C-65 Cubs. The photo was probably taken sometime in the mid-1950s. Photo: via Jan Strömberg

R 28Oct 1938 for AB Götaverken, Gothenburg 28Aug 1941 sold to Gösta Andrée, Gothenburg 8Jun 1942 sold to Uno Ranch, Gothenburg 9Apr 1943 sold to T. Andersson, Linköping 23Jul 1943 requisitioned by Flygvapnet 27Jul 1943 transferred to Wing F 7, based at Såtenäs

13Aug 1943? Returned. TT 26 hrs 20 min during 45 flights

26Mar 1947 sold to L. Gustafsson, Nässjö

Ar31Dec 1956

R 31Oct 1958 to S.J. Eriksson, Umeå &/J.H.G. Lindkvist, Teg. Another share was sold to S. Lindkvist, Teg, in 1959

30Mar 1960 sold to Degerfors Aero Club, Vindeln



Members of GVFS in front of SE-AHC. From L to R; Claes Axelsson, Frans Landerberg, Ralph Duell, Hans Slieker, Thomas Ohlsson. Photo: Jan Forsgren

SE-AHD (c/n 5)

Arguably one of the historically most important of all GV-38s, SE-AHD was sold to the Norwegian legation in Stockholm on 24 April 1940. It was used on at least one courier flight between Sweden and Norway. Following the Norwegian surrender, the GV-38 was sold to Svensk Flygtjänst AB (Swedish Air Services Ltd). As with several other GV-38s, SE-AHD was used by Flygvapnet.



GV-38 SE-AHD seen sometime during the late 1930s/early 1940s. The aircraft in the background are Focke-Wulf Fw 44J Stieglitz (designated Sk 12) primary trainers. Photo: via Per Björkner

Returning to civilian ownership, the GV-38 was operated by different individuals until being purchased by the car dealer Östen Tallberg on 16 January 1961. Tallberg did not have a pilot's licence, instead employing the services of pilots as required. However, already on 28 May 1961, SE-AHD came to grief at Laknäs, 12 km north of Leksand. Both the pilot, Bengt Larsson and Östen Tallberg were uninjured. After experiencing engine trouble, Larsson managed to set the GV-38 down on a farmer's field. Both propeller and engine suffered damage when the aircraft hit rocks hidden by shrubbery. The wings and undercarriage were damaged as well, while some "dents and holes" were added to the rear fuselage.



SE-AHD seen following the force landing at Laknäs. Note the temporary strut beneath the right wing. Photo: via Swedish National Archives

The engine was removed and sent to the Ostermans workshop at Södertälje for examination. It was found that cylinder no. 3 had broken away from the crankcase, after which the suction tube and exhaust pipe for this cylinder had cracked. Due to the cracked suction pipe, the remaining four cylinders received no fuel, which was the cause of the engine failure. Further investigation showed that of the eight fastening bolts for the no. 3 cylinder, six had cracked, one had been pulled from the crankcase and the last one to be missing its fastening nut. When the other cylinders were disassembled, it was found that several of the fastening bolts had not been tightened at all, while other bolts "had a far too low tightening moment."

According to the report compiled by Ostermans, certain cylinders showed signs of damage. It was clear that (failed) attempts had been made to remove the cylinder heads. Many other faults were discovered with the carburettor float and fuel filter being severely corroded. According to the wishes of Tallberg, the Le Blond engine (c/n 1193) could be scrapped apart from the exhaust collector and magnetos. This did not happen, as the engine was later acquired by the Arlanda Civil Aviation Collection. In 2012, the engine was once again fitted to SE-AHD.

Following the crash, Tallberg sold the engineless GV-38 to a local village shop owner, Carl-Arne Östberg, who placed the aircraft on the roof of his shop at Korsgården. Apparently, the asking price was 50 kronor. (In today's money, 50 kronor is about six Dollars.) SE-AHD had flown a total of 1,791 hrs and 15 minutes. In January 1972, the now severely derelict GV-38 was purchased for 400 kronor by the Arlanda Aircraft Restoration Group. Weather and vandals had done much damage to SE-AHD. The wings were found to be beyond rescue, with the wings of GV-38 SE-AHX subsequently being acquired during the early 1990s. Small parts of SE-AHD's wings have survived, being stored by the Arlanda Civil Aviation Collection. A Le Blond engine (c/n 1100) was found and fitted to SE-AHD. This engine was later removed,

and replaced by the Le Blond originally fitted to the GV-38. The Le Blond c/n 1100 has been moved to the engine exhibition at Arlanda.



The remains of SE-AHD seen in January 1972. The fuselage fabric covering on the starboard side had been ripped to pieces. Photo: via Per Björkner

Restoration work began in 1974, with a thorough inspection, cleaning, repair and replacement of missing components of the fuselage steel tube frame. The fabric covering was replaced (the original being consigned to storage). The work stopped in the late 1970s due to other projects, not starting anew in earnest until 2010. Parts of the interior, including the throttle lever needs to be built from scratch, while the Le Blond engine is devoid of the exhaust collector and magnetos. After this has been completed, the wings will be painted and the aircraft assembled.



SE-AHD photographed in 2019. Photo: Jan Forsgren

R 10Nov 1938 to AB Götaverken, Gothenburg

26Apr 1940 sold to N.E. Lenander, Stockholm

3Feb 1941 sold to AB Flygleveranser

21Nov 1942 sold to Nya AB Nils Olofsson, Gothenburg

23Jul 1943 requisitioned by Flygvapnet

26Jul 1943 transferred to Wing F 6 at Karlsborg

3Sep 1943 returned, having flown 26 hrs and 50 min during 41 flights

15Oct 1943 sold to N. Olofsson, Gothenburg

21May 1954 sold to G. Westdahl, Gothenburg

7Oct 1960 sold to Sveli-Flyg KB, Ersmark

16Jan 1961 sold to Östen Tallberg, Malmberget

H 28May 1961 at Laknäs, Leksand

Ar27Oct 1964

Jan 72 bought by Arlanda Aircraft Restoration Group. Preserved by the Arlanda Civil Aviation Collection. Restoration still on-going.

SE-AHE (c/n 6)

The story of SE-AHE, one of three used by the Västerås Aero Club, is interesting mostly because of its spectacular and fiery end. Formed on 26 March 1935, the Västerås Aero Club grew quickly. In December 1938, it was decided to purchase a GV-38. It was intended to use the aircraft for primary flight training during the first months of 1939. The flight instructor was a Sergeant Magnusson. SE-AHE led a rather anonymous life, being one of the few GV-38s not requisitioned by Flygvapnet. The Certificate of Airworthiness expired on 23 March 1948, with the GV-38 becoming a source of spares for the Club's other two GV-38s. By early 1950, SE-AHE was in poor condition, according to one Club member "ready for the junk heap". However, fate intervened, and it was decided to modify the GV-38 for rocket power for a forthcoming air show. Exactly who it was that came up with this novel idea is perhaps best forgotten. Anyway, such a crazy suggestion demanded further investigation.



A rare photo, probably taken after the end of the war, showing SE-AHE. Photo: via Svensk Flyghistorisk Förening

The derelict GV-38 had its propeller and engine removed, with a metal bar being mounted between the undercarriage legs. The legend SX-1 and the word Test was painted on the fuselage, along with an arrow pointing downwards. On the day of the air show, 4 June 1950, the GV-38 was placed at the edge of Johannisberg airfield. Towing cables were fitted on each wing, with the winch being placed some 80 metres in front of the aircraft. Come show time, the GV-38 lurched forward, with the wings breaking off when it reached the winch. Meanwhile, a volunteer (or a person voted in for the job) was sitting in the rear seat, continuously firing off rockets out of the left side window in order to illustrate a rocket powered take-off for the 12,000-strong crowd!

The following day, the local newspaper *Vestmanlands Läns Tidning* wrote under the headline "Less success for the jet airplane" that "The first test flight of the amateur-built jet airplane constructed by (Mr.) Jönsson of Skrubbamåla was, as expected, a rather ridiculous event. There was smoke and fire, bangs and full stop and the end! One might wish better luck next time?!"

The GV-38 remained registered until late 1954. Apparently, it was planned to restore the GV-38 to flying condition. Needless to say, this did not happen.



SE-AHE seen following its 'conversion' as a turbine jet aeroplane. Note the additional undercarriage strut. Photo: Kurt Börjesson

R 10Nov 1938 to AB Götaverken, Gothenburg 19Apr 1939 sold to Västerås Aero Club, Västerås Lu23Mar 1948 Ar19Nov 1954 Scrapped

SE-AHF (c/n 7)

This was the only GV-38 to find its way abroad. It was donated to the Norwegian ship owner S. Skauen, and registered as LN-FAP. During the autumn of 1939, LN-FAP saw brief use with the Widerøes Flyveselskap aviation company. Following the German invasion of Norway, LN-FAP was placed in storage, not emerging until 1947. It was reregistered as LN-FAP on 29 July 1947. Upon landing on the icy surface of Lake Utrovatn, the GV-38 was severely damaged due to wind-shear. The propeller and undercarriage was destroyed, with the engine mount being displaced. Neither pilot nor passenger was injured. The GV-38 was repaired, but suffered another landing accident on 8 December, with the undercarriage and fuselage suffering slight damage. The cause was pilot error. Repairs were quickly completed. However, on 14 March 1950, another accident occurred. While taxiing, the propeller hit a vertical wooden pole, splintering upon impact. The GV-38 was disassembled, and placed in storage in a garage at Valdres, where it was destroyed in a fire on 6 September 1952 along with the sole Norwegian Rearwin 9000L, LN-EAR (c/n 576-S). For some unknown reason, LN-FAP was not cancelled from the register until 1959.



LN-FAP seen in late 1939 at the Fornebu seadrome. Photo: via Ole G. Nordbø



LN-FAP seen following the end of the war. The new owner Hans-G. Lund, is standing in front of the GV-38. Photo: via Kay Hagby

R 26Jun 1939 to AB Götaverken, Gothenburg

Ar11Jul 1939 as sold in Norway

R 13Jul 1939 as LN-FAP for S. Skaugen, Oslo

9Sep 1939 sold to Hesselberg-Meyer, Oslo. Loaned to Widerøes Flyveselskap A/S, Oslo

B 24Feb 1940 at Vannsjø is, near Moss

Apr 1940 Stored following German invasion of Norway

5Mar 1941 sold to Den Norske Automobilfabrikk A/S, Oslo/Hesselberg-Meyer

B 5Sep 1946 in a disassembled state at Gardermoen airport

B 10Jul 1947 74 flight hrs

R 29Jul 1947 to H.G. Lund, Oslo

B 19Nov 1948 at Fornebu airport. Not approved

B Jan 1949 Approved

H 14Mar 1949 landing accident at Utrovatn. Repaired

20Oct 1949 sold to Valdres Aero Club, Fagernes. Named 'Valdres Bataljon'

H 8Dec 1949 landing accident at Olsjøen, Valdres. Repaired

B 12Dec 1949 at Nystuen following repair of the undercarriage. Approved

H 14Mar 1950 taxiing accident at Utrovatn. Consigned to storage

F 6Sep 1952 destroyed by fire at Valdres

Ar11Jun 59

SE-AHG (c/n 8)

Despite a fairly large number of owners, SE-AHG has survived and is still gracing the skies. In 1963, its Le Blond engine was removed, and replaced with a Continental C-90 engine. The GV-38 is currently owned by the Göteborgs Veteranflygsällskap (Vintage Aviation

Society of Gothenburg). When it is not flying, the GV-38 can be found at the Aeroseum, north of Gothenburg.



The world's only flyable GV-38, SE-AHG. Photo: via GVFS

R 3Apr 1939 to AB Götaverken, Gothenburg

Unknown date sold to Göteborgs Aeroaktiebolag, Gothenburg

15Jul 1942 sold to Å. Hallner, Stockholm

23Jul 1943 requisitioned by Flygvapnet

24Sep 1943 returned after accumulating 45 hrs and 50 min during 88 flights

30Oct 1944 sold to General Aero

Jan 1946 sold to T. Andersson, Linköping

13May 1947 sold to O. Wallin, Bofors and B. Persson, Gothenburg

21Jan 1953 sold to N. Fröding, S.R. Ahlberg, K.E. Gustavsson, Figge Bergman, S.T.L.

Larsson, all Västerås, and A. Fredriksson, Gothenburg

Unknown date sold to A. Fredriksson, Gothenburg

21Jun 1956 sold to S.I.A. Olsson, Mangen

25Jun 1963 sold to L. Lundblad, Stockholm

Jun 1963 change of engine, Continental C-90 fitted

4Aug 1964 sold to B. Råland, Stockholm

Ar4Jul 1968

R May 1972 to B. Högberg, Uppsala

Jun 1978 sold to T. Peterson, Västerås

22Jun 1998 sold to Göteborgs Veteranflygsällskap, Hisings Backa

SE-AHH(c/n 9)

The final years of SE-AHH's flying career was spent in the far north of Sweden. In 1951, the GV-38 was acquired by Knut Liljedahl, Gällivare. Unfortunately, SE-AHH was written off in a crash 18 months later. The exact circumstances of the crash are (not yet) known. The engine was offered to R, von Essen in 1965 as part of a load of various aircraft parts. The airframe of SE-AHH was dumped at Gällivare, remaining on a rubbish tip until recovered by Göthe Johansson, one of the the founders of the Arlanda Civil Aviation Collection, in 1977, along with the remains of Cessna C-145 Airmaster SE-ANO. The badly corroded remains of the GV-38, consisting of rougly 20 to 25 per cent of the fuselage frame, remained stored at

Arlanda until 2008, when they were junked. The author tipped over the frame, seeing large amounts of rust literally falling as snow from the steel tubing. It was, sadly, beyond rescue.



A rare photo of GV-38 SE-AHH. Photo: via Per Björkner



The mortal remains of SE-AHH, as seen in 2008. Photo: Jan Forsgren

R 3Apr 1939 to AB Götaverken, Gothenburg 14Nov 1939 sold to Göteborgs Aktiebolag, Gothenburg 24Nov 1945 sold to Aeroklubben i Göteborg, Gothenburg Eo15Oct 1946 to Ostermans Aero AB, Stockholm 11Dec 1946 sold to P.O.I. Tigerström, Tranås Eo13Jun 1947 to Ostermans Aero AB, Stockholm 27Jun 1947 sold to Umeå Aero Club, Umeå 16Jan 1950 sold to K. Ohlsson, Boliden 17Jul 1951 sold to K. Liljedahl, Gällivare H 7Dec 1952 crashed into Kaitum River, Kiruna Ar 21Feb 1958

SE-AHS (c/n 10)

This was the second GV-38 to be purchased by the Västerås Aero Club, the first being SE-AHE. Apart from a brief Flygvapnet sojurn, the GV-38 belonged to the Västerås Aero Club for most of its active career. On 12 May 1954, SE-AHS was bought by Nord-Flyg, Eskilstuna. A mere two weeks later, it was written off in a crash. Surprisingly, no post-accident report can be found in the archives of the Swedish Civilian Aviation Administration. The only document found is a letter from the Örebro City Police, dated 4 November 1954, and sent to the Civilian Aviation Administration. The letter states that: "No investigation has been made, due to the large amount of serious crimes committed in the area, which have used up all available resources."



Swedish winters can be harsh, with skis usually replacing wheels. SE-AHS is seen here sometime in the early 1950s. Photo: via Per Björkner

R 18Aug 1939 to Västerås Aero Club, Västerås 23Jul 1943 requisitioned by Flygvapnet 26Jul 1943 transferred to Wing F 9 at Gothenburg-Säve 24Sep 1943 returned, having accumulated 66 hrs and 30 min during 156 flights Eo12May 1954 to Nord-Flyg, Eskilstuna H 26May 1954 at Norra Finnfall, Kopparberg

SE-AHT (c/n 11)

Registered to the Eskilstuna Aero Club in August 1939, SE-AHT was purchased with the aid of government and KSAK funds. However, GV-38 SE-AHE had been loaned for a short time from Västerås Aero Club during the spring of 1939. Already in 1942, SE-AHT was sold to Västerås Aero Club. However, fuel rationing, poor finances and not enough student pilots meant that the GV-38 was placed in storage when the Certificate of Airworthiness expired in late 1946. SE-AHT was not struck from the register until 1954.



SE-AHT seen when operated by its initial owner, Eskilstuna Aero Club. Photo: via Per Björkner.

Two years later, the GV-38 was reregistered as SE-AHT for Harry Olsson, Svanesund. Olsson was known as "The Flying Farmer", with a 150 metre long airstrip on his farm at Tjäderöd, Orust Island. During the summers, the airstrip was sufficient, if Olsson was flying alone. During the winters, the icy fiords functioned as temporary airfields.

On 1 November 1958, Harry Olsson and the passenger Gustav Andersson were killed, when the GV-38 crashed at Orust. The following day, the newspaper *Göteborgs-Posten* wrote that: "...the airplane went into a spin and then crashed nose-first into the side of a mountain. --- The plane was completely demolished, with the tail high in the air. No doors (sic) could be opened, and we had to bend open the area around the cockpit."

Unfortunately, no post-accident report can be found in the Civilian Aviation Administration's Archives.

R 18Aug 39 to Eskilstuna Aero Club, Eskilstuna 30Jun 42 sold to Västerås Aero Club, Västerås 23Jul 43 requisitioned by Flygvapnet

11Sep 43 returned, accumulated 19 hrs and 30 min during 56 flights Lu17Sep 46
Ar19Nov 54
R 30Aug 56 to H Olsson, Svanesund
H 1Nov 58 at Tengen, Svanesund (Orust)
Ar8May 59

SE-AHU (c/n 12)

This particular GV-38 spent its entire working career in the north of Sweden, and is, appropriately, preserved at Jämtlands Flyg- och Lottamuseum at Optand near Östersund. Its first owner, Östersund's Aero Club, was formed in 1937, initially consisting of an aero modelling and glider section. In the summer of 1939, a GV-38 was acquired. It was planned to use SE-AHU for primary flight training for 15 prospective pilots. However, war broke out before the GV-38 was delivered in early September 1939.

In 1940, SE-AHT was used by KSAK for flying training at Ekeby outside Eskilstuna. Curiously, this particular GV-38 was not requisitioned by Flygvapnet during the war.

During the spring of 1951, Östersund's Aero Club initiated a working relationship with the newspaper Östersunds-Posten, commonly known as ÖP. On both sides of the fuselage, the slogan "Ö-P. STÖRSTA AFTONTIDNINGEN NORR OM STOCKHOLM (Ö-P. THE BIGGEST NEWSPAPER NORTH OF STOCKHOLM). Newspaper-carrying flights were made in March 1951 between Östersund and Åre, with Stig Bjurtoft piloting the GV-38. The following month, similar flights were made to Gäddede and Strömsund. (It is unclear how many newspapers were carried, but it can't have been that many, considering the load-carrying limitations.) In April 1951, ÖP announced a name-our-airplane contest. Of the 200 suggestions, the name Jämten (a slang word for the people living in the Province of Jämtland) was chosen as the winner. The winner, Helge Åvall, Östersund, secured 25 kronor for his efforts. Among the other name ideas, Fågel Blå (Blue Bird), Fjällvinden (Mountain Wind) and Fjällkometen (Mountain Comet) can be mentioned.



SE-AHU seen sometime in the early 1950s. Photo: via Jan Strömberg

In 1955, SE-AHU was sold to Luleå Aero Club, which barely one year later sold the GV-38 to Olle Andersson and Erik Wedin. SE-AHU remained airworthy until 23 March 1967, when it was damaged by high winds. The airplane was disassembled, and placed in storage. Andersson entertained vague plans to restore the GV-38 to airworthiness, which, in the event, did not happen. Plans to sell it to an aviation museum in Spain came to nothing.



SE-AHU seen following restoration. As described in the main text, another GV-38 registered as SE-AHU exists in Gothenburg. Photo: via Jämtlands Flyg- och Lottamuseum

SE-AHU remained in Sweden, being purchased by the Gothenburg-based Kontaktgruppen för Flyghistorisk Forskning (The Contact Group for Aviation Research), with Götavetken providing some of the necessary funds. It was planned to restore the aircraft to flying condition.

On 4 July 1985, an EAA build permit was obtained, with the c/n being 12-525. The build permit was not renewed, expiring on 30 June 1990. Four years later, on 3 July 1994, the GV-38 was purchased by Jämtlands Flyg- och Lottamuseum, and subsequently restored in the colours of Östersunds-Posten.

Interestingly, another GV-38 carrying the registration SE-AHU exists, as described below.

R 7Sep 1939 to Östersund's Aero Club, Östersund
18Jun 1955 sold to Luleå Aero Club, Luleå
23Oct 1956 sold to R.M.B. Andersson, Sundsvall & E. Wedin, Härnösand
B 29Aug 1966
23Mar 1967 damaged in high winds
Lu30Sep 1967
Ar7Dec 1971
Bt4Jul 85

SE-AHW (c/n 13)

This GV-38 was bought by Uno Ranch, a motorcycle dealer in Gothenburg. During the war, Ranch flew many hours on target flights on behalf of the Swedish armed forces. Following a succession of owners, SE-AHW was bought by the Hoting Aero Club. Spares were purchased from Västerås Aero Club. During an inspection in 1957, the wings were found to be in such poor condition, that the Certificate of Airworthiness was revoked. Unfortunately, no photograph of SE-AHW has been located.

R 30Sep 1943 to Uno Ranch, Gothenburg
23Jul 1943 requisitioned by Flygvapnet
24Sep 1943 returned, accumulated 43 hrs and 35 min during 95 flights
20Jun 1946 to AB Damkappor, Kristianstad (G Lithander)
5Jun 1950 to Figge Bergman, Gothenburg
21Jun 1950 to S.O. Nordin, Hoting
6Mar 1952 to Hoting's Aero Club, Hoting
8May 1957 to S.E. Wedin, Härnösand
Lu23Jul 1957

SE-AHX (c/n 14)

Bought in 1941 by the well-known pilot Hans Peterson, SE-AHX was primarily used for primary flight training. Even if most civilian aviation was banned during the war (airline traffic and flights on behalf of the Swedish armed forces were exempted), Petersson survived by leasing his GV-38 to the Aero Clubs in Gävle, Karskoga, Bofors, Rommehed and Östersund, with numerous target flights being performed. Following the end of the war, Peterson resumed his flight training business. However, he soon disposed of SE-AHX. After the Certificate of Airworthiness had expired, the GV-38 remained parked in the open at Ljusdal. The wings were eventually obtained by Olle Andersson, who in 1991 sold them to the Arlanda Civil Aviation Collection. The wings will be fitted to SE-AHD.



SE-AHX seen at Orsa. This particular GV-38 remained in Hans Peterson's ownership for almost six years. Photo: via Per Björkner



Both of SE-AHX's wings have survived, and will eventually be fitted to SE-AHD. Since this photograph was taken, the wings have been recovered. Photo: Per Björkner

R 19Nov 1941 to Hans Peterson, Orsa 23Jul 1943 requisitioned by Flygvapnet 13Aug 1943(?) returned, accumulated 36 hrs during 44 flights 4Feb 1947 to A. Hansson, Kärvåsen 30Mar 1948 to Edsbyn's Aero Club, Edsbyn 2Aug 1948 to S. Elfsborg, Ljusdal Lu11Jul 1950 Ar31Dec 1956 as scrapped

SE-AHY (c/n 15)

This GV-38 was bought by Gävlebygden's Aero Club, which used it for target flights. In 1963, SE-AHY was obtained by magician and aircraft collector Lennart Svedfeldt. The following year, Svedfeldt overturned on landing, with the GV-38 ending up in a hedge. Svedfeldt was uninjured, with the GV-38 suffering a broken propeller and damaged fabric. According to his son, Björn Svedfeldt was slightly embarrassed, failing to report the incident to the Civilian Aviation Administration. Instead, he dismantled the GV-38, storing it in a barn until 1973, when it was assembled and placed on display at Svedfeldt's private air museum at Ugglarp. Apart from a new propeller being fitted, and repairs to the fuselage fabric, the GV-38 has not been restored.



SE-AHY seen at Avan airfield, then the home of Gävlebygdens Aero Club, either in 1946 or 1947. Photo: Kurt Eklund via Per Björkner

R 27Jan 1943 to AB Götaverken, Gothenburg 8Dec 1943 to Gävlebygden's Aero Club, Gävle 20Sep 1946 to S. Englund, Ulvsunda 22Jun 1949 to Y. Paulsson, Aspudden 22Nov 1954 to S. Englund, Mora 17Nov 55 to A. Nilsson, Östra Sallerup 14Aug 1957 to B. Wikström, Kågeröd Eo1964 to L. Svedfeldt, Ugglarp H5Oct 1964 at Ugglarp Lu30Sep 1965 Ar30Apr 1968



SE-AHY seen after being purchased by Lennart 'Svedino' Svedfeldt. Photo: via Björn Svedfeldt



Lennart 'Svedino' Svedfeldt in front of SE-AHY. Photo: via Björn Svedfeldt



SE-AHY seen following the landing accident. According to Björn Svedfeldt, his father did not report the mishap to the Swedish CAA, instead placing the aircraft on display at his private aviation museum at Ugglarp. Photo: via Björn Svedfeldt

SE-ALX (c/n 16)

This was the second-to-last GV-38 built, and also the first to be written off. The crash occurred on 1 August 1948. Remarkably, no post-accident report can be found in the archives of the Swedish Civil Aviation Administration. The crash appears to have gone unnoticed to the media as well, with no article reporting the crash appearing in the contemporary newspapers.



SE-ALX, most likely photographed at Wing F 7 Såtenäs in 1946. Photo: Enar Eriksson via Svensk Flyghistorisk Förening

R 2March 1943 to Å. Hallner, Stockholm" 4Feb 1946 sold to T. Andersson, Linköping 20Oct 1948 sold to Å. Abrahamsson, Stockholm H 1Aug 1948 Ar31Jan 1950

SE-ALY (c/n 17)

The final GV-38 built was the second aircraft of the third production batch. It remained unsold for several years, eventually being purchased by a private individual in 1946. On 27 June 1949, the magazine editor Ingemar Allercranz bought the GV-38. Allercranz intended to use SE-ALY for business travels. They day after purchasing the GV-38, Allercranz obtained his pilot's licence from Ostermans Aero AB, Bromma airport. Tragically, he was to lose his life in his newly-acquired aircraft only a few days later.

On 5 July 1949, Ingemar Allercranz took off from Ängelholm, intending to fly to Stockholm, routing via Halmstad and Värnamo before making an intermediate stop at Jönköping. Allercranz' wife, Renata, was travelling with him. However, the GV-38 crashed at Appelås some four km south of Skillingaryd at 10.15 hrs. According to eyewitnesses, the engine had began to run rough, with the pilot attempting a forced landing. After making a steep turn at low altitude, the aircraft stalled and hit the ground. Ingemar Allercranz died hours later, with Renata being seriously injured.

The post-accident report pointed towards Allercranz limited experience, having accumulated a mere 22 hrs and 40 min prior to the accident. The GV-38 had struck the ground nose-first, with the fuselage breaking off in front of the pilot's seat, completely smashing the nose section. The right wing had broken off downwards, with the propeller being destroyed and the engine cowling being badly deformed.

SE-ALY had been flown for a total of 55 hrs and 15 min, not much for a seven-year old aircraft.



The post-crash remains of SE-ALY. Photo: Swedish National Archives

R 2Mar 1943 to AB Götaverkenm Gothenburg 8Feb 1946 sold to T. Andersson, Linköping 27Jun 1949 sold to I Allercranz, Stockholm H 5Jul 1949 at Appelås, Skillingaryd Ar14Dec 1949

'SE-AHU' (c/n 18)

Even if Götaverken only built a total of 14 GV-38s (c/ns 4 to 17), one GV-38 has been documented as c/n 18! The exact story behind this particular aircraft is fairly unclear, although the following information is known. The owner of SE-AHU (c/n 12), Olle Andersson, loaned the GV-38 for display at an aerospace exhibition in Gothenburg, named AIRBORNE 1976. The GV-38 which arrived was built-up from "components of several different aircraft" as stated in correspondence between the Civil Aviation Administration and the Jämtlands Flyg- och Lottamuseum. The GV-38 was marked as SE-AHU, but is evidently not the same aircraft as the GV-38, also marked as SE-AHU, on display at the Jämtlands Flyg- och Lottamuseum.

As stated in the text for SE-AHU (c/n 12), Olle Andersson had intended to restore SE-AHU to flying condition. A build permit was obtained from the Swedish Chapter of the Experimental Aircraft Association (EAA), in which the c/n 18-915 was provided. (The 915 suffix is the EAA project sequence number). The rebuild was never completed, with the build permit not being renewed due to "certain inconsistencies regarding the ownership". For some time, a GV-38 has been hanging from the ceiling in the old Götaverken factory. The aircraft has been stripped of its fabric, with an engine being fitted to the airframe. This particular GV-38 is now under the care of the Vintage Aviation Society of Gothenburg (GVFS), being on

public display at Aeroseum. According to GVFS-founder member Ralph Duell, this GV-38 is the real SE-AHU (c/n 12).



The GV-38 seen when hanging from the ceiling at the former Götaverken's assembly hall. Photo: via GVFS



Today, the GV-38 is located at Aeroseum, being cared for by GVFS. Photo: Jan Forsgren $\,$

Technical Description

This technical description was originally published in the aviation magazine *Flyg* No. 11/1938.

Fuselage

The fuselage is constructed from welded chrome molybden steel tubing. The front fuselage in front of the fire wall is covered with aluminium sheets, with the rest of the fuselage being fabric-covered. The chrome molybden tubing is coated inwardly with crude linseed oil in order to prevent corrosion. Outwardly, the tubing is coated with primer and paint.

Wings

The wings are built up from two laminated spruce spars, which are braced by means of steel tube struts. The ribs are constructed from redwood. The front and rear leading edges are covered by dural aluminium sheets, with the rest of the wing being fabric-covered. On some aircraft, the main spars are built as one unit, thus not being laminated. On some aircraft, the forward leading edge is covered by veneer. Each wing is braced to the fuselage by means of a V-shaped profiled lateral strut. The spar of the ailerons are built from spruce, with the ribs are built from redwood, with the ailerons being fabric-covered.

Empennage

The stabilizer, fin elevator and rudder are built from chrome molybden steel tubing, and fabric-covered. The stabilizer can be adjusted from the front seat.

Undercarriage

The undercarriage consists of two streamlined shaped shock absorbers and two axles, which are attached to two V-shaped fabric-covered streamlined tubes which are welded to the fuselage. The aircraft is fitted with a tail wheel.

Interior

A door (which can be locked) is fitted to the right-hand side of the enclosed cabin, and a sliding window to the left-hand side. The side and roof windows are constructed from cellone. The cabin is fitted with two sets of flight controls, with the seats being placed in tandem. The seats are fitted with a back rest. The height of the rear seat is adjustable, with space for luggage beneath the seat. A small compartment is located behind the rear seat, where a first aid kit, flight log etc can be carried.

Equipment

The aircraft is fitted with a townend ring (engine cowling), exhaust collector, accumulator, lanterns, mechanical wheel brakes on the main wheels and a tail wheel. The flight instruments consists of a compass, air speed indicator, altimeter, turn indicator, revolution counter, oil pressure gauge, oil temperature gauge, clock and an engine magneto switch. A fire extinguisher is also fitted. Cables are fitted within the wings for the lanterns along with reinforcements for the fitting of landing lights, although these are not normally fitted. If

necessary, lanterns can be fitted, but then an accumulator has to be connected. The accumulator can be fitted in front of the engine firewall, above the oil tank.

Engine

The aircraft is fitted with a five-cylinder, air-cooled 90 h.p. radial engine of the type Le Blond 5F, which is built by the Ken-Royce Engine Company, located at Fairfax Airport, Kansas City, Kansas, USA.

General

All steel components are treated against corrosion, either through painting or cadium plating. The wooden components are varnished with elastic varnish. The fabric-covering are covered with three layers of primer (dope) and twice with "Finishing Dope". The fuselage, wings, rudders etc are light blue, and wing struts in silver. The paint used is supplied by Wedevåg.

Engine overhaul shall be performed at One-hundred hour intervals. The valve mechanism and cylinders are inspected and the piston rings replaced. Basic overhaul shall be performed at Four-hundred hour intervals. Spark plugs are inspected and if necessary replaced at Twenty-five hour intervals. If the engine has not been run during the past two days, the spark plugs in the two lower cylinders shall be removed and cleaned. Before all flights, the valve mechanism shall be thoroughly lubricated with heat-resistant good quality lubrication grease.

Götaverken GV-38 Technical Data and Performance Characteristics

Engine: One 90 h.p. Le Blond 5F

Wingspan: 10,65 m Length: 6,96 m Height: 2,06 m Wing area: 15,40 m²

Weight empty: 440 kg Weight loaded: 680 kg Maximum speed: 190 kph Cruise speed: 170 kph Landing speed: 61 kph Service ceiling: 4,570 m



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Despite placing many advertisments in contemporary Swedish aviation magazines, Götaverken did not succeed in selling more than a few GV-38s. In all likelihood, this was due to the refusal of the KSAK (Royal Aero Club) to accept the GV-38 as a standard aeroplane for Swedish Aero Clubs, as well as the outbreak of war in September 1939. The advertisments on this and the following page were originally published in *Flyg* magazine in 1940.







BYGG

under långa vinterkvällar en s. k. flygande modell i skala, 1/15, av

Götaverkens nya sportplan G. V. 38



Spännvidd 71 cm. Byggsatsen innehåller ritning i full skala, tryckta balsaflak, överflöd av list, japanpapper, lim, klister, gummi, färdiga hjul m. m.
Byggsatsen åtföljes av utförlig arbetsbe-

skrivning, är av svensk tillverkning — en wentzelmodell — och kostar endast

Kr. 4:- + porto.

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An nostalgic photo, showing SE-AHG on floats in 1974. The changed fuselage lines due to the Continental engine and lower fin are in clear evidence. This particular GV-38 is currently the sole airworthy aircraft o fits kind. Photo: Leif Fredin