



Count Carl Gustav von Rosen of Sweden
(Photo — Courtesy of Knut Brinck,
Swedish Aviation Historical Society)

Von ROSEN and the MINI-WARPLANES

By MAUNO SALO

Mini warplanes have been much in the news in recent years, possibly due to the environment in which airplanes had to work in certain situations, but also because of the major escalations in cost of airplanes of all types. Two very small aircraft types have shown up in news from Biafra and from Taiwan, which remind us that they were the brain children of two San Diego designers, both of them "foreigners" by birth who emigrated to the United States following World War Two. And both airplanes began life in the same spectrum as many of the successful homebuilts which have been developed since the War.

Bjorn "Andy" Andreasson's little BA-7 surfaced in the late 1950s as an all-metal ugly duckling homebuilt. But by 1964 it had been considerably refined, with a military look about it and the suggestion that it could be used as an anti-helicopter fighter. This last would require the suspension of light-caliber machine guns or small rockets beneath the wings. Swedish, Norwegian and German army representatives looked at and expressed interest in this economical airborne weapon, but nothing seems to have come of this interest.

The other was the design of Ladislao Pazmany, an Argentinian of Hungarian origin, whose homebuilt gained prominence by being selected as a project for the Chinese Air Force Aero Industry Development Center at Taichung, Taiwan. The basis for the project was the revival of the aircraft industry in Taiwan and possible use of the Pazmany design as a primary trainer. The Fletcher "Defender" is another example of the mini warplane concept, designed by John Thorp, but it has had no success in being selected for military use as yet.

In the Spring of 1969 newspapers related that Swedish mercenary pilots had attacked oil installations and a power station in Nigeria

with lightplanes of "unknown origin" firing rockets. Soon afterward Nigerian airfields were raided to take away the pressure of marauding MiG-17's and Ilyushin bombers that were bombing civilians in terror raids into Biafra. Their success was remarkable; 11 Mig's and Il's were successfully rocketed while still at home base.

By close attention to the news it was determined that these lightplanes were MFI-9's. Five of them, original registry Swedish, were allegedly sent to France as "training planes." Somehow they were camouflage painted without national insignia, fitted with rocket rails and tubes, and found their way to Biafra. Four others later found their way also, sold by private owners. The lot had registries:

SE-EUE, SE-EUL, SE-EUN, SE-EWE, SE-EWF and

SE-EFU, SE-EUB, SE-EUP, SE-EWB.

It appeared that the man responsible was Count von Rosen, a legendary airman from an equally legendary family residing in Malmo, Sweden. Count von Rosen had been running nighttime supply missions into Biafra in support of the starving population. His mercy missions were made in DC-7C's (SE-ERD, SE-ERE, SE-ERI and SE-ERK), some of which had been picked up in Burbank, California as late as May 1969.¹ American news sources also claimed that he had four DC-6's for the operation but Swedish authorities denied it. Another source claimed that he had seventeen Swedish Minicon lightplanes and a couple of T-6's as fighter bombers.²

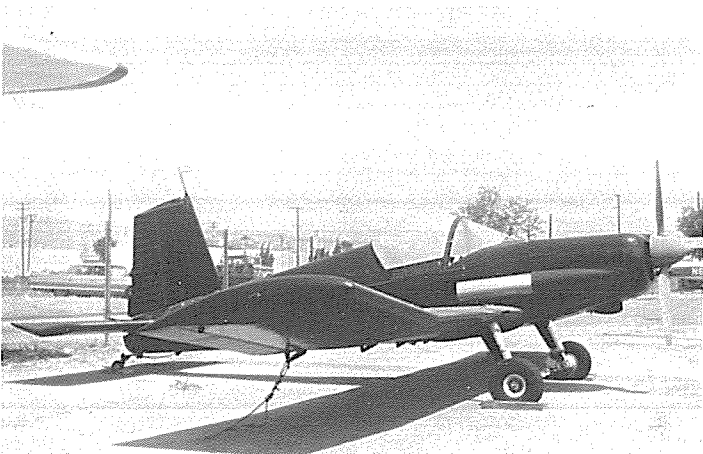
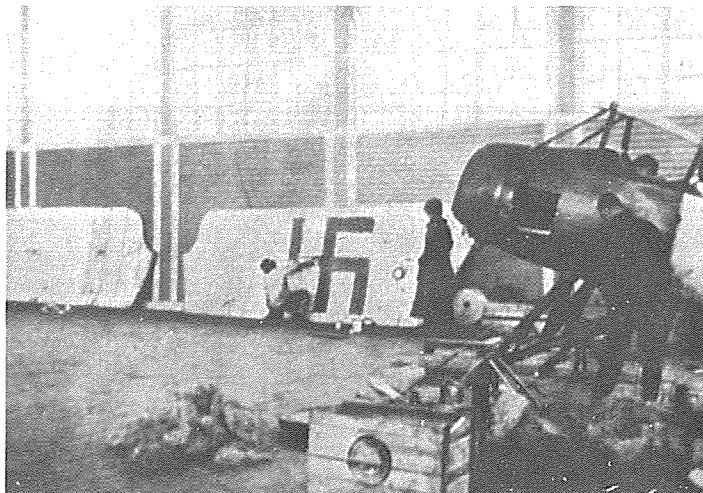
Count Carl Gustav von Rosen is an adventurer following in the footsteps of his father, Count Eric von Rosen. Of itself that would make the younger von Rosen already a legend. However, the younger von Rosen made his own legend; he was in Ethiopia

Below, Andy Andreasson with his newly completed BA-7 at San Diego, Calif. in 1958. Engine, Continental A-75, (Photo — John Underwood)



The first of the pre-production prototype Pazmany PL-1A's, XT-5701, -5702 and -5703 at CAF Academy. (Photo— Lt Col Rick Loeffler, USAF)





in October 1935 when it was attacked by Mussolini's forces. He then organized an air ambulance service for Ethiopian casualties. Following WWII he was invited to become the chief of the Ethiopian Air Force, which was then virtually non-existent as a force. Von Rosen accepted, and no doubt that partly accounts for the IEAF use of Swedish SAAB Safir and B.17 light bombers. There were other and many doors open to him in Africa.

During WWII the Count's sympathies were with little Finland in its David and Goliath struggle against the Soviets beginning in 1939. Along with Captain Mac Hamilton he secured the DC-2, an ex-KLM airliner, formerly PH-AKH for Finnish forces.³ It was converted into a bomber and was flown on one not too successful bombing mission, with the Count at the controls, but one of the Wright Cyclone engines froze and he barely got the airplane back to base, where it waited during the rest of the Russo-Finnish War for new engines. He also helped secure the two Koolhoven F.52 biplanes (PH-ASW and PH-ASX) for Finland's minute force which became KO-129 and KO-130.

Von Rosen connections with Finland go back much further. The elder von Rosen was a safari man, having traveled extensively and hunted in Africa early in the century. Eric von Rosen may be considered the father of the Finnish Air Force since it was he who presented a Thulin-Morane parasol to the White Forces in Finland in its War of Independence of 1918. On March 6th, 1918, a historic date for Finland, Lt. Nils Kindberg, with Eric von Rosen as passenger, piloted the parasol from Umea, Sweden to Vaasa, Finland. On the undersides of its wings was the blue swastika which von Rosen had adopted as the symbol of good luck. And this became the insignia of the Finnish Air Force until 1945 when it was forbidden by the Allied Armistice commission as a symbol of Naziism!

The Commission was wrong! The swastika is one of the earliest symbols to have been made by man, and one of the most widespread among primitive peoples. It is found on all continents except Australia, and is the symbol of sun-gods, from Apollo and Odin to Quetzalcoatl.⁴ Other references describe it as a Greek cross (four equal arms at right angles) with each arm bent counter-clockwise in a right angle.

An historic photo, taken in late February/early March 1918, shows the painting of the Finnish emblem on the wing lower surface of the Thulin-Morane monoplane at Umea. This first military airplane of Finland is registered as the F.1 and March 6th is the Anniversary date of the Finnish Air Force. In this photo, and in the accompanying photograph of a Messerschmitt Me.109, recently restored for the Finnish Air Force (planned) museum, the Finnish emblem, blue on white background, has the bent arms of the cross extensions parallel and perpendicular to the line of flight on the fuselage and wings, in contrast to the use of the Nazi swastika. The Nazi "Hakenkreuz" was only placed on the vertical tail of German airplanes and the arm extensions were at 45 degrees to the line of flight. It was black, sometimes outlined in white or yellow.⁵

The ultimate end of the Biafran bid for independence is history. Count von Rosen's pilots carried tons of foods and medicines to the peoples of Biafra in one of the most heroic missions recorded but the end came in early 1970. Von Rosen once observed that, attacking Biafra is like flailing away at a balloon, "When you

Above left, painting the swastika on Finland's first airplane, the Thulin-Morane parasol, March 6, 1918, now FAF's Anniversary date. (Photo — courtesy of author)

The BA-7 in 1960. The rudder was notched and vertical fin added, engine completely cowed, and fairings added to landing gear legs.

In 1961 the vertical tail had been completely revised and the rudder balance now appeared at top. Canopy visibility about 180 degrees. (John Underwood)

The Fletcher FD-25 "Defender," N91316, at Fullerton Mun. Airport, Calif., April 1972. Black with faded orange spinner and lettering. Exhaust augmenters installed both sides. (Salo)



MFI-9 Jr., SE-201, June 1964. Color: yellow with red spinner, wing and stabilizer tips. Engine— Continental O-200. (Nick Nillson, SAHS)



The MFI-9 Jr., SE-202, in June 1964 at Bulltofta Airport, Malmo, Sweden. Color: green with grey undersides. (Photo by author)

squeeze it from one side, it expands in a different direction.” The military pilots he led had indeed helped to keep Biafra alive in nearly 30 months of futile and bitter warfare but the end was inevitable.

Andy Andreasson came to the U.S. after WWII and worked for Convair in San Diego as a control systems engineer. He designed and built the BA-7 in 1958 and in 1962 he returned to Sweden as Chief Engineer of Malmo Flygindustrie, a small diversified manufacturer of plastic products and sailboats with aircraft as a sideline. A small production run of his design was begun. They were sold as one- and two-place touring/training airplanes, powered by the 100 hp Continental engine. A license for manufacture was procured by the Bolkow firm in Germany, for marketing outside the Scandinavian countries.

Andreasson's BA-7, from which the MFI-9 stems, first flew on 10 October 1958. It had a span of 23 feet, length of 19 feet, and its airfoil was NACA 23008.5. He used magnesium skin on the prototype wings and fuselage, and his first engine was a 75 hp Continental A-75. Several versions of the rudder and fin were tried. In his Swedish production an improvement in visibility was made by using transparent screen to the rear of the crew, a vital feature for its later purpose.

PAZMANY PL-1

The other small airplane, the Pazmany PL-1 hasn't seen much

romantic use, at least as yet. The Taiwan based Chinese Air Force had perhaps as many as 38 airplanes in its plan for manufacture. This design, too, came from San Diego.

Ladisloa Pazmany is an Argentinian of Hungarian origin who came to the U.S. in 1957. He joined the Experimental Aircraft Association Chapter 14 in San Diego and proposed a low wing 2-place all metal airplane as a chapter project. Although this never came to be, a pair of hard-working individuals, John Green and Keith Forder, did build the prototype (which is still flying after some 1200 hours). It took to the air on March 23, 1962 for the first time from Orange County Airport, Santa Ana, California. Since then a number of PL-1's have been under construction as private projects in several countries besides those being built in the U.S. Several hundred sets of drawings have been sold to date.

This airplane has a wing of 28-ft. span and a 19.3-ft. fuselage with fuel stored in the tip tanks. It was designed with the help of professional engineers from Ryan Aeronautical and Convair, who spent 5000 man-hours on the project; for instance Karl Sanders, also from Argentina via Messerschmitt during WWII, worked out the aerodynamics while Carlos Garrocq worked the stress and landing gear analysis. The airplane is stressed for elementary aerobatics thus enhancing its usefulness as a beginner's PT.

Selection of the Pazmany PL-1 by the CAF Aeronautical Research Lab came about after reviewing currently available types. A limited budget had put the brakes on outside purchases.



Seven of the PL-1B built by the Chinese Air Force in Taiwan. (Photo - Salo)

General Ku, head of the Air Technical Bureau and an avid reader of aviation journals, came up with the idea of investigating homebuilt types available. Moreover the CAF had a fairly large number of skilled craftsmen and engineers available for immediate duty. At the recommendation of Col. Richard Robinson, USAF Senior Advisor to the CAF ARB, the PL-1A was selected as the one most suitable to their needs.

The prototype, XT-5701, was built under a crash program in 100 days and first flown 26 Oct. 1968, in time for Gen. Chiang Kai-shek's 82nd birthday celebration. Three pre-production prototypes were put in service test and instructor training, with another 35 production aircraft to be completed within 12 months.

The 35 were built by the Aero Industry Development Center at Taichung and perhaps 6 to 10 were used in a Civil Air Patrol type of program to encourage Chinese youth to engage in aviation. These were built as PL-1B's, with a 150 hp Lycoming O-320-E2A engine in place of the 125 hp O-290D. An additional ten were placed in construction for the Chinese Army and another 40 were projected for the Australian government.

Meanwhile, Pazmany's PL-2, N1673 was flown in April, 1969 after about five years of refinement engineering. There is little to distinguish it in appearance from the PL-1 except for the more roomy cockpit, a larger vertical tail, and the dihedral was increased from 3° to 5°.

The South Vietnam Air Force also purchased drawings for the PL-2, along with some materials and equipment. A prototype was constructed in about four months; the tail surfaces were built at Da Nang and Nha Trang, the fuselage at Bien Hoa, and the wings and control surfaces at Tan Son Nhut (Saigon). Final assembly was at Tan Son Nhut airfield and its first flight was on 1 July 1971; it was registered at TP.001. As the South Vietnamese developed their manufacturing skills at least ten more were projected for construction as primary trainers.

The Royal Thailand Air Force also purchased drawings and materials for two PL-2's. South Korea did likewise but purchased all of the components, from rivets to the complete engine, to be assembled by the National Defense Research Laboratory (NDRL). Thus, for the small Asiatic countries the Pazmany homebuilt program of San Diego, Calif., has become a fulltime business. With a terrible ache in the pocketbook from the Vietnam losses in expensive aircraft and super-trained pilots, a look into simplified design might be warranted by larger, affluent countries like the U.S.

ACKNOWLEDGEMENTS:

Thanks are due to Ladislao Pazmany, John Underwood, and members of the Swedish Aviation Historical Society, especially Hakan Lundborg.

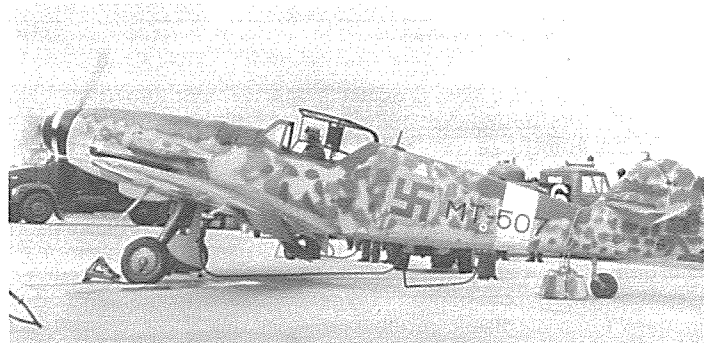
ABOUT THE AUTHOR

Mauno Salo's enchantment with aviation came in Duluth, Minn. and his first ride in an airplane was in a Ford Trimotor there on skis. He migrated eventually to California to work with Douglas-El Segundo, Lockheed, Northrop and now with North American Rockwell. He imported a Focke-Wulf Stieglitz in 1962, has another in restoration.

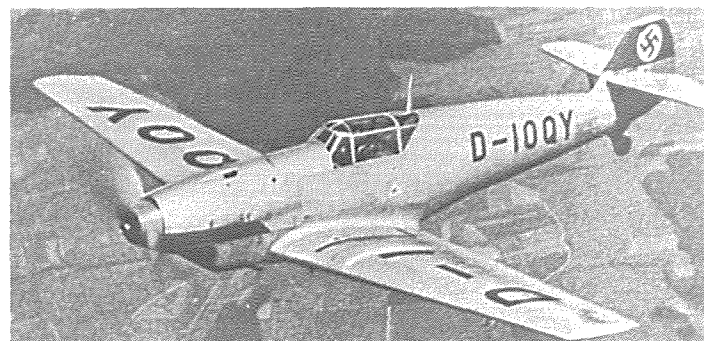
Salo has been a contributor to aviation publications for twenty years, was the translator of *Fighter Over Finland* (from the Finnish language (by Eino Luukkanen, edited by William Green, MacDonald, 1963), and a co-founder and contributor to *Suomen Siivet* (Finnish Wings), the aviation history journal of Finland. Beside participating in the Steering Committee for the 1st Western Aero Symposium in 1967 Mauno's other contributions to the AAHS, in the Journal, began in Volume 3 (1959), "Java Sojourn" in Vol. 12 (1967), and Tora³ in Vol. 14 (1969). He is a member of E.A.A. (Chapter 7), Cross & Cockade, and IPMS.

NOTES AND REFERENCES:

1. Count von Rosen was known to have had a price on his head for his operations in the Biafran War. The sources of his funds for the operation of the mercy airlift have been mostly church donated relief funds.
2. There were other airplanes involved in the Biafran airlift. See "Biafran Medical and Food Relief" by Richard Braun, Journal of AAHS, Vol. 15, Pages 130 and 131 for descriptions of the C-97's, also reported on in later issues under "News & Comment." Others had been Lockheed Constellations, C-47's (DC-3's) and an H-34 helicopter. At least one DC-7 with an American pilot was shot down, and the Swedish denied it was one of theirs. See also A. leNobel's account of the T-6's in the following article this issue.
3. Mauno A. Salo, "The Saga of Hanssin Jukka," *Royal Air Force Flying Review*, Vol. 17, No. 6, March 1962, pp. 31-32, illus.
4. The swastika still survives as a religious symbol in China and Japan as well as Indian tribes of North America. The fylfot (swastika) is the ancestor of many decorative motifs from the classic Greek meander (a pattern of winding or crisscrossing lines) to more elaborate forms. Ref. Funk & Wagnalls.
5. Bruce Robertson. *Aircraft Markings of the World, 1907-1954*. Harleyford Publications, Ltd., 1956.



Above, the Finnish Me109G-6/Trop of the Finnish Air Force Museum, assembled and run up for the first time in 17 years, May 1971. The Finnish emblem is of clockwise arrangement, but with arm extensions parallel to and perpendicular to the line of flight. (Photo—Eino Ritaranta)



The Messerschmitt Bf.109 V4, D-100Y, showing the Nazi swastika emblem, black on white in red band, but only exhibited on the vertical tail. It, too, was a clockwise arrangement, with the arm extensions at 45 degrees to the line of flight. (Photo — Luftwaffe, courtesy of William Green)

