German gliders and sailplanes in after-war Czechoslovakia

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Abstract. This article focuses on the transformation of gliders and sailplanes after the Second World War until mid of fifties. The starting point of this issue is inter-war period when the German gliding was the most successful in the world, because it was supported as military sport which was significantly financed by the state after 1933. In after-war Czechoslovakia a lot of German gliders and sailplanes were used by Czechoslovak glider pilots until mid of fifties. At the end of the period German technique was fully replaced by Czechoslovak types and the elementary training scheme of glider pilots was transformed from single seat gliders to two seat sailplanes.

Keywords
Gliding, soaring, gliders, sailplanes, aircraft manufacturing, after-war Czechoslovakia

1. Introduction

The development of gliding went together with the development of flying generally. After the First World War the major development of gliding took place in Germany. Due to Versailles treaty and other restrictions the military air force was forbidden. Erich Mayer, Wolf Hirth and Paul Brenner followed the tradition of Otto Lilienthal (the end of the nineteenth century) and in 1920 they introduced the first gliding competition in Wassekuppe (Rhön Mountains, eastern direction from Frankfurt am Main). This event, which uses rising flow in the atmosphere, is considered to be the starting point of modern gliding.

Czechoslovak gliding arose from the same humble conditions as German gliding. The fundamental impulse was the establishment of Masaryk aircraft foundation in 1922 (Masarykův letecký fond) and its transformation into Masaryk flying league (Masarykova letecká liga) in 1926, which promoted flying in Czechoslovakia. It enabled the
foundation of individual associations which were devoted to model constructions. Grants and fund-raising campaign contributed to the expansion of gliding. The same tendency can be seen also in neighbouring Germany when Adolf Hitler came to the power. In mid-thirties in Czechoslovakia in contrast to Germany money was put mainly into military activities because of the fear of German Nazi aggression. There was also a huge rise in number of pilots who were trained as military pilots. Unfortunately in 1939 absolute majority of pre-war Czechoslovak gliders and sail planes was either confiscated by German authorities or was not able to fly due to inconvenient conditions while storage.

3. The development of gliding in post-war Czechoslovakia

After the Second World War a tradition of Masaryk flying league branches was renewed and also new aviation clubs, which did not continued in inter-war tradition, started to exist. Countrywide aircraft organization was called Czechoslovak national aviation club (Československý národní aeroklub) and came under the authority of Ministry of Transportation. Since May there was an equipment inventory after NSFK termination and the condition of stored pre-war gliders was determined. On a number of counts only few pieces of gliders were preserved, e.g. Skaut standart in Lomnice nad Popelkou, which was being used just until 1946.

The complete majority of gliders and sailplanes in Czech lands was German origin because in Protectorate of Bohemia and Moravia huge number of German models for training of future pilots was being produced. After the Second World War also Czechoslovak gliders asked Russian marshal Ivan Konev for donation of complete equipment of aircraft for gliding school in Grunau (nowadays Ježów Sudecki, northern direction from Jelenia Góra County in Poland) which was familiar to Czechoslovak glider pilots. Already in early thirties famous pilots of Czechoslovak gliding as Ludvík Elsnic or Jan Hrbek took part in glider training. On 23rd July 1945 the donation was transported to Czechoslovakia (116 gliders, 16 sailplanes, 3 motor planes and other materials which were worth approximately 15 million Czechoslovak crowns).

In this period glider training starts. Already on 15th July 1945 there was an instructor training course in Raná near Louny consisting of 150 members. The leading personalities in this course were Antonín Půrok and Vladimír Šilhan. The sufficient amount of instructors was really important for the development of flying. Still after the Second World War the routine way of training on one-seat glider was used – the trainee started with short flights and continued with doing more challenging tasks while he was observed by instructors who controlled the flight from land, gave orders and debriefing. Trainees usually took A and B exams in their clubs and later they participated in more difficult exam C or other special kinds of training or conditional flying in country gliding schools. Country gliding schools, sometimes called country gliding stations, were situated in Raná near Louny, in Kralupy nad Vltavou or Hodkovice nad Mohelkou. In 1950 all of these schools were closed down and replaced by one central gliding school in Vrchlabí.

3.1 School gliders

The standard type of school glider of NSFK was SG-38 Schulgleiter, which was used for elementary training. This type arose in 1938 in Grunau. It is estimated that during the Second World War roughly 5000 pieces of these planes were produced.

![Fig. 1. SG-38 in flight. Source: Propriety of Jan Hrbatsch.](image1.png)

Owing to large number of these planes, their good flying attributes and simple maintenance, they stayed in aviation clubs until the arrival of two-seat Czechoslovak sailplanes in the first half of the fifties. Even though a new training glider Z-23 Honza was constructed, SG-38 was never fully substituted.

![Fig. 2. SG-38 during bungee glider launch. Source: FRANĚK, E. Mladým letcům, Praha: Mladá fronta 1945, p. 17.](image2.png)
Even in pre-war period other 100 pieces of these planes were produced. In 1947 there were about 130 pieces of SG-38 and approximately 66 pieces of restored post-war production labelled ŠK-38 Komár (Mosquito).

### 3.2 School sailplanes

School sailplanes served under the terms of post-war glider training as a transitional intermediate stage between school gliders and high-performance sport sailplanes. Grunau Baby GB-IIb was very important for European and also Czechoslovak soaring. It followed the preceding variations of GB-I and GB-II and was constructed in Grunau in 1936. Just as SG-38 about 5000 of these glider was produced and the production carried on also after the war. “Babies” started mass soaring in our countries. With the first gliders Czechoslovak glider pilots completed their first flying performance in flying on time, altitude and also distance. Since fifties they were gradually eliminated and substituted by Czechoslovak gliders Z-24 Krajánek, which completely substituted the preceding types. In Czech lands there were about 115 airworthy pieces of GB-IIb in 1947.

![GB-IIb during winch launch. Source: P. Lanšťiak.](image)

### 3.3 High-performance sailplanes

High-performance gliders or sport gliders served mainly for sport flights focused on distance and altitude. Until the middle of fifties also time of the flight was measured. After withdrawal of German army there were two defined groups of these sailplanes in Czechoslovakia. The first group was created by DFS Olympia and Mű-17 sailplanes, which took part in pre-war competition – a glider for Olympic Games in Helsinki in 1940. The second group was created by gliders for long distances which had wing-span longer than 16 metres. The third group contained just one acrobatic glider DFS Habicht.

The second group contains two significant gliders – FVA-10 Rheinland and DFS Weihe (Harrier). Rheinland was constructed in 1936 and had 16 metres wingspan. The canopy was nicely glass-topped decorated. Two of these gliders were flying in the area of Czech lands. The second type was called Weihe which arose in 1938 as 18 wingspan glider with great flying attributes. In 1947 there were about 10 pieces of these sailplanes in Czech lands.

![DFS Weihe. Source: Propriety of Jaroslav Prchal.](image)

### 3.4 Two-seat sailplanes

After the Second World War the category of two-seat gliders was not as popular as today. In that period they did not serve for elementary training but for following glider training in rising flow, flying with apparatus, training of takeoff with the aid of aerotow. In Czech countries there were two significant types. The first one was DSF Kranich (Crane) with seats behind. Its first flight took place in 1935. In 1947 there were about 45 pieces in Czech countries, which enabled realization of previously mentioned form of training. Elementary training called “ED courses” was practised on “Cranes” – the pilot adopted the fundamental flying techniques and later on the plane GB-IIb was used for another type of training. The second type of glider was Gopping Go-4 Goevier known as Duck (Kachna). Compared to Kranich it had different arrangement of pilot seats – the pilots were sitting next to each other. In Czech countries there were two pieces which were flying in Kralupy nad Vltavou and in Hodkovic nad Mohelkou.
4. Conclusion

German sailplanes and gliders significantly developed the Czech after-war gliding. Since early fifties gliders and sailplanes of Czech producers dominated. In the first half of fifties SG-38 were less seen because there was a change also in elementary training and one-seat school gliders were replaced by two-seat school sailplanes, mainly by LF-109 Pionýr. Before the first all-metal L-13 Blaník glider, which started to fly in 1956, the majority of planes was all-wood or mixed construction. The inspiration in Germany is apparent – it is SG-38 and Z-23 Honza, GB-IIb and Z-24 Krajánek, DFS Olympia and Z-25 Šohaj or DFS Habicht and LF-107 Luňák.

In 1955 and 1956 redundant German gliders and sailplanes were removed and liquidated and were fully replaced by Czechoslovak production, e.g. by types of Krajánek or Šohaj. One of the last documented pieces of German gliders was Weihe with that RNDr. Ladislav Háza completed the second national glider competition in Vrchlabí in 1957.
References


About Author

Vojtěch HÁJEK was born in 1987. He is studying Ph. D. program History of technique on Dept. of Management of The Masaryk Institute of Advanced Studies of Czech Technical University in Prague. He had studied teaching history and geography for second grade of elementary school and single-subject history at Technical University in Liberec. He focuses on the history of sport aviation and development of helicopters in Czechoslovakia.