



**T**HE MATTER OF THE DESIGN OF FOKKER AIRCRAFT has been of considerable interest to historians of WWI aviation for many years. Up to the late 1950s almost nothing was known about the origins of these iconic aircraft, save for the incidental comments made by Tony Fokker in his autobiography, *Flying Dutchman*. Fokker actually has little to say with respect to details of the aircraft and their later cantilever wings and seems more interested in the development of machine-gun synchronizing gears – in which he may have had a ‘hands-on’ involvement. The publication of A. R. Weyl’s book, *The Creative Years*, in 1965 was the first significant event in the unravelling of the Fokker story. Subsequently, the late Peter M. Grosz embarked on his own crusade, discovering various new and pertinent items of information along the way – much of it from Dutch and German sources that he was fortunate to be able to access. Unfortunately, the interpretation of much of the information has been prejudiced, with the result that the overall picture has been obscured. What is needed is a dispassionate, in-depth look at as much as possible of the information that is currently available in an attempt to identify a true narrative within the fog of misinterpretation. By carefully considering only what might be termed the ‘admissible evidence’, it is possible to discern the probable events. Not surprisingly, the most powerful single technique is to rigorously order the information according to date and having done that, to forensically consider the various testimonies as to their compatibility in the stream of events. In the main therefore, the following narrative emerges from the careful ordering of available information, but various new realizations also emerge to give what I believe to be a coherent and true account.

### FORSSMAN

Villehad Henrik Forssman has been an enigmatic figure in the history of aviation and somewhat lampooned for his design work. He was born on 26 April 1884 to Swedish parents in Wyborg, a principality of Finland. He remained a subject of the Swedish king throughout his life despite settling permanently in Germany.

Forssman had obtained a Diploma in Engineering and is first recognized in aviation as working on a small airship of Parseval type for the Russian government, at the Balloon Works of August Riedinger at Augsburg. This was most probably the PL7 Grif (Griffon), which was built in 1910 and delivered in 1911. Riedinger carried out sub-contract work for *Luft-Fahrzeug-Gesellschaft* (LFG), a company founded in 1908 at the instigation of the Kaiser and funded by Krupp, AEG and others and which was the supplier of PL7 to the Russian government.

By 1912, Forssman was running a design and patents office at Johannistal, close to Berlin, having previously become associated with Prinz Friedrich Sigismund of Prussia (a nephew of the Kaiser), who was interested in aviation and had wanted a personal aircraft designed. It may be that Sigismund’s family connection with LFG and his interest in aviation brought about the association with Forssman. A report in the 13 January 1912 edition of *Flight* magazine has Sigismund experimenting with a monoplane at Bornstedt near Potsdam ‘which he had built to his own design’. It is presumed that this is the first of the *Bulldogge* aircraft which Forssman engineered. The tests were reported as having ‘good results’. Whether this aircraft was the first of a series or a single aircraft subject to progressive development is not completely clear. The date of the report means that the aircraft must have been originally drawn and built during 1911. The aircraft was known as the *Bulldogge* because of its stocky, pugnacious, appearance and was developed up until early 1914. Ultimately, the *Bulldogge* was not a success, having inherent handling problems. It has been named as one of the candidates for ‘The World’s Worst Aircraft’ by James Gilbert in his book of that name, but it flew in an age when many didn’t and it was quite well detailed when many weren’t, so it was perhaps not all bad. What the *Bulldogge* demonstrates is that, at that time, Forssman was a competent engineer, but not an experienced aircraft designer. He may also have been constrained by the design ideas of Sigismund. However, as the year progressed, Sigismund, a useful contact – the house of Hohenzollern being as high as could be gone in German society at the time – was influential in getting Forssman work from the *Siemens Schuckert Werke* (SSW) for whom he acted as chief designer. After fruitless attempts at SSW to improve the handling and performance of the *Bulldogge* to enable its service use, design work started, in October 1914, for a four-engined bomber based on the Sikorski ‘Ilya Mourometz’. The project was directed by Dr Reichel of Siemens and the design work was carried out at the Johannistal office where Forssman employed at least one design assistant, in his ‘Construction’ bureau, by the name of Thorsten von Carlheim, also a

Prince Sigismund stands with the Forssman-designed *Bulldogge*.

