

History of the FHP

Already around 1970 Professor Dr. Faber contemplated whether it would make sense to train aviation personnel at institutions of higher education in the Federal Republic of Germany, similar to such programs in other countries. In the USA, for example, degree programs are offered to technical aviation personnel at numerous colleges and universities. Mostly, these programs offer majors in science and engineering and lead to Bachelor- and Master Degrees.

Underlying reasons for Professor Faber's thoughts on this matter included, first of all, the lack of federal recognition of the occupation *Airline Transport Pilot (Verkehrsflugzeugführer)*. Upon completion of the requirements of airline transport pilot training, pilots obtain a license (ATPL); however, this is not officially recognized as an occupation in Germany - versus most other occupational training programs and college/university degrees, which are typically officially recognized on a federal level. In case of loss of the pilot's license, for example due to medical problems, an officially recognized occupation is of vital importance, among other, to be able to finance retraining. Second of all, the 3rd jet generation with its increasing number of automation-systems has led to a different man-machine interface and new cockpit design. Dealing with highly complex systems requires higher degrees of system awareness, increased knowledge of technical background information and understanding of the systems. This has become increasingly important with the emergence of cockpit-concepts without a flight-engineer since the 1980s. A commensurate engineering-science degree program, such as in the USA, would offer an official degree and simultaneously add comprehensive insight into the systems for type-rating and overall professionalism.

A broad discussion of the subject of an academic pilot training, embedded into an engineering-science degree program, did not take place until after the founding of the German Cockpit Association (*Vereinigung Cockpit – VC*) in the year 1969. Attempts in the 1970s and 1980s to establish an aviation academy at an institution of higher learning failed because of the resistance of various institutions. Most likely, the myriad of day-to-day problems and difficulties kept the concept of an "aviation academy" hidden in some drawers for almost 20 years.

Digital glass-cockpits, combined with fly-by-wire systems, the increasing complexity in the cockpit, growing traffic-density and a rise in H3-mishaps (these are mishaps caused by deficits in training and qualification) since the 1980s, reinvigorated the discussion surrounding an alternative training-concept.

Günther Schweser, the executive director of the VC at the time, asked Professor Faber to form an expert working-group >Academic Pilot Training<, to complete an expertise on the matter. After various empirical studies with air transport pilots, the brochure Pilot Training at Institutions of Higher Learning (*Pilotenausbildung an Hochschulen*) was completed in 1994.

From then on everything moved very quickly. The Lufthansa Pilot School conducted a conference on the further development of pilot training in Bremen, during which the option of a degree program, combined with the ATPL was discussed. As early as the winter-semester of 1995/96, Faculty 5 (mechanical engineering) of the University of Applied Sciences at Bremen, in cooperation with the Lufthansa Pilot School, had

established the International Degree in Aviation Systems Engineering and Management (*Internationaler Studiengang Luftfahrtssystemtechnik und -management*) (ILST). The first students, aiming towards an engineering-degree and an Air Transport Pilot License (ATPL), began their cockpit careers. Prior to this, the Senator for Education of the Hanseatic City of Bremen had recognized the expertise "Academic Pilot Training" as basis-expertise for an inter-disciplinary degree-program. The expert working-group had achieved its goal.

During a discussion between Günther Schweser and Gerd Faber the idea was born for the members of the expert working-group to found a non-profit organization. In 1997 the Research Center for Academic Pilot Training (*Forschungszentrum für Verkehrspilotenausbildung*) (FHP e.V.) was founded, the goal of which is to aid in the improvement of air-traffic safety. FHP, today named **Research Network for Academic Pilot Training (*Forschungsnetzwerk für Verkehrspilotenausbildung*) (FHP e.V.)**, is registered with the Darmstadt Court Registrar as a non-profit organization, the members of which come from the aviation industry, universities, aviation administration and air traffic-control from German-speaking countries.

Professor Faber's idea of the ILST-concept was also picked up in Switzerland (ZHAW Winterthur), in Spain (Reus) and Austria (Graz). Additionally, similar degree-programs, with varying areas of specialization, are being offered at several German colleges.

G. Faber