

Claudius Aschenbrenner :

Source:

Luftwaffe Civilian and Military Personnel Archives BA-ZNS Akte 713 BA-ZNS Akte 58795

<http://milgeolw.vexilli.net/index.html>

English translation of the German link plus additional material:

Dr.-Ing. Claudius (also Claus, and Claus M.) Aschenbrenner (born 03.21.1894) was one of the pioneers of photogrammetry and was later regarded as an internationally recognised expert on aerial cameras and rectifiers.

Military service and the First World War

On 01.10.1913, he joined the Royal Bavarian Telegraph Battalion II in Munich as a one-year volunteer. On 07.01.1914 he was promoted to reserve non-commissioned officer. Before the end of his term of service, the First World War broke out. He was a member of various formations of the radio signal corps. From the summer of 1916 to the end of 1917 he operated the portable radio station of the "Field Flying Section 300" in Palestine, under the command of Captain Hellmuth Felmy. At the end of the war he was interned at Constantinople and discharged from military service on 07.04.1919.

Studies:

Technical University of Munich and Photogrammetry GmbH

From June 1919 to October 1922, he studied Civil Engineering at the Technical University of Munich, with specialised training in photogrammetry under Otto von Gruber.

On 04.11.1922 he received the diploma as an engineer (Dipl.- Ing).

From 11.01.1922 to 04.30.1925 he was appointed Photogrammetry Engineer in a consortium of Aerial GmbH and Stereographic GmbH, later called Photogrammetry GmbH in Munich.

At the end of 1924, he took part in an expedition to Turkey in order to develop a copper mine in Arghana-Maden; from 01/05/1925 to 08/15/1926, he was head of the survey service of the local copper mining company.

On 09.01.1926 he re-entered the Consortium and later took over the technical direction, a position he held until at least 16/10/1935. There, his main focus was the theoretical development and practical implementation of the methods of aerial measurement and the development and construction of special equipment for measurement and evaluation of aerial imagery. Devices developed were e.g. the first rectifier with automatic (mechanical) vanishing point control, and in 1934 a recording camera and a viewer for multi-colour aerial photographs, which at that time comprised three colour-separate images for the red, green and blue components of light. For his developments Aschenbrenner received several US patents.

He was awarded a doctorate (Dr.-Ing.) at the end of 1930 at the Technical University Munich with the dissertation "On wide-angle aerial photogrammetry". His Ph.D. supervisor was a pioneer of the first generation of German photogrammetry, Sebastian Finsterwalder.

In 1931 Aschenbrenner took part in the Arctic voyage of the airship LZ 127 "Graf Zeppelin".

In 1927 he had developed a 9-lens panorama camera which was he used in two instances on the flight.

Here he is at the camera controls.



In October 1934 Aschenbrenner was appointed to the Association for Aviation Research (VFL) founded in 1933.

Luftwaffe career officer:

From 01.11 to 21.12.1935 Aschenbrenner completed the A-Observer course at the Luftwaffe observer school in Braunschweig. In 1936, he was hired as a civilian employee of the Luftwaffe main image directorate (Hauptbildstelle). There he was a research consultant for apparatus and process development. Later, he was commissioned in the newly created Luftwaffe Corps of Engineers and received the rank of Staff Flight Engineer, (equivalent to Major or Squadron Leader).

On 05.08.1936 he was promoted to Second Lieutenant (Reserve). Later he was promoted to First Lieutenant (Reserve) with rank seniority back-dated to 01.03.1924.

On 01.08.1937 he was appointed Senior Staff Flight Engineer (equivalent to Lieutenant Colonel or Wing Commander)

On 15.06.1939, he worked in the aerial survey group of the aerial photography department under Richard Schimpf, later Major-General in the post-world war II German Bundeswehr.

On 01.01.1943 Aschenbrenner was promoted to the rank of full Colonel.

During his tenure in the 7th. Department of the German Air Ministry, the Special Aerial Photography Section(SOBIA) was under his direction as well as Aerial Photography Squadron 1 and the test site for large-area imagery.

USA

After World War II, Aschenbrenner was taken to the United States by the OSS, the predecessor of the CIA, (Operation Paperclip) and assigned to Wright Field, then seconded to the Boston University Optical

Research Laboratory, the predecessor of the ITEK Corporation as Senior Scientist (and Senior Scientific Adviser) to ITEK in Lexington, Mass.

He retired on 01.09.1965 at the age of 72 It is not known exactly when he died. The MilGeo web site states 1980 without further documentation.

Ph.D. Dissertation:

Über weitwinkelige Luftphotogrammetrie. Technische Hochschule München 1931

Publications:

Über die Berücksichtigung von Erdkrümmung und Refraktion bei der mechanischen Auswertung von Stereophotogrammen. In: Zeitschrift für Instrumentenkunde, 45 1925 S. 203-207

Über ein neues halbautomatisches Entzerrungsgerät. In: Zeitschrift für Instrumentenkunde, 45 1925 S. 333-353

Über Nadirpunktstriangulation. In: Mitteilungen aus dem Arbeitsgebiet des Konsortiums Luftbild GmbH - Stereographik GmbH, Jg. II Nr. 5, München 1926

Über die Verwendung von Entzerrungsgeräten zur kartographischen Darstellung von geneigtem Gelände aus Flugzeugaufnahmen. In: Zeitschrift für Instrumentenkunde, 47 1927 S. 568-579

Bericht über die von Dipl.-Ing. Aschenbrenner in München bei der Gruppe "Süddeutschland" gehaltenen Vorträge. In: Bildmessung und Luftbildwesen. Zeitschrift der Deutschen Gesellschaft für Photogrammetrie (between 1926 und 1929)

Neue Geräte und Methoden für die photogrammetrische Erschließung unerforschter Gebiete. In: Bildmessung und Luftbildwesen. Zeitschrift der Deutschen Gesellschaft für Photogrammetrie 1929 Nr. 1 S. 30-38

Bericht über die Durchführung und die Ergebnisse einer Bildtriangulierung mit den neuen Geräten der Photogrammetrie GmbH. In: Bildmessung und Luftbildwesen. Zeitschrift der Deutschen Gesellschaft für Photogrammetrie 4, 1929 S. 161-176

Photogrammetrische Arbeiten bei der Arktis-Expedition des "Graf Zeppelin". In: Schweizerische Zeitschrift für Vermessungswesen 1931 S. 287-290

Die Panoramenkammer von Dr.-Ing. C. Aschenbrenner/Photogrammetrie GmbH München und ihre Verwendung für die luftphotogrammetrische Vermessung. In: Schweizerische Zeitschrift für Vermessungswesen 1933 S. 55-69 und 84-90

Der Einfluss der atmosphärischen Strahlenbrechung in der Luftbildmessung. In: Bildmessung und Luftbildwesen. Zeitschrift der Deutschen Gesellschaft für Photogrammetrie 11 1937 S. 2-10

Photographie und Kinotechnik bei der Luftfahrt und Luftwaffe 1938

Untersuchungen über die spektrale Zusammensetzung der bei Luftaufnahmen wirksamen Strahlung. (with Richard Schimpf) In: Zeitschrift für angewandte Photographie, 2 1940 S. 41

Photogrammetrische Arbeiten bei der Arktis-Expedition des "Graf Zeppelin". In: Schweizerische Zeitschrift für Vermessungswesen 1931 S. 287-290

Die Lichtverteilung in Luftbildern. In: Bildmessung und Luftbildwesen. Zeitschrift der Deutschen Gesellschaft für Photogrammetrie 16 1941 Nr. 1 S. 5-19

Patents:

Click US number to read the patent

[US 1797849](#) MULTIPLE Chamber FOR TAKING PHOTOGRAPHS FROM AEROPLANES, US.PAT.Nr. 1,797,849 issued 03/24/1931

MECHANISM OF FILM PROPULSION, US.PAT.Nr. 1,879,866 issued 27.09.1932

CORRECTION FOR DISTORTION [OF] THE COMPONENT PRODUCED FROM DIFFERENT PICTURES PHOTO GRAPHIC REGISTERING DEVICES, US.PAT.Nr. 1,906,509 issued 02/05/1933

GYRO-STABILIZED AERIAL CAMERA (with Ulrich Heidelauf etc.), US.PAT.Nr. 2,523,267 issued 09/1950

[US3362287](#) PRINTER FOR RECTIFYING PANORAMIC DISTORTION US.PAT.Nr. 3,362,287 issued 01/1968

(This is the patent for the ITEK Gamma Rectifier series for Corona)

[US 3364830](#) OPTICAL SYSTEM FOR AERIAL CAMERA, US.PAT.Nr. 3,364,830 issued 01/1968
(This is the patent for the twin cameras used in the KH 4 series of Corona satellites)

LASER DATA RECORDER, US.PAT.Nr. 3,438,050 issued 04/1968