

Belgium

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CAMERAS FOR AIR PHOTOGRAPHY

For general purpose photography the S.A.B.E.P.A. (Belgian Air Photograph Company, Inc.) uses the Demaria-Lapierre plate camera, and the Zeiss H.M.K. c/4 camera for film or plates. For photography for use in connection with stereoscopic plotting devices, the S.A.B.E.P.A. uses Zeiss automatic film cameras of various focal lengths from 21 cm. (8.3 inches) to 50 cm. (20 inches). The Belgian Military Cartographic Institute uses a Zeiss wide angle camera, negative size 30×30 cm. (12×12 inches).

Zeiss yellow, orange, dark yellow, and ruby filters are used on the above cameras. Multiple lens cameras and horizon cameras are not used, nor are registering statoscopes used.

PLATES, FILM, AND PAPER

Agfa aeropan and Gevaert panchromatic and ultra-panchromatic emulsions are used for the photography and Gevaert and Fotobel papers for printing.

Development of film is done with Correx, Bourdereau, and Zeiss equipment with drying on drums in free air.

Direct process film and paper are not used, nor are special low shrinkage papers used.

AIRCRAFT

Two Fokker planes are specially equipped for air photography, one military Fokker for the Military Cartographic Institute and one civil Fokker for the S.A.B.E.P.A. These planes are equipped with telephone and electric signal communication between the pilot and photographer.

The photographs for 1:1,000 scale maps are flown at a low altitude of about 750 meters (2,500 feet). For this photography it is necessary to have a separate photographer and pilot with telephone and electric signal communication as mentioned above.

Czechoslovakia

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Society of Photogrammetry*

In Czechoslovakia air photography is carried out by the following institutions: (1) The Geographical Institute of Prague, (2) The Ministry of Public Works of Prague, (3) The Department of Geodesy of the Agricultural College in Brno, and (4) The Technical College in Brno.

For mapping photography the Geographic Institute uses Zeiss model c/3 and c/5 automatic film cameras. The planes for this photography are single motored type A-35 and A-38 and two motored type A-304. The planes are equipped with the usual navigating instruments and are operated by trained crews.

Photography is usually at a scale of 1:20,000. Zeiss Ikon and Kodak Panchromatic film are used with exposure intervals of 1/100 to 1/150 second.

The Ministry of Public Works uses air photographs for various purposes, the more important of which are: (1) making of plans for auxiliary landing

fields, (2) studies for dam construction and reservoirs, (3) drainage regulation and canal projects, (4) communication lines, (5) city zoning, (6) industrial and mining studies, (7) river control studies, (8) development of agriculture, and (9) illustrations for tourists and passenger guidebooks.

The following cameras are used for the photography: (1) Zeiss H.M.K. 21 film camera, (2) Hugershoff and Heyde hand operated camera of 16 cm. (6.4 inch) focal length with 13×18 cm. (5×7 inch) negatives, and (3) Löschner (Prague) model 34 camera of 21 cm. (8.4 inch) focal length with Benar objective of 1/4.5 aperture.

Negative materials are the orthochromatic film and plates of the Czechoslovakian firm of Foma-Hradee Králové; plates of the firm of Renée-Kutná Hora; and the Gevaert orthochromatic film.

An automatic developing machine of the Czechoslovakian firm of A. Haager is used.

The Technical College uses photographs at a scale of 1:5,000 for architectural studies.

The Department of Geodesy of the Agricultural College owns a Hugershoff-Heyde hand camera.

Air photographs are used extensively for the scaling of forest areas and for forestry studies.

Denmark

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Since the last congress the Geodetic Institute of Denmark has continued its survey of Greenland by means of an air camera, and in 1937 such a survey was also commenced in Iceland.

The photographs were taken as oblique views for use in stereoscopic plotting. The camera is a single lens precision camera, Eagle III (Williamson Manufacturing Company, Ltd., London), focal length 6 inches and the size of the photograph 5×5 inches.

The photographs were taken at a flying height of 4,000 meters (13,124 feet) at a right angle to the flying direction, and were tilted so that the horizon was just visible on the photographs.

The film used was Agfa aeropan which has been very valuable in Greenland.

For the development the Williamson equipment has been used, and the drying of the film has taken place on a large drum in the darkroom and only by air.

The aircraft in use were Heinkel seaplanes supplied from the air force of the Danish Navy.

The organization of the expeditions has been different in Iceland and in East- and West-Greenland.

In Iceland the fishery-inspection ship "Hvidbjörnen" of the Danish Navy was mother-ship to the seaplane during the survey flying. All the members of the expedition lived on board, and there too all photographic work and all work connected with supervision of the flying were executed. The necessary fuel was placed in depots in certain sea towns selected as bases, prior to the beginning of the photography.

In East-Greenland all the year round a strong south-going current carrying a lot of flocs from the pole basin runs along the coast. It is therefore necessary to use a mother-ship here which can take the seaplane on board if the ice packs in the flying base. The ship is a comparatively small wooden ship suitable for