

that they could not easily be covered on one print as is necessary for direct tonal comparison. In addition the fields were so large that detailed sampling of the rust incidence was not possible and hence could not be verified from aerial photography.

It is expected that additional photographic tests will be conducted in the near future and from which supplementary data will be obtained.

INDEX TO AERIAL AND GROUND PHOTOGRAPHIC ILLUSTRATIONS OF GEOLOGICAL AND TOPOGRAPHIC FEATURES THROUGH- OUT THE WORLD*

R. C. Sager, AFOIN-1A2, Headquarters USAF, Pentagon, Washington 25, D. C.

THE Photographic Records and Services Division of the Air Force has a collection of photos illustrating miscellaneous geologic and topographic features of many areas throughout the world. All photos are unclassified and available to the public with the understanding that they will not be used in advertising which implies that the Department of Defense indorses or prefers any commercial product.

These photographs have been selected as type—"text book"—examples and examples depicting the land forms as commonly found. The illustrations in the collection are represented by single vertical or oblique photos or by vertical stereo pairs or triplets.

A mimeographed index to this collection was compiled in September 1946 and a supplement added in May 1949. A total of 603 illustrations are included in this index.

It is anticipated that a second supplement will be issued early in 1953. This will include some stereograms.

The photos are listed in the index by country in alphabetical order, and each photo is assigned an "Item No.," "Subject," "Location," "Number of Photos Available," "Type of Photo," and "Negative Numbers." The "Item Numbers" are consecutive and represent particular landforms. Supplements utilize this number plus a letter. The "Subject" includes some descriptive breakdown, i.e., moraines being listed as medial, lateral, or terminal. The "Location" is indicated by geographic coordinates to the nearest minute. The "Number of Photos Available" indicates the number of different representations available under that particular item number. "Type of Photo" refers to vertical, oblique, or ground photos and whether or not they are overlapping or in stereo. "Negative Numbers" refer to the file number system as used by the Air Force.

Since aerial photographs are not stocked but are custom processed for each order, they will not be loaned, sent on approval, or exchanged. The photographs will be supplied in not more than three copies of each exposure, only in the exact size of the available negative (no enlargement) on single weight glossy or double weight dull finish prints. Following is the current price per print: For quantities of 1-100, 55 cents each; for quantities of 101-1,000, 45 cents each; and for any number over 1,000, 40 cents each. The negative sizes are 7"×9" or 9"×9".

Since official Department of Defense and U. S. Federal Government activities must be given precedence, some delay in filling orders may be anticipated.

* Paper read at Nineteenth Annual Meeting of the Society, Hotel Shoreham, Washington, D. C., January 14 to 16, 1953. It was a part of the Report of the Photo Interpretation Committee.

If more than three copies of single exposures and/or enlargements are required, glossy prints should be ordered for best results for copying. Copies can be made by any commercial photographer and additional prints or enlargements produced in the size or quantity required.

The entire photo collection in ten volumes is available for review at the Photographic Records and Services Division in the Pentagon (Room 1E 383).

If an example of land form in a particular area is desired, but is not in this collection, a map of reasonably large scale outlining the exact area wished, should be forwarded with the order, and efforts will be made to fulfill the request.

Requests should be addressed to: Photographic Records and Services Division, USAF Aeronautical Chart and Information Center, Washington 25, D. C.

Examples which might be added to this collection will be appreciated, either an actual photo or references adequate for obtaining it.

Address all such information to the author.

ABSTRACT OF THESIS—CONTRIBUTIONS TO THE STUDY OF ANTARCTIC SURFACE FEATURES BY PHOTOGEOGRAPHICAL METHODS*

*Dr. John H. Roscoe, AFOIN-1A2 Headquarters USAF,
Pentagon, Washington 25, D. C.*

THE employment of airphoto interpretation as a geographic research technique is termed photogeography; those skilled in this practice are called photogeographers.

Airphoto coverage is comparable to or exceeds adequate map coverage for most areas. Recent developments in optics, emulsions and film processing have improved resolution and increased the value of aerial photography as a tool of science. But neither complete airphoto coverage nor fine resolution will enable photogeographers to interpret accurately the myriads of airphoto images of the objects, conditions, situations, patterns and relationships which comprise the landscape, particularly if the investigators are not familiar with them as they exist on the ground.

The most practical solution to this problem yet devised is the systematic derivation and compilation of selected, pertinent, annotated airphoto images, called photo interpretation keys. Effective utilization of photo interpretation keys varies proportionately with the interpretation experience and professional competence of the investigator.

Approximately 350 such keys are presented for the iceforms and landforms of the Antarctic. These include keys for glaciers, ice tongues, shelf ice, icebergs, snow, firn, glacier ice, sastrugi, snowdrifts, crevasses, radiation, meltwater, moraines, mountains, coastlines, islands, Antarctic phenomena, flora, fauna and settlement patterns. The Airphoto research required for the derivation and establishment of these keys also produced new information concerning the morphology of these features and of others not mentioned in the literature, e.g., "channel glaciers," "floating fissures," "reentrant rifts," "ice morasses" and "right angle drifts."

In research concerning areas of limited accessibility, it is sometimes necessary for the geographer to rely upon information derived from the airphotos alone. But since the actual landscape may differ from that conceived solely

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