CANADA
DEPARTMENT OF MINES
AND
TECHNICAL SURVEYS

GEOLOGICAL SURVEY OF CANADA

PAPER 47-26

INTERIM CATALOGUE OF THE GEOLOGICAL SURVEY COLLECTIONS OF OUTSTANDING AIR PHOTOGRAPHS

By
A. H. Lang, H. S. Bostock, and Y. O. Fortier

OTTAWA
1947

Reprinted 1962

CANADA
DEPARTMENT OF MINES AND RESOURCES
MINES, FORESTS AND SCIENTIFIC SERVICES

GEOLOGICAL SURVEY OF CANADA

PAPER 47-26

INTERIM CATALOGUE

of the

GEOLOGICAL SURVEY COLLECTIONS

OF OUTSTANDING AIR PHOTOGRAPHS

Compiled by

A. H. Lang,
H. S. Bostock,
and
Y. O. Fortier

OTTAWA
1947

INTERIM CATALOGUE

of the

GEOLOGICAL SURVEY COLLECTIONS OF OUTSTANDING AIR PHOTOGRAPHS

These collections consist of pictures of particular geological interest selected from the thousands of air photographs now contained in the National Air Photographic Library.

The collections comprise a Phenomena Collection, A Regional Collection, and a Mapping Collection.

The photographs in the Phenomena Collection illustrate one or more specific features such as glaciers, land forms, faults, folds, or intrusive contacts. This collection is divided into two subdivisions, one entitled "Geomorphology" and the other, "Bedrock Features".

The Regional Collection eventually will contain a few representative pictures for each of the minor physiographic subdivisions of Canada, but at present it consists chiefly of photographs taken in the northern Cordillera. Descriptive notes have been prepared for the photographs in this collection; they are not included in the catalogue because of their length, but mimeographed copies will be supplied on request.

The Mapping Collection was made in response to requests for photographs suitable for teaching their use as aids to geological mapping and prospecting. The examples chosen assist the recognition and delimitation of outcrops, rock types, geological boundaries, faults, and folds. To permit stereoscopic examination they are listed in stereoscopic sequences.

Most of the photographs in these collections were taken by The Royal Canadian Air Force and are protected by Crown Copyright. The Air Force will supply prints and lantern slides of photographs, but permission to re-publish these must be obtained. Orders may be sent to the National Air Photographic Library, Department of Mines and Technical Surveys, Ottawa, and should be accompanied by payment in advance. Price of contact prints is 60 cents each and of lantern slides is $1.00 for 2" x 2" and 70 cents for larger sizes. Service rates (half price) apply to Federal and Provincial government departments and to Canadian educational institutions. Photographs marked "G.S.C." should be ordered from the Geological Survey, at approximate prices of one-third cent per square inch for contact prints and one cent per square inch for enlargements. Glossy paper should be specified in all instances, except when it is desired to mark prints in the mapping collection, in which case matte paper should be specified.

The scale of all the 7 x 9 vertical photographs is approximately 1 inch to 1,200 feet. That of the 10 x 10 vertical photographs, unless otherwise stated, is approximately 1 inch to 1,800 feet.

PHENOMENA COLLECTION

GEOMORPHOLOGY

A9109 - 80 RCAF Vertical 7 x 9. Barchanes near Fort St. John, Peace River District, British Columbia. These dunes were formed by strong easterly winds (directed toward left side of picture), but the prevailing winds in the region today are moderate and westerly. It is thought that these dunes were formed at the close of Pleistocene time, when an ice sheet lay to the east, causing strong air currents to blow off the ice, toward the west. Submitted by S. Hunt.[x]

A4116 - 37 RCAF Oblique 7 x 9. Raised post-glacial beaches at east end of Great Bear Lake, Northwest Territories. Frost polygons in right foreground. References: Geological Survey Map 333A; Lobeck, A.K.: Geomorphology, p. 335. (In this reference read "Great Bear" for "Great Slave").

A4218 - 15 RCAF Oblique 7 x 9. Raised beaches and drumlins near Thelon River, Northwest Territories.

A6791 - 2 RCAF Vertical 7 x 9. Abandoned beaches of glacial Lake Algonquin, near Lake Talon, 22 miles east of North Bay, Ontario. Reference: Trans. Roy. Soc. Canada, Sec. IV, 1943, pp. 49-52.

A4739 - 88R RCAF Oblique 7 x 9. Raised beaches, Northwest Territories.

A4789 - 17L RCAF Oblique 7 x 9. Abandoned beaches and peculiar bar spit forms, near Attawapiskat, James Bay.

A 5433 - 31L RCAF Oblique 7 x 9. Raised post-glacial lacustrine and marine beaches, near Thelon River, Northwest Territories. Also shows direction of glaciation. Reference: Bureau of Geology and Topography topographical Map 594A.

G.S.C. 99472 U.S.A.A.F. Trimetrogon 7 x 9. Cinder cone in Coast Mountains, northern British Columbia. Four miles north of Edziza Peak and 12 miles south of Telegraph Creek.

K.A.51-15 RCAF Vertical 7 x 9. Drainage pattern in tidal mud flats at low tide, near Yarmouth, Nova Scotia. Scale about 1,200 feet to one inch. Reference: Geological Survey Map 2006. Submitted by J. T. Wilson.

---

[x] Names are included only when the person who submitted a photograph is not on the staff of the Geological Survey.

G.S.C. 99124 U.S.A.A.F. Trimetrogon 6½ x 6½. Till drumlins one-half to one and one-half miles long, one-quarter mile or less wide, and 50 to 75 feet high, near Carp Lake, northern B.C. Reference: Geological Survey Paper 47-13.

G.S.C. 99121 U.S.A.A.F. Trimetrogon 6½ x 6½. Direction of glaciation shown by "rock drumlins" and crag-and-tail effect, near Carp Lake, northern B.C. The stoss ends of the drumlins are rock outcrops. Reference: Geological Survey Paper 47-13.

A5136 - 40L RCAF Oblique 7 x 9. Drumlins in barren part of Canadian Shield, Northwest Territories.

A5136 - 40C RCAF Oblique 7 x 9. Drumlins in barren part of Canadian Shield, Northwest Territories.

A5136 - 33C RCAF Oblique 7 x 9. Drumlins in barren part of Canadian Shield, Northwest Territories.

A5432 - 88C RCAF Oblique 7 x 9. Barrens between Artillery Lake and Thelon River, Northwest Territories. The drumlins show direction of glaciation. The esker is flanked by sand outwash (white). Distant lakes are covered with seasonal ice (white). Reference: Bureau of Geology and Topography, Map 594A.

A4217 - 32 RCAF Oblique 7 x 9. Drumlins controlling lake pattern, Thelon River, Northwest Territories. Reference: National Topographic Series, Map 66C.

A5202 - 8L RCAF Oblique 7 x 9. Drumlins in northern Saskatchewan. The numerous parallel, transverse ridges crossing the drumlins may be ice-crack fillings.

A3648 - 38 RCAF Vertical 7 x 9. The cultivated fields are on drumlins because they provide the best soil. Lunenburg County, Nova Scotia. Reference: Geological Survey Map 2154.

A2711 - 94 RCAF Oblique 7 x 9. Esker in thinly-wooded drift, morainal topography in foreground. Near Woldaia Lake, Northwest Territories. Reference: National Topographic Series, Map 65E; Lobeck, A.K.: Geomorphology, p. 291.

A5433 - 21 RCAF Oblique 7 x 9. Esker flanked by outwash and kettles. Raised beaches of small lake in foreground. Barrens near Thelon and Hanbury Rivers, Northwest Territories. Reference: Bureau of Geology and Topography, Map 594A.

G.S.C. 99122 U.S.A.A.F. Trimetrogon 10 x 10. Part of an esker 35 miles long and averaging half a mile wide. Near Carp Lake, northern B.C. Reference: Geological Survey Paper 47-13.

G.S.C. 99119 U.S.A.A.F. Trimetrogon 10 x 10. Compound esker with an over-all width of from one to two and one-half miles wide, near Carp Lake, northern British Columbia. The esker lies nearly 200 feet below the general level of the till plain. Reference: Geological Survey Paper 47-13.

A5432 - 74C RCAF Oblique 7 x 9. Intermittent esker ridge between Campbell Lake (foreground) and Artillery Lake (left background, still white with ice), Northwest Territories. Drumlins and ground moraine in foreground. References: Bureau of Geology and Topography Map 733A; National Topographic Series 75-O.

A4218 - 32 RCAF Oblique 7 x 9. An esker north of Dubawnt Lake, Northwest Territories. Reference: National Topographic Series, Map 66B.

A4080 - 68 RCAF Oblique 7 x 9. Esker and attendant outwash. Between Lac de Gras and Bathurst Inlet, Northwest Territories. Reference: National Topographic Series, Map 76F.

A5417 - 23R RCAF Oblique 7 x 9. Coalescing eskers on barrens northwest of Artillery Lake, Northwest Territories. White areas are frozen lakes. Reference: Bureau of Geology and Topography, Map 699A.

A1635 - 60 RCAF Vertical 7 x 9. Esker flanked by muskeg and woodland, Nova Scotia. Note absence of outwash in comparison with Quebec eskers.

A1426 - 66 RCAF Oblique 7 x 9. Frost polygons near Churchill, Manitoba. The Hudson Bay railroad shows in the centre of the photograph.

A2829 - 25 RCAF Oblique 7 x 9. Confederation Glacier, with Mount Waddington, elevation 13,260 feet, in background. Coast Mountains, British Columbia. Mount Waddington is the highest mountain in British Columbia.

A2829 - 19 RCAF Oblique 7 x 9. Glaciers in White Mantle Range, Coast Mountains, near Knight Inlet, British Columbia.

CA114 - 56 RCAF Oblique 7 x 9. Cliff glacier and reconstructed glacier, Lake Louise, Banff National Park, Alberta.

CA114 - 47 RCAF Oblique 7 x 9. Boom Glacier and Boom Lake, 25 miles west of Banff, Alberta. Reference: Department of Mines and Resources, Map of Banff Park.

CA114 - 7 RCAF Oblique 7 x 9. Alpine glacier, Kananaskis Range, south of Banff, Alberta. Also shows development of cols and arêtes.

CA114 - 12 RCAF Oblique 7 x 9. Alpine glaciers, Kananaskis Range, Rocky Mountains, Banff National Park, Alberta.

G.S.C. 99470 U.S.A.A.F. Trimetrogon 7 x 9. View looking northeast showing rapid recession of glaciers in Shelay Range, Coast Mountains, northern British Columbia.

G.S.C. 99469 U.S.A.A.F. Trimetrogon 7 x 9. Large icefield with nunataks, at head of Taku Glacier, Coast Mountains, British Columbia.

G.S.C. 99466 U.S.A.A.F. Trimetrogon 7 x 9. View looking southwest from near the International Boundary, showing Taku Glacier in the right distance entering Taku Inlet in Alaska. At right centre the Twin Glaciers recede from Twin Lake.

G.S.C. 99468 U.S.A.A.F. Trimetrogon 7 x 9. Glacier and icefield in southern part of Spectrum Range, Coast Mountains, northern British Columbia. Edziza Peak (9,140 feet) appears in the extreme background.

G.S.C. 99467 U.S.A.A.F. Trimetrogon 7 x 9. View showing rapid recession of glaciers, west of Bowser Lake, Coast Mountains, northern British Columbia.

G.S.C. 99471 U.S.A.A.F. Trimetrogon 7 x 9. Eagle Glacier and its source icefield, Coast Mountains, northern British Columbia. View looking northeast from near the International Boundary.

G.S.C. 99475 U.S.A.A.F. Trimetrogon 7 x 9. Eagle Glacier, Alaska. View looking southwest from near the International Boundary.

G.S.C. 99473 U.S.A.A.F. Trimetrogon 7 x 9. View showing upper limit of glaciation in part of Mayo District, Yukon Territory, where the highest regions were not affected by the last glaciation. The limit of glaciation forms a winding contour over the plateau in the foreground, and shows on both sides of the mountain called Kalzas Twins, which overlooks Big Kalzas Lake in the right distance. The unglaciated area at the centre foreground shows solifluction. Reference: Geological Survey Map 890A.

A6667 - 12 RCAF Vertical 10 x 10. Direction of glaciation, as shown by grooving in unconsolidated deposits, near North Battleford, Saskatchewan. North Saskatchewan River at left.

A4217 - 9 RCAF Oblique 7 x 9. Glacial scouring indicating direction of movement of Keewatin ice-sheet. Post-glacial beaches superimposed on scours. Near Thelon River, Northwest Territories. Reference: National Topographic Series 66C.

H.A.154 - 85 RCAF Vertical 7 x 9. Kettles in sand plain, near La Motte, Quebec. Reference: Geological Survey Map 189A.

T1● - 134R RCAF Trimetrogon 10 x 10. Large landslide at side of Pelly Valley, Yukon Territory. Submitted by J. Carroll.

A1619 - 43 RCAF Oblique 7 x 9. Showing diversity of shore line in an area of poor drainage, east of Frobisher Lake, northern Saskatchewan.

A1814 - 27 RCAF Oblique 7 x 9. Meanders, Mudjatik River, northern Saskatchewan.

A1810 - 26 RCAF Oblique 7 x 9. Meanders, Mudjatik River, northern Saskatchewan.

A4769 - 83L, 83C RCAF Obliques 7 x 9. The flood plain and delta of Slave River, showing meanders, ox-bow lakes, distributaries, and abandoned channels. Great Slave Lake in right background. Reference: Geological Survey Map 664A.

A4122 - 82 RCAF Oblique 7 x 9. Topography developed on nearly horizontal strata of Coronation Gulf group, northeast of Great Bear Lake, Northwest Territories.

A3799 - 62 RCAF Oblique 7 x 9. Mesas eroded in flat-lying Coppermine series, near Arctic Coast, Northwest Territories. Reference: Geological Survey Map 1963.

A5202 - 47L RCAF Oblique 7 x 9. Morainal topography and kettle ponds, upper Clearwater River, Northern Saskatchewan. Reference: Geological Survey Map 578A.

A4943 - 85 RCAF Vertical 7 x 9. Narrow morainal ridges resulting from seasonal deposition. The ridges are thought to be annual winter advances of the last ice-sheet, and the intervals between them to mark summer recessions. The large, light-coloured areas are muskegs. Chibougamau District, Quebec.

A5800 - 51L RCAF Oblique 7 x 9. A moraine in southern Saskatchewan, pitted by kettles. The background shows lower lying arable land deposited in glacial lake Regina, which did not inundate the higher part of the moraine.

A6729 - 23 RCAF Vertical 7 x 9. A moraine in southern Saskatchewan pocked by numerous kettles.

A5555 - 47 RCAF Oblique 7 x 9. Moraine on north edge of Cypress Hills, Alberta.

A1747 - 30 RCAF Oblique 7 x 9. A recessional moraine near Porter Lake, northern Saskatchewan, accounts for the position of several large lakes. Outwash at left edge of photograph. Reference: Geological Survey Map 580A.

CA114 - 53 RCAF Oblique 7 x 9. Moraine Lake in the Valley of the Ten Peaks, Banff National Park, Alberta.

CA114 - 23 RCAF Oblique 7 x 9. Mount Assiniboine, in the Rocky Mountains south of Banff, Alberta; showing a horn and other forms of alpine sculpturing in almost horizontal strata. Reference: Department of Mines and Resources, Map of Banff Park.

CA114 - 10 RCAF Oblique 7 x 9. Sculpturing effects on and near Glacier Mountain, Rocky Mountains, south of Banff, Alberta. Strata in foreground exhibit folding.

G.S.C. 73920½ 7 x 9 enlargement. Natural levees at mouth of Shabogama River, Quebec. Enlargement of air snapshot by A. H. Lang.

A5126 - 8C RCAF Oblique 7 x 9. Unexplained fluvio-glacial feature, probably related to outwash. Near Nonacho Lake, Northwest Territories. Reference: National Topographic Series, Map 74G.

A4789 - 31R RCAF Oblique 7 x 9. The abandoned spits and beaches of modern streams are sufficiently well drained to support a spruce forest. The intervening ground is covered by swamp and muskeg. James Bay. Reference: National Topographic Series 43J.

FA459 - 1 RCAF Oblique 7 x 9. River terraces of Slave River, Northwest Territories, showing lateral erosion of a mature stream.

A3618 - 63 RCAF Oblique 7 x 9. Tombolo formed by drumlin, Chester, Nova Scotia. See also photograph A3825 - 56. References: Geological Survey Maps 1981 and 2153.

A3825 - 56 RCAF Vertical 7 x 9. Tombolo formed by drumlin, Chester, Nova Scotia. See also photograph A3618 - 63. References: Geological Survey Maps 1981 and 2153.

PHENOMENA COLLECTION

BEDROCK FEATURES

A3707 - 5 RCAF Oblique 7 x 9. Escarpments of Palaeozoic limestone, east of Marian Lake, Northwest Territories.

T8 - 49L RCAF Trimetrogon 10 x 10. Closed anticline in Mackenzie Mountains, Northwest Territories. Reference: Bostock, H.S.: Geol. Surv., Canada, Memoir 247.

A4251 - 4 RCAF Oblique 7 x 9. Plunging folds in late Precambrian strata, Belcher Islands, Hudson Bay.

A3914 - 58 RCAF Oblique 7 x 9. Plunging, folded sedimentary and volcanic strata, Belcher Islands, Hudson Bay.

A3520 - 44, 45 RCAF Verticals 7 x 9. Pleasant River Barrens dome in Goldenville quartzite. The strata dip away from the centre of the dome at angles of 20 to 30 degrees. Several fractures, marked by vegetation, cross the strata diagonally. Nova Scotia. Reference: Geological Survey Maps 118, 436A.

A7054 - 59 RCAF Vertical 7 x 9. A plunging syncline in Precambrian strata, Herb Lake area, Manitoba. Reference: Geological Survey Maps 374A, 375A, 376A.

A3555 - 11 RCAF Vertical 7 x 9. Syncline in late Precambrian sediments traversed by a fault or fracture (near bottom of photo.). The cultivated fields are on clay drumlins, Lunenburg County, Nova Scotia. Reference: Geological Survey Map 2154.

A3766 - 90 RCAF Vertical 7 x 9. The Leipsigate Anticline, Lunenburg County, Nova Scotia, in quartzite and slate of Goldenville Formation. Reference: Geological Survey Map 435A.

A5612 - 42 RCAF Vertical 7 x 9. Folding in Precambrian sedimentary rocks, 10 miles northeast of Yellowknife. Reference: Jolliffe, A.W., Trans. C.I.M. 1945, p. 592.

G.S.C. 81707 Enlargement of air snapshot by A. W. Jolliffe. Folded sedimentary strata, Outpost Island, near Yellowknife, Northwest Territories. Reference: Jolliffe, A.W.: Trans. C.I.M. vol. XLVIII, 1945, p. 593.

A5021 - 97L RCAF Oblique 7 x 9. Syncline in early Precambrian strata; looking northeast up Beaulieu River, Northwest Territories.

A5598 - 9 RCAF Vertical 7 x 9. Folding in argillite (dark) and greywacke (light) belonging to Yellowknife group, Gordon Lake area, Northwest Territories. Reference: Geological Survey Map 645A.

A8666 - 48 RCAF Vertical 10 x 10. Plunging syncline in sediments of Yellowknife group intruded by dykes. Ross Lake area, Northwest Territories. Reference: Geological Survey Map of Ross Lake area (in preparation).

A5598 - 9 RCAF Vertical 7 x 9. Folded and faulted Precambrian Sediments, Gordon Lake area, Northwest Territories. Reference: Geological Survey Map 645A, in southwest corner.

A8668 - 37 RCAF Vertical 10 x 10. Folding in Precambrian sedimentary strata, Ross Lake area, Northwest Territories. Reference: Geological Survey Map 47-16.

A8661 - 84 RCAF Vertical 10 x 10. Sedimentary strata of Yellowknife group deformed into numerous folds and cut by many faults. Ross Lake area, Northwest Territories. Reference: Geological Survey Map of Ross Lake area (in preparation).

A615 - 45 RCAF Oblique 7 x 9. Dome in Kisseynew gneisses, northern Saskatchewan.

A5120 - 105R RCAF Oblique 7 x 9. Fault-line scarp forming shore of MacDonald Lake, near Great Slave Lake. The fault separates early Precambrian granite to the left and late Precambrian sediments of the Et-then series to the right. A minor parallel fault forms the right shore of the cape in MacDonald Lake. References: Geological Survey Map 377A; Jolliffe, A.W.: Trans. Am. Geophysical Union, 1942, p. 704.

A5008 - 39R RCAF Oblique 7 x 9. Major fault-line scarp with branch scarp along the Taltson River, Northwest Territories. These faults are believed to be part of a zone of faults extending several hundred miles, from Lake Athabaska to Great Slave Lake. Reference: Geological Survey Map 607A.

A3783 - 41 RCAF Oblique 7 x 9. Hornby Bay fault, which extends at least 80 miles northeastward from Hornby Bay, Great Bear Lake. To the left of the fault are late Precambrian sandstone strata, and to the right are early Precambrian granite and other rocks. In places the fault is occupied by a giant quartz vein, which does not show in the photograph. References: Geological Survey Map 333A; Jolliffe, A.W.: Trans. Am. Geophysical Union, 1942, p. 700.

A5312 - 27 RCAF Vertical 7 x 9. The West Bay fault, near Baker Creek, Northwest Territories, where the Giant Yellowknife orebodies occur. The fault marks the contact between granite (upper left) and volcanic rocks (right). In the upper left corner of the photograph, two diabase dykes displaying columnar jointing intrude the granite. References: Geological Survey Maps 709A, 868A; Jolliffe, A.W.: Trans. Am. Geophysical Union, 1942, p. 703.

A5032 - 53L RCAF Oblique 7 x 9. West Bay fault, Yellowknife, Northwest Territories. Reference: Geological Survey Map 709A.

A5432 - 77L RCAF Oblique 7 x 9. Lineament marking site of fault in granite or gneiss. Drumlins show direction of glaciation. Barrens surrounding Campbell Lake, near north shore of Great Slave Lake. Reference: Bureau of Geology and Topography, Map 733A.

A0022 - 11, 13 RCAF Verticals 10 x 10. Views at north side of Beaverlodge Lake, northern Saskatchewan. The straight lineament extending northeasterly from the lake is the St. Louis fault. The curved valley nearly parallel to the north shore of the lake, stopping abruptly at the fault, marks an unconformity between older gneisses and sediments to the northeast and the Athabaska series of younger Precambrian sediments to the southwest. The peninsula in the southwestern part of the photograph shows ridges and depressions marking the position of interbedded sandstone and basalt strata of Athabaska age which here dip about 30 degrees northwest; forming the east side of a syncline. Reference: Beaverlodge Lake sheet, Geological Survey, (in preparation).

A4739 - 92L RCAF Oblique 7 x 9. Curved fault between Marian and Emile Rivers, Northwest Territories. Several miles of lateral displacement has probably occurred along this fault. It is occupied in places by giant quartz veins, which do not show well in the photograph.

A4739 - 4R RCAF Oblique 7 x 9. Southeast end of fault shown in A4739 - 92L.

A4641 - 239C RCAF Oblique 7 x 9. Mosher Lake fault, looking southeast. Near Mosher Lake, Northwest Territories.

A4644 - 235L RCAF Oblique 7 x 9. Lineament probably marking a fault, Northwest Territories.

A4084 - 1 RCAF Oblique 7 x 9. Probable fault in Coronation Gulf group, 30 miles up Western River, Northwest Territories.

A5433 - 25L RCAF Oblique 7 x 9. Branching lineaments thought to be parts of a great hinge fault extending 400 miles northeastward from Great Slave Lake. Reference: Bureau of Geology and Topography, Map 594A.

A3795 - 72 RCAF Oblique 7 x 9. View of Barren Lands, Northwest Territories, showing two lineaments at right angles, which represent faults or dykes, or both. Area not yet studied geologically.

A4644 - 260C RCAF Oblique 7 x 9. Contact between granite and Precambrian sedimentary rocks, Northwest Territories.

A5619 - 36, 38, 40 RCAF Verticals 7 x 9. Early Precambrian sediments (dark grey) intruded by granite (light grey) in bodies up to one-half mile in size and in small lit-par-lit injections. Late Precambrian diabase dykes (dark grey), showing columnar jointing in places, traverse both sediments and granite. Duncan Lake, N.W.T. References: Geological Survey Map 868A; Jolliffe, A. W., Trans. C.I.M., 1945 p. 603; Lobeck, A. K., Geomorphology, p. 613.

A5598 - 36 RCAF Vertical 7 x 9. Contact between granite (light) and greenstone (dark), Gordon Lake area, Northwest Territories. Reference: Geological Survey Map 645A, in southeast corner.

A5033 - 27C RCAF Oblique 7 x 9. Granite stock (white) intruding Precambrian sediments. East of Blatchford Lake, Northwest Territories. Reference: Jolliffe, A.W., Trans. C.I.M., 1945, p. 593.

A5121 - 49R RCAF Oblique 10 x 10. A granite mass intruding sediments forms the high region in the foreground, the sediments being more deeply eroded. Nonacho Lake area, Northwest Territories. Reference: Geological Survey Map 526A.

A5032 - 62R RCAF Oblique 7 x 9. Three separate bodies of granite (white), and several pegmatite dykes (white) intrusive into folded sedimentary strata (grey), Hidden Lake, Northwest Territories. Reference: Geological Survey Map 581A; also Ross Lake sheet (in press).

A8668 - 152, A8669 - 97 RCAF Verticals 10 x 10. Contact of granite (white) and folded strata of Yellowknife group, with a zone of pegmatite dykes near the contact. A large inclusion in the granite can be seen at the lower left. Reference: Geological Survey Map 581A.

A8668 - 45 RCAF Vertical 10 x 10. Granite mass truncating folds in sedimentary strata of Yellowknife group, Ross Lake area, Northwest Territories. Reference: Geological Survey Map of Ross Lake area (in preparation).

A8662 - 134 RCAF Vertical 10 x 10. Multiple gabbro dykes intruding granodiorite, all cut by a diabase dyke. Ross Lake area, Northwest Territories. Reference: Geological Survey Map of Ross Lake area (in preparation).

A8667 - 74 RCAF Vertical 10 x 10. A dyke cutting folded sediments shows as a long, narrow, dark band crossing the centre of the photograph. Beaulieu River area, Northwest Territories.

A8661 - 74 RCAF Vertical 10 x 10. Gabbro dykes (dark bands) intruding granodiorite, all cut by pegmatite dykes (short white bands). Ross Lake area, Northwest Territories. Reference: Geological Survey Map of Ross Lake area (in preparation).

A5120 - 5C RCAF Oblique 7 x 9. Four parallel valleys crossing granite northeast of Fort Smith, Northwest Territories. At least three have been eroded in diabase dykes, and at least one valley marks the location of a fault.

A3822 - 37 RCAF Vertical 7 x 9. Valley eroded in diabase dyke which diagonally crosses upturned quartzite strata. Vogler Cove, Nova Scotia. Reference: Geological Survey Map 1960.

A6470 - 69 RCAF Vertical 7 x 9. Large diabase dyke intruding granite. The granite is almost entirely covered by muskeg. Reference: Geological Survey Map 533A.

A8667 - 52 RCAF Vertical 10 x 10. Gabbro sills in folded strata of the Yellowknife Group, Northwest Territories. The sills are in the right half of the picture and, although they appear to have the same colour as the sediments, they stand out by erosion. The straight shoreline in the upper half of the photograph is caused by a diabase dyke which cuts the gabbro. Folds appear at the upper right.

A2036 - 35 RCAF Oblique 7 x 9. Mesas eroded in gently dipping sills of Keweenawan diabase, near Nipigon Village, Ontario. Trans-Canada Highway in foreground. Reference: Geological Survey Map 308A.

A5431 - 27R RCAF Oblique 7 x 9. Northerly-trending jointing (or gneissic structure) northeast of Artillery Lake, Northwest Territories. Reference: Bureau of Geology and Topography, Topographical Map 733A.

A3822 - 39 RCAF Vertical 7 x 9. Joint system in peneplaned, folded quartzite beds of Goldenville formation, Nova Scotia. Also shows sand beaches and tidal mud flat. Reference: Geological Survey Map 1960.

A3701 - 85 RCAF Oblique 7 x 9. View showing giant quartz veins, Beaverlodge Lake, Northwest Territories.

A3700 - 13 RCAF Oblique 7 x 9. Giant quartz vein, Canadian Shield, Northwest Territories.

A4740 - 81L RCAF Oblique 7 x 9. A curved fault zone is occupied by a quartz stockwork which appears as a single giant vein in the photograph, Snare River district, Northwest Territories. References: Geological Survey Map 690A; Jolliffe, A.W.: Trans. Am. Geophysical Union 1942, p. 700.

REGIONAL COLLECTION

CORDILLERA

WESTERN SYSTEM

T6 - 77L	RCAF	Tri.	10 x 10	St. Elias Mountains
T6 - 118L	"	"	" "	St. Elias Mountains
T7 - 22L	"	"	" "	St. Elias Mountains
BA - 1133	"	Oblique	7 x 9	Coast Mountains

INTERIOR SYSTEM

T14R - 159	RCAF	Tri.	10 x 10	Yukon Plateau - Porcupine Plain
T14L - 158	"	"	" "	" " "
T14L - 151	"	"	" "	" " "
T14L - 144	"	"	" "	" " "
T14R - 139	"	"	" "	" Porcupine Plateau
T4 - 85R	"	"	" "	" Porcupine Plain
T1 - 43R	"	"	" "	" Klondike Plateau
T1 - 36R	"	"	" "	" " "
T9 - 94L	"	"	" "	" " "
T7 - 132L	"	"	" "	" " "
T17R - 100	"	"	" "	" " "
T26L - 14	"	"	" "	" Nisutlin Plateau
T15R - 157	"	"	" "	" Tintina Valley
T20R - 68	"	"	" "	Selwyn Mountains, Hess Mountains

T22L - 81	RCAF	Tri.	10 x 10	Selwyn Mountains, Logan Mountains.
T17L - 64	"	"	"	"	Liard Plain
T17R - 72	"	"	"	"	" "

EASTERN SYSTEM

T29R - 25	"	"	"	"	Arctic Coastal Plain
T29L - 53	"	"	"	"	British Mountains and Arctic Plateau
T15R - 77	"	"	"	"	" "
T29L - 36	"	"	"	"	Arctic Plateau
T4 - 80R	"	"	"	"	Richardson Mountains
T5 - 22L	"	"	"	"	" "
T5 - 185R	"	"	"	"	Peel Plateau
T5 - 170L	"	"	"	"	" "
T5 - 161L	"	"	"	"	" "
T5 - 190L	"	"	"	"	" "
T4 - 61R	"	"	"	"	" "
T4 - 68L	"	"	"	"	" "
T4 - 99R	"	"	"	"	Mackenzie Mountains
T4 - 116R	"	"	"	"	" "
T12 - 51L	"	"	"	"	" "
T14R - 97	"	"	"	"	" "
T22R - 44	"	"	"	"	" "
T14L - 77	"	"	"	"	" "
T17R - 111	"	"	"	"	" "
T17R - 116	"	"	"	"	" "
T20L - 154	"	"	"	"	" "
T8 - 20L	"	"	"	"	" "
T17R - 151	"	"	"	"	" "
T17R - 186	"	"	"	"	" "
T17R - 141	"	"	"	"	" "

T4 - 130R	RCAF	Tri.	10 x 10	Mackenzie Mountains	
T4 - 157R	"	"	"	"	Mackenzie Plain
T14R - 44	"	"	"	"	" "
T12 - 15R	"	"	"	"	Franklin Mountains and Mackenzie Plain
T22L - 12	"	"	"	"	Franklin Mountains

CANADIAN SHIELD

BARRENS A4641 - 251C RCAF Obliquo 7 x 9. Typical view in barren part of Northwest Territories.

A4739 - 16L RCAF Oblique 7 x 9. Typical view in barren part of Northwest Territories.

CLAY BELT

A6473 - 5	RCAF	Vertical	7 x 9	Mistawak Lake Area, Quebec		
A6473 - 51	"	"	"	"	"	"
A6471 - 96	"	"	"	"	"	"
A6470 - 76	"	"	"	"	"	"

MAPPING COLLECTION

A10308 - 163 to 168 (6 photos) RCAF Verticals 10 x 10. North part of West Bay fault, Yellowknife, Northwest Territories, showing Giant Yellowknife mine. Approximate scale: 1 inch to 750 feet. Flight in southerly direction. References: Geological Survey Maps 709A, 868A; Campbell, N.: Trans. C.I.M., 1947, pp. 509-526.

A8668 - 70, 71, 72 RCAF Verticals 10 x 10. West Bay fault, Yellowknife, Northwest Territories. These cover part of the area of photographs A10308 - 163 to 168, but the flight was in a westerly direction before the present mining development. Approximate scale: 1 inch to 1,800 feet. References: Geological Survey Map 709A, 868A.

A3659 - 70, 71 RCAF Verticals 7 x 9. Folding in sedimentary strata of Cariboo Series, in Cariboo Mountains, British Columbia. Reference: Immediately east of northeast corner of Geological Survey Map 561A.

A8668 - 37, 38 RCAF Verticals 10 x 10. Folding in Precambrian strata. Locally, dips can be determined by stereoscopic inspection. Ross Lake area, Northwest Territories. Reference: Geological Survey Map 47-16.

A8661 - 83, 84 RCAF Verticals 10 x 10. Folds in Precambrian strata, truncated by faults. Ross Lake area, Northwest Territories. Reference: Geological Survey Map 47-16, Northwest corner.

A5598 - 9, 10, 11 RCAF Verticals 7 x 9. Folded and faulted Precambrian sedimentary strata. Gordon Lake area, Northwest Territories. Reference: Geological Survey Map 645A, in southwest corner.

A5710 - 6, 7 RCAF Verticals 7 x 9. Folding in Precambrian sedimentary strata. Gordon Lake area, Northwest Territories. Reference: Geological Survey Map 645A, near centre of western border.

A8666 - 40, 41 RCAF Verticals 10 x 10. Folding in sedimentary strata of Yellowknife group. Dips can be estimated with the aid of the stereoscope. Reference: Geological Survey Map of Ross Lake area (in preparation).

A7058 - 35, 36 RCAF Verticals 7 x 9. South end of McLeod Lake syncline, in Snow Lake area, Manitoba. Also shows Cleaver Lake fault and right-angled "break" to fault. The rocks are Precambrian sediments and basic lavas. The locality is about 1 mile east of the south end of Squall Lake. Reference: Geological Survey Map 46-9b; also map of File Lake area (in preparation).

A7060 - 14, 15 RCAF Verticals 7 x 9. Cross-folding in Precambrian sedimentary and volcanic gneisses. Reference: Report on File-Tramping area, Manitoba, in preparation.

A3520 - 43, 44, 45, 46 RCAF Verticals 7 x 9. Pleasant River Barrens dome in quartzite of Goldenville formation, Nova Scotia. The beds dip away from the centre of the dome at angles of 20 to 30 degrees. Several fractures, marked by vegetation, cross the strata diagonally. References: Geological Survey Maps 118, 436A.

A3766 - 89, 90, 91 RCAF Verticals 7 x 9. Leipsigate anticline in Goldenville formation, Nova Scotia. Also shows parts of six drumlins, upon which are clearings. Reference: Geological Survey Map 435A.

A3822 - 37, 38, 39, 40 RCAF Verticals 7 x 9. Anticline in quartzite of Goldenville formation crossed by fractures. Nova Scotia. Reference: Geological Survey Map 435A.

A8667 - 46, 47, 48 RCAF Verticals 10 x 10. Contact between granite and folded Precambrian sedimentary strata, the latter cut by pegmatite dykes. Ross Lake area, Northwest Territories. Reference: Geological Survey Map 47-16, southwest corner.

A5619 - 36, 37, 38 RCAF Verticals 7 x 9. Early Precambrian sediments (dark grey) intruded by granite (light grey) in bodies up to one-half mile in width and in smaller dykes and lit-par-lit injections. Late Precambrian diabase dykes (dark grey), showing columnar jointing in places, traverse both sediments and granite. Duncan Lake, N.W.T. References: Geological Survey Map 868A; Jolliffe, A.W., Trans. C.I.M., 1945 p. 603.

A5598 - 36, 37 RCAF Verticals 7 x 9. Greenstone - granite contact, both formations intruded by gabbro dykes. Gordon Lake area, Northwest Territories. Reference: Geological Survey Map 645A, in southeast corner.

A9109 - 76, 77 RCAF Verticals 7 x 9. Barchanes near Fort St. John, Peace River District, B.C. Submitted by S. Hunt.

A4745 - 28, 29, 30, 31 RCAF Verticals 7 x 9. Giant esker on outwash plain. Sand dunes on east side, indicating westerly winds. Chibougamau district, Quebec.

A4758 - 51, 52, 53 RCAF Verticals 7 x 9. Surface deposits, Chibougamau District, Quebec.

51 shows sand dune in south half. North half shows muskeg at east side and burned area at west side.

52 shows annual? moraines crossing drumlin.

53 shows hilly rocky area, partly burned and partly covered by green timber.

A4758 - 18, 19, 20 RCAF Verticals 7 x 9. Drumlins in Chibougamau District, Quebec. Also shows crag-and-tail effect, i.e. surface deposits tailing away from the sides of rock outcrops in the direction of glaciation.

A4943 - 85, 86 RCAF Verticals 7 x 9. Narrow morainal ridges in Chibougamau District, Quebec. They are thought to mark annual winter advances of the last ice-sheet, and the intervals between them to represent summer recessions.

REGIONAL COLLECTION[1]

(Detailed Descriptions of Pictures)

CORDILLERA

Western System

T6 - 77L R.C.A.F. Tri. . 10 x 10, 12,300', St. Elias Mountains, Yukon.

This view looks southwest from over Bear Creek down the valley of Alsek River and to the Icefield Ranges of St. Elias Mountains, of which Mt. Hubbard, 14,950 feet, and Mt. Vancouver 15,700 feet show as the two prominent peaks on the right side of the skyline. Nearly in the centre of the picture the Alsek River flows through a great gap in the Kluane Ranges, the front ranges of St. Elias Mountains, to join the Kaskawulsh River which comes in from the right or west of the picture.

Reference: Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T6 - 118L R.C.A.F. Tri. 10 x 10, 12,300', St. Elias Mountains, Yukon.

This view looks southwest into the heart of St. Elias Mountains. The valley of Slims River stretches diagonally across the picture flowing from the Kaskawulsh glacier, apparent in the left distance, to the bridge of the pioneer road for the construction of the Alaska Highway in the right foreground. About half way up the right border is the partly-timbered gravel fan of Bullion Creek. At the head of Slims River the west snout of Kaskawulsh glacier with its moraines shows behind a low arc of moraine supposed to have been formed by an advance which took place about 1800 A.D. Above it the ice lies stagnant for several miles at least. Along the skyline, projecting like great icebergs above the general level of lesser peaks which only reach to about 10,000 or 12,000 feet, reading from the left, is Mt. Hubbard, 14,900 feet,; Mt. Vancouver, 15,700 feet; Mt. Augusta, 14,700 feet; Mt. St. Elias, 18,000 feet; and at the right Mt. Logan, 19,850 feet, rising as a great plateau-like block much of whose surface is over 17,000 feet.

Reference: Bostock, H.S. : Geol. Surv., Canada, Mem. 247.

T7 - 22L R.C.A.F. Tri. 10 x 10, 12,000', St. Elias Mountains, Yukon.

This view looks southwest into St. Elias Mountains from a point over Edith Creek in Shakwak Valley. Kluane Ranges, the outer ridges of these mountains, show across the centre of the picture. Behind them the plateau-like area of the Duke Depression lies in front of the steepening slopes of the Icefield Ranges, the main ranges of the St. Elias mountains. On the right the lower part of Klutlan Glacier protrudes from the mountains with Mt. Bear, 14,850 feet, standing behind it across the boundary in Alaska. Along the skyline to the left stand Mt. Wood, 15,880 feet, Mt. Lucania, 17,150 feet, and Mt. Steele, 16,439 feet. Drumlin-like ridges elongated parallel to the Shakwak Valley show in the foreground.

Reference: Bostock, H.S.: Geol. Surv., Canada, Mem. 247.
Armstrong, J.E. and Tipper, H.W.: "Glaciation in North Central, B.C.," Am. Jour. Sci. Vol. 246, May 1948.

[1] To accompany Paper 47-26, by A.H. Lang, H.S. Bostock, and Y.O. Fortier.

BA11-33 R.C.A.F. Oblique 7 x 9 Coast Mountains

View in Coast Mountains showing typical erosion forms in Coast Batholith.

Interior System

T14R - 159 R.C.A.F. Tri. 10 x 10, 20,000', Yukon Plateau - Porcupine Plain

This view looks south over the Old Crow Plain and shows the remarkable rectilinear pattern of the muskeg lakes of this unglaciated region. The Old Crow River meanders with a marvellous serpentine course over the central part of the picture gradually entrenching its course below the general level of the plain on which the lakes lie.

Reference: Bostock, H.S.: Geol. Surv., Canada, Memoir 247.

T14L - 158 R.C.A.F. Tri. 10 x 10, 20,000', Yukon Plateau - Porcupine Plain

This picture looks north over the Old Crow Plain. It shows the remarkable rectilinear pattern of the muskeg lakes of this unglaciated region. A northern tributary of Old Crow River meanders onto the plain from the British Mountains in the distance. On the right a stream finds its way among the lakes in an unusual manner, commonly avoiding flowing through them.

Reference: Bostock, H.S.: Geol. Surv., Canada, Memoir 247.

T14L - 151 R.C.A.F. Tri. 10 x 10, 20,000', Yukon Plateau - Porcupine Plain

This view looks north over the Old Crow Plain and shows the remarkable rectilinear pattern of the muskeg lakes of this unglaciated region. Tributaries of Old Crow River meander across the plain in the distance in marvellous serpentine courses and beyond them a fringe of plateau country borders the British Mountains.

Reference: Bostock, H.S.: Geol. Surv., Canada, Memoir 247.

T14L - 144 R.C.A.F. Tri. 10 x 10, 20,000', Yukon Plateau - Porcupine Plain

This view looks north over the west part of Old Crow Plain, a subdivision of Porcupine Plain. It exhibits the remarkable rectilinear pattern of the muskeg lakes of this unglaciated region. Old Crow River meanders through the lake-studded plain avoiding the lakes. In the distance British Mountains form the horizon.

Reference: Bostock, H.S.: Geol. Surv., Canada, Memoir 247.

T14R - 139 R.C.A.F. Tri. 10 x 10, 20,000', Yukon Plateau - Porcupine Plateau

This view looks southward over the Porcupine Plateau. An area of the plateau country shows on the right and stretches away in the distance to the Old Crow Range. On the left side

a fringe of the Old Crow Plain spotted with lakes is apparent. The pattern of the creep of the slopes so typical of these latitudes shows well in the foreground.

Reference: Bostock, H.S.: Geol. Surv., Canada, Memoir 247.

T4 - 85R R.C.A.F. Tri. 10 x 10, 20,000', Yukon Plateau - Porcupine Plain

This view looks north along the flank of Richardson Mountains, which show on the right or east. The lakes on the left of the centre drain to Eagle River and thence to Porcupine River. The lakes appear to be due to a finger of the Pleistocene ice which extended west and northwest from the Peel Plateau and Peel River valley to the south of the picture.

Reference: Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T1 - 43R R.C.A.F. Tri. 10 x 10, 20,000', Yukon Plateau - Klondike Plateau

This view looks northeastward across Yukon River which flows to the north on the left. Stewart River enters the main river on the right. The drainage of Excelsior Creek occupies most of the right foreground. The picture shows a typical area of Klondike Plateau, well away from Pleistocene glaciation. The pattern of the drainage, the slopes developed in the dissection of the upland surface, and the truncation of the spurs between their tributaries by the master streams, are the chief features of interest.

References: Geological Survey of Canada, Geological Map, Ogilvie, No. 711A, scale 1 inch to 4 miles and 500-foot contour interval.

Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T1 - 36R R.C.A.F. Tri. 10 x 10, 20,000', Yukon Plateau - Klondike Plateau

This view looks northeastward down White River, across Yukon River, which flows to the northwest on the left, and up the valley of Stewart River in the distance. The area is typical of the Klondike Plateau and lies more than 75 miles beyond the limits of the Pleistocene ice front. Features of interest are drainage patterns and slopes developed in the dissection of the upland surface, and the truncation of the spurs between their tributaries by the master streams.

References: Geological Survey of Canada
Geological Map, Ogilvie No. 711A, scale 1 inch to 4 miles and 500-foot contours.
Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T9 - 94 L R.C.A.F. Tri. 10 x 10, 20,000' Yukon Plateau - Klondike Plateau

This view looks north over Ross River valley where it is joined by Prevost River, and along Sheldon Lakes across the Canol Road to Mt. Sheldon, the prominent peak near the central part of the picture. Beyond Mt. Sheldon the broad valley of the south fork of MacMillan River can be seen with the Hess Mountains rising in disconnected ranges.

References: Keele, J. : Geol. Surv., Canada, Pub. No. 1097 (1910).

Kindle, E.D.: Geol. Surv., Canada, Paper 45-21 2nd edition (1946).

Bostock, H.S.: Geol. Surv., Canada, Memoir 247.

T7 - 132L R.C.A.F. Tri. 10 x 10, 20,000', Yukon Plateau - Klondike Plateau

This view looks north over Drury Lake to Glenlyon Range and across the plateau drained by Pelly River and its tributaries. Among the interesting features of the picture is the marked scouring of the lower slopes of Drury Lake valley along which the ice moved from the right or southeast to left or northwest; the absence of scouring on the upper slopes; and some alpine glaciation among the highest levels.

Reference: Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T17R - 100 R.C.A.F. Tri. 10 x 10, 12,000', Yukon Plateau - Klondike Plateau

This photograph looks over the high Teslin Plateau south of Whitehorse and shows the Boundary Ranges of the Coast Mountains in the distance. It is a typical view of the plateau country where it borders the Boundary Ranges.

References: Cockfield, W.E. and Bell, A.H.: Geol. Surv., Canada, Mem. 150. (1923)

Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T26L - 14 R.C.A.F. Tri. 10 x 10, 12,000', Yukon Plateau - Nisutlin Plateau

This view looks north over Nisutlin Bay of Teslin Lake. The channels of Nisutlin River delta show well. In the distance isolated groups of mountains occur on the plateau, and, on the right, the northern end of the Stikine Ranges of Cassiar Mountains can be seen.

Reference: Bostock, H.S.: Geol. Surv., Canada, Memoir 247.

T15R - 157 R.C.A.F. Tri. 10 x 10, 12,000', Yukon Plateau - Tintina Valley

This view looks south across the Tintina Valley to the wall-like northeast front of Pelly Mountains. Left of the centre of the picture, Ross River, coming from the left foreground, joins Pelly River at Ross River Post where the Canol Road crosses Pelly River. On the right, beyond the big meander of Pelly River, the valley of Lapie River comes out of Pelly Mountains.

References: Keele, J.: Geol. Surv., Canada, Pub. No. 1097, (1910).
Kindle, E.D.: Geol. Surv., Canada, Paper 45-21, 2nd edition (1946).
Bostock, H.S.: Geol. Surv., Canada, Memoir 247.

T20R - 68 R.C.A.F. Tri. 10 x 10, 20,000', Selwyn Mountains, Hess Mountains.

This view looks north from almost directly over Keele Peak. In the foreground the rough spurs of the peak with their snowfield and alpine glaciers extend north toward the valley of Hess River. To the north a great valley trending northwest crosses the picture from the right and disappears in the distance on the left. Hess River heads among the mountains in the distance and after entering the valley, flows toward the peak and swings west. In the left foreground an alpine lake drains north to Hess River.

Reference: Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T22L - 81 R.C.A.F. Tri. 10 x 10, 20,000', Selwyn Mountains, Logan Mountains.

This picture looks south over one of the most rugged parts of the Logan Mountains. On the right South Nahanni River just shows and Brintnell Lake can be seen. On the centre and on the left the mountains are a mass of sharp ridges and peaks, at least partly of granitic rocks. They have been sculptured by alpine glaciers, of which several small ones still exist.

Reference: Bostock, H.S.: Geol. Surv. Canada, Memoir 247.

T17L - 64 R.C.A.F. Tri. 10 x 10, 12,000', Liard Plain

This view looks northeasterly over Liard Plain and shows Hyland River meandering southward in its valley entrenched in the surface of the plain. In the foreground a short stretch of the Alaska Highway shows on the right as it makes its way over the kettle-pocked drift surface of the plain. The Liard River is a few miles to the right of the photo.

References: Williams, M.Y.: Geol. Surv., Canada, Paper 44-28 (1944)
Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T17R - 72 R.C.A.F. Tri. 10 x 10, 12,000', Liard Plain.

This view looks south across Liard River some miles below or east of the mouth of Dease River. An esker stretches across the foreground and a much-pocked drift-area shows on the general surface of the plain between the esker and the rim of the entrenched valley of the Liard. To the south the plain stretches away and then the surface rises in timbered hills to meet Dease Plateau and Cassiar Mountains in the distance.

References: Williams, M.Y.: Geol. Surv., Canada, Paper 44-28 (1944).

Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

GSC99120 U.S.A.A.F. Tri. $6\frac{1}{2}$ x $6\frac{1}{2}$, Nechako Plateau.

View looking north over part of Nechako Plain, showing drumlins aligned in direction of glaciation.

Reference: Armstrong, J.E., et al., Geological Survey Paper 47-13

Eastern System

T29R - 25 R.C.A.F. Tri. 10 x 10, 20,000', Arctic Coastal Plain

View looking north over the Arctic Coastal Plain and out to the Beaufort Sea with its ice flows. On the extreme left - Herschel Island shows in the distance. The Coastal Plain is spotted with lakes which lie in the hollows of an undulating surface.

References: O'Neill, J.J.: "Report of the Canadian Arctic Expedition 1913-18", vol. XI, pt. A, (1924).

Bostock, H.S.: Geol. Surv., Canada, Memoir 247.

T29L - 53 R.C.A.F. Tri. 10 x 10, 20,000', British Mountains and Arctic Plateau

View looking south over the southeastern part of the British Mountains to the Arctic Plateau where it sweeps southward and forms a fringe between the mountains and the Porcupine Plain.

Reference: Bostock, H.S.: Geol. Surv. Canada, Memoir 247.

T15R - 77 R.C.A.F. Tri. 10 x 10, 20,000', British Mountains and Arctic Plateau.

This view looks north to the highest Canadian parts of British Mountains, which show their main ridges sprinkled with fresh snow in the distance. It shows the typical character of these mountains.

Reference: Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T29L - 36 R.C.A.F. Tri. 10 x 10, 20,000' Arctic Plateau

This picture looks south over the Arctic Plateau between Richardson and British Mountains. A tributary of Blow River flows towards the picture at the right. Mesa-like remnants of the old uplands of the plateau show well in the near distances, and, beyond, an isolated range breaks the general smoothness of the topography.

Reference: Bostock, H.S.: Geol. Surv., Canada, Memoir 247.

T4 - 80R R.C.A.F. Tri. 10 x 10, 20,000', Richardson Mountains.

This view looks north up the west flank of Richardson Mountains from near their south end. In the distance, the whole width of Richardson Mountains can be seen, so that on the left or west, Porcupine Plain stretches away in the distance, and on the right the surface of Peel Plateau is vaguely visible. Features of interest are the drainage pattern, dissecting of the surface which forms the tops of the ridges, the moraine-choked valley which was occupied by a finger of Pleistocene ice extending from Peel Plateau in the south-east beyond the view and causing the diversion of the main stream of the valley; and the drowning of one of its unglaciated tributaries by a morainal dam.

Reference: Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

Reference: Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T5 - 22L R.C.A.F. Tri. 10 x 10, 20,000', Richardson Mountains.

This view looks south along the length of the Richardson Mountains from their north end where they merge with the Arctic Plateau in the foreground. In the distance the broadest and most rugged part of these mountains shows. In the left distances they slope down to Peel Plateau.

Reference: Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T5 - 185R R.C.A.F. Tri. 10 x 10, 20,000', Peel Plateau.

View looking south across Peel Plateau to Mackenzie Mountains. The rounded bare hills of horizontal strata forming the top level of Peel Plateau show to good advantage, and the broad valley or hollow between these hills and Mackenzie Mountain is also apparent. The streams in this picture are tributaries of Snake River, a major tributary of Peel River. The youthful dissection of the plateau is very well shown.

Reference: Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T5 - 170L R.C.A.F. Tri. 10 x 10, 20,000', Peel Plateau.

This view looks south across the Peel Plateau from near the Arctic Red River and Peel River divide. The front of MacKenzie Mountains stretches away in the distance. On the left and right respectively, large tributaries of Arctic Red and Peel Rivers can be seen entrenched in the Plateau surface. A feature of particular interest is the large abandoned river course extending across the middle of the picture from Arctic Red River to Peel River. This is now occupied by a chain of lakes and appears to have been used by the waters of the Arctic Red River to escape to the Peel, when the Mackenzie River was still blocked by Pleistocene deposits and perhaps by ice. A second abandoned channel also exists at a slightly higher level in the right part of the picture.

Reference: Bostock, H.S.: Geol. Surv., Canada, Memoir 247.

T5 - 161L R.C.A.F. Tri. 10 x 10, 20,000' Peel Plateau.

This view looks south across the Peel Plateau to the front of Mackenzie Mountains in the distance. In the foreground Arctic Red River and one of its main tributaries join, their courses deeply entrenched in the youthful plateau. Less distinctly, in the near distance, the higher levels or steps of the plateau can be seen, and the top level shows as rounded hills.

References: Hume, G.S. and Link, T.A.: Geol. Surv., Canada, Paper 45-16 (1945)

Bostock, H.S.: Geol. Surv., Canada, Memoir 247.

T5 - 190L R.C.A.F. Tri. 10 x 10, 20,000', Peel Plateau.

This view looks north across Peel Plateau. The abandoned valley of the drainage channel from Arctic Red River to Peel River in late Pleistocene time shows in the foreground. The entrenched valley of Arctic Red River can be seen in the right distance.

Reference: Bostock, H.S.: Geol. Surv., Canada, Memoir 247.

T4 - 61R R.C.A.F. Tri. 10 x 10, 20,000', Peel Plateau.

This view looks north down Peel River from a point a few miles below the mouth of Snake River. Cretaceous sediments form the bedrock in this area. The river course is approximately 800 feet below the surface of the surrounding plateau. Features of interest include the braided river, youthful dissection of the adjacent plateau by its tributaries, the glaciated plateau surface, and the better growth of the forest in the localities where the ground thaws most.

References: Camsell, C.: Geol. Surv., Canada, Ann. Rept., vol. XVI, pt. CC, (1906)
Hume, G.S. and Link, T.A.: Geol. Surv., Canada, Paper 45-16 (1945)
Bostock, H.S.: Geol. Surv., Canada, Memoir 247.

T4 - 68L R.C.A.F. Tri. 10 x 10, 20,000', Peel Plateau.

This view looks south across Peel River east of or a little below Bonnet Plume River which flows north on the right to join the Peel just west of the picture. The Peel flows away to the east or left, entrenching its meanders in the youthful plateau. In the right distance or southwest the Bonnet Plume Basin shows as a low area spotted with lakes. Folded strata striking southeast form hills on the plateau east of Bonnet Plume River, and behind them in the distance Mackenzie Mountains show indistinctly.

References: Camsell, C.: Geol. Surv., Canada, Ann. Rept., vol. XVI, pt. CC, (1906).
Hume, G.S.; and Link, T.A.: Geol. Surv., Canada, Paper 45-16, (1945).
Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T4 - 99R R.C.A.F. Tri. 10 x 10, 20,000', Mackenzie Mountains.

This view is taken from a point just north of the Mackenzie Mountains east of Bonnet Plume River, which shows in the right distance just past Margaret Lake. Pleistocene glaciation covered the lower levels in the view but not the higher levels, and the lack of cirques in the nearer mountains is notable.

Reference: Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T4 - 116R R.C.A.F. Tri. 10 x 10, 20,000', Mackenzie Mountains.

This view looks south into Mackenzie Mountains from between Snake and Bonnet Plume Rivers. Features of interest are the lightness of glaciation in the foreground, and the progressive development of the alpine glaciation as the mountains are penetrated farther, and, in the distance, "biscuit-board" cutting in remnants of an even surface, and sharp alpine sculpturing.

Reference: Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T12 - 51L R.C.A.F. Tri. 10 x 10, 20,000', Mackenzie Mountains

This picture looks south along a tributary of Redstone River and shows a typical view of the Backbone ranges with their broad main valleys, mountains of tilted strata, and general lightness of alpine glaciation except in the highest or western parts. In the right foreground are apparently horizontal marks resembling those of a beach or glacial margin stream and these may show an upper limit of Pleistocene valley ice.

Reference: Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T14R - 97 R.C.A.F. Tri. 10 x 10, 20,000', Mackenzie Mountains

This view looks north over the ranges north of the main stream of the head waters of Redstone River. It shows the typical character of the southern members of the Backbone Ranges: wide valleys; prominently bedded strata; and great open folds giving broad areas of gentle dips. Here, where the elevations are higher, the carving of cirques by alpine glaciers was a more general feature than in the ranges to the east.

Reference: Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T22R - 44 R.C.A.F. Tri. 10 x 10, 20,000', Mackenzie Mountains.

View looking north over the southern part of Backbone Ranges. A sharply folded anticline is illustrated by a series of well contrasting light and dark strata. The anticline is so dissected as to bring out the traces of some beds in "flatiron" form. As it reaches into the distance the anticline is broken across and other more open structures are apparent. (In ordering this picture, contrasting paper should be requested).

Reference: Bostock, H.S.: Geol. Surv., Canada, Memoir 247.

T14L - 77 R.C.A.F. Tri. 10 x 10, 20,000', Mackenzie Mountains.

This view looks south over the Backbone Ranges near the head of Root River.

Reference: Bostock, H.S.: Geol. Surv., Canada, Memoir 247.

T17R - 111 R.C.A.F. Tri. 10 x 10, 12000', Mackenzie Mountains.

This view looks east down Keele River Valley from the Backbone and into the Canyon Ranges, from the junction of the Keele River, which flows from the right, and the Twitya River which enters the picture from the lower right.

References: Keele, J.: Geol. Surv., Canada, Pub. No. 1097 (1910).

Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T17R - 116 R.C.A.F. Tri. 10 x 10, 12,000', Mackenzie Mountains.

View looking east from the Backbone Ranges into Canyon Ranges north of Keele River, which appears in the right distance. It shows partially developed cirques of vanished alpine glaciers, and the general level of the summits of the Canyon Ranges, some of which are clearly truncated by an old surface.

Reference: Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T20L - 154 R.C.A.F. Tri. 10 x 10, 12,000', Mackenzie Mountains.

This view looks southeast across part of the Backbone Ranges, crowded with a mass of peaks and ridges. The Upper Keele River crosses the middle of the picture in a deep narrow valley lined on both sides by peaks.

Reference: Bostock, H.S.: Geol. Surv., Canada, Memoir 247.

T8 - 20L R.C.A.F. Tri. 10 x 10, 20,000', Mackenzie Mountains.

This view looks north across the tributaries of North Nahanni River towards those of Root River in the southern part of the Backbone Ranges. It shows mountains carved from sediments folded in an open anticline 20 miles and more across. The lack of glacial features is notable in some parts.

Reference: Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T17R - 151 R.C.A.F. Tri. 10 x 10, 12,000', Mackenzie Mountains.

View from the interior of the Canyon Ranges to the Mackenzie Plain. The picture is taken from over the Canol Road where it crosses the high plateau known as the Plains of Abraham. Fossils of lower Palaeozoic ages are reported from the gently warped strata which form this plateau, whose elevation is close to 6000 feet in places. The view is remarkable for the dissection of the plateau and for the lack of any evidence of glaciation.

Reference: Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T17R - 186 R.C.A.F. Tri. 10 x 10, 12,000', Mackenzie Mountains.

This view looks southeast over the front ridges of Canyon Ranges and out onto Mackenzie Plain. In the right foreground the Canol Road can be seen as it starts down to Dodo Canyon. A broad southeastward-plunging anticline forms the main feature of the picture. On the far or northeast side of the anticline Carcajou River, after traversing the nose of the structure, has cut a canyon.

References: Hume, G.S. and Link, T.A.: Geol. Surv., Canada, Paper 45-16 (1945)

Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T17R - 141 R.C.A.F. Tri. 10 x 10, 12,000', Mackenzie Mountains.

This view looks east over one of the plateaus in the Canyon Ranges. This particular plateau, formed of a large area of almost flat-lying Palaeozoic rocks in the middle of a broad anticline, and crossed by the Canol Road and pipe line which show in the left foreground, is known as the Plains of Abraham. The summit of the Canol Road on the surface of this plateau is 5608 feet. The stream on the right is the Carcajou River.

Reference: Bostock, H.S.: Geol. Surv., Canada, Memoir 247.

T4 - 130R R.C.A.F. Tri. 10 x 10, 20,000', Mackenzie Mountains

This view looks south at the north front of Mackenzie Mountains from over Peel Plateau, a few miles west of Arctic Red River, which shows on the left or east side of the picture.

References: Hume, G.S. and Link, T.A.: Geol. Surv., Canada, Paper 45-16 (1945).

Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T4 - 157R R.C.A.F. Tri. 10 x 10, 20,000', Mackenzie Plain.

View looking south from over Mackenzie River just below the mouth of Carcajou River, across Mackenzie Plain to the front of Mackenzie Mountains. The meandering Carcajou is well shown, and beyond it is the scarp of hills which forms the front of the higher part of the plain. Farther away the Mountain River can be seen emerging from the front of Mackenzie Mountains and following its entrenched valley through the higher part of the plain.

Reference: Hume, G.S., and Link, T.A.: Geol. Surv., Canada, Paper 45-16 (1945).

Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T14R - 44 R.C.A.F. Tri. 10 x 10, 200,000', Mackenzie Plain

This view looks north diagonally across Mackenzie Plain and River to McConnell Range of Franklin Mountains.

Reference: Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T12 - 15R R.C.A.F. Tri. 10 x 10, 20,000', Franklin Mountains and Mackenzie Plain.

This view looks northeasterly along the north end of Camsell Range where it extends as a long single ridge north of Root River. Fort Wrigley is near the centre-line of the picture on Mackenzie River, which enters on the right from the southeast, and flows away to the north in the distance. Beyond the river the south end of McConnell Range, the main range of Franklin Mountains, shows in the background.

References: Camsell, C. and Malcolm, W.: Geol. Surv., Canada, Sum. Rept. 1923, pt. B (1924).

Hume, G.S.: Geol. Surv., Canada, Sum. Rept. 1923, pt. B (1924).

Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

T22L - 12 R.C.A.F. Tri. 10 x 10, 20,000', Franklin Mountains.

This view looks south along the ridge of the south extremity of Camsell Range. Beginning at the bottom of the picture, North Nahanni River flows in a valley cut along an anticline, and is joined by Ram River, leaving the picture on the left. The wall-like ridge of Nahanni Range shows in the left distance. On the right the end of Camsell Range slopes west to Mackenzie Plain, beyond which the front ranges of Mackenzie Mountains show in the right distance.

Reference: Bostock, H.S.: Geol. Surv., Canada, Mem. 247.

Canadian Shield

A5118 - 59L R.C.A.F. Oblique 7 x 9

Typical barren-land view, showing abundance of outcrop, numerous lakes, and relation of shorelines to foliation of gneissic bedrock. Tourangeau Lake, Fort Smith district, Northwest Territories.