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NORTH AMERICAN SHEET (SP-5)
EDITION JANUARY 1945 SCALE 1:6,336,000 AT 65°N. (SHEET 4 OF 4).

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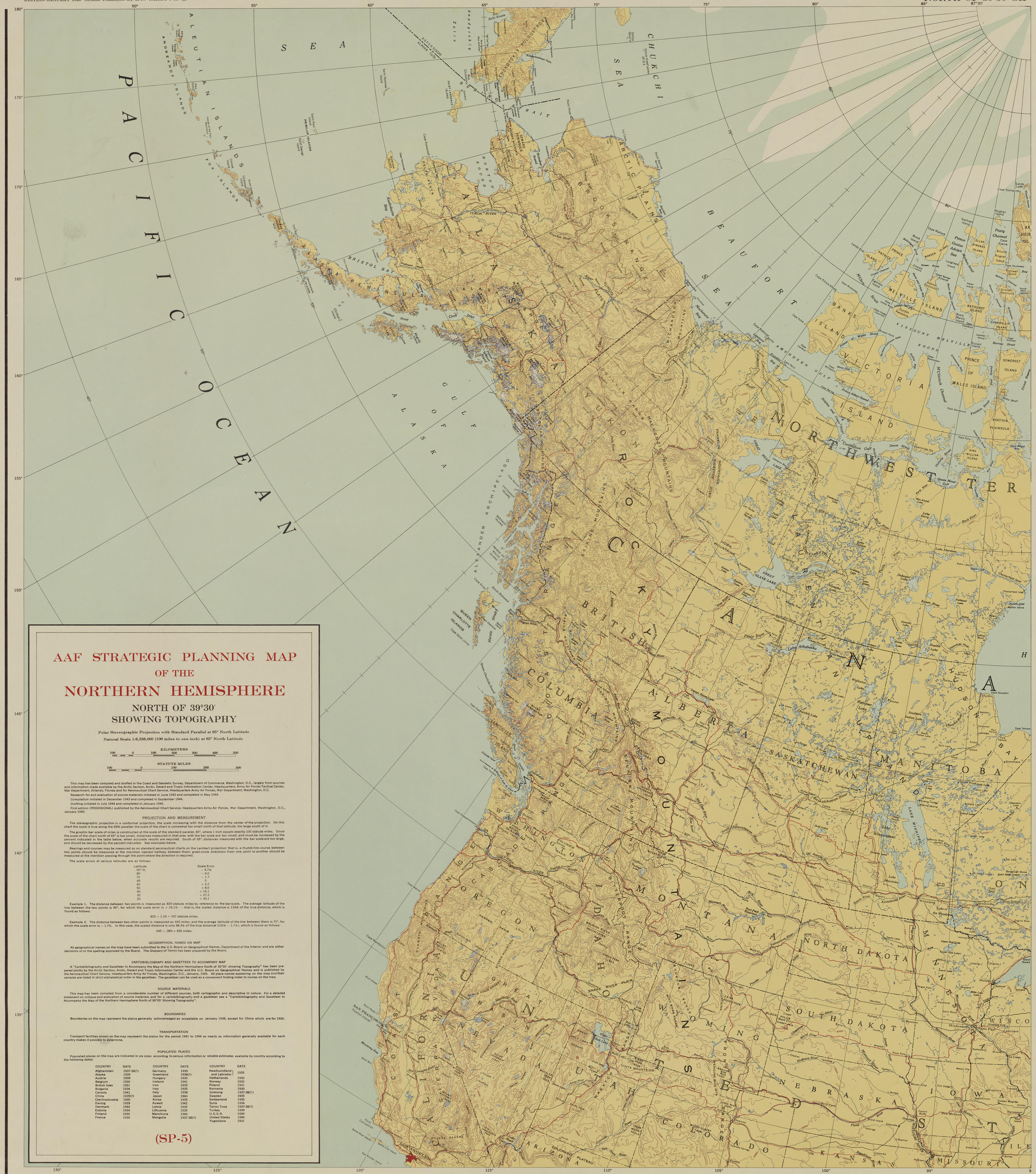
NORTH OF 39°30′ SH



AAF STRATEGIC PLANNING MAP OF THE NORTHERN HEMISPHERE

NORTH OF 39°30′ SHOWING TOPOGRAPHY

Polar Stereographic Projection with Standard Parallel at 65° North Latitude

Natural Scale 1:6,336,000 (100 miles to one inch) at 65° North Latitude

KILOMETERS

100 — 0 — 100 — 200 — 300 — 400 — 500

STATUTE MILES

100 — 0 — 100 — 200 — 300

This map has been compiled and drafted in the Coast and Geodetic Survey, Department of Commerce, Washington, D.C., largely from sources and information made available by the Arctic Section, Arctic, Desert and Tropic Information Center, Headquarters, Army Air Forces Tactical Center, War Department, Orlando, Florida and for Aeronautical Chart Service, Headquarters Army Air Forces, War Department, Washington, D.C.

Research for and evaluation of source materials initiated in June 1943 and completed in May 1944.

Compilation initiated in December 1943 and completed in September 1944.

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PROJECTION AND MEASUREMENT

The stereographic projection is a conformal projection, the scale increasing with the distance from the center of the projection. On this chart the scale is true along the 65th parallel; the scale of the chart is somewhat too small north of that latitude, too large south of it.

The graphic bar scale of miles is constructed at the scale of the standard parallel, 65°, where 1 inch equals exactly 100 statute miles. Since the scale of the chart north of 65° is too small, distances measured in that area with the bar scale are too small, and must be increased by the percent indicated in the table below, when accurate results are required. South of 65°, distances measured with the bar scale are too large, and should be decreased by the percent indicated. See examples below.

Bearings and courses may be measured as on standard aeronautical charts on the Lambert projection: that is, a rhumb-line course between two points should be measured at the meridian nearest halfway between them; great-circle directions from one point to another should be measured at the meridian passing through the point where the direction is required.

The scale errors at various latitudes are as follows:

Latitude	Scale Error
90° N.	− 4.7%
80	− 4.0
70	− 1.7
65	0
60	+ 2.2
50	+ 8.0
40	+ 16.1
30	+ 27.2
20	+ 42.1

Example 1. The distance between two points is measured as 820 statute miles by reference to the bar scale. The average latitude of the line between the two points is 40°, for which the scale error is + 16.1% · · · that is, the scaled distance is 116% of the true distance, which is found as follows:

820 ÷ 1.16 = 707 statute miles.

Example 2. The distance between two other points is measured as 645 miles, and the average latitude of the line between them is 70°, for which the scale error is − 1.7%. In this case, the scaled distance is only 98.3% of the true distance (100% − 1.7%), which is found as follows:

645 ÷ .983 = 656 miles.

GEOGRAPHICAL NAMES ON MAP

All geographical names on the map have been submitted to the U.S. Board on Geographical Names, Department of the Interior and are either decisions of or the spelling approved by the Board. The Glossary of Terms has been prepared by the Board.

CARTOBIBLIOGRAPY AND GAZETTEER TO ACCOMPANY MAP

A "Cartobibliography and Gazetteer to Accompany the Map of the Northern Hemisphere North of 39°30′ showing Topography" has been prepared jointly by the Arctic Section, Arctic, Desert and Tropic Information Center and the U.S. Board on Geographical Names and is published by the Aeronautical Chart Service, Headquarters Army Air Forces, Washington, D.C., January, 1945. All place names appearing on the map and their variants are listed in strict alphabetical order in the gazetteer. The gazetteer can be used as a convenient finding index to names on the map.

SOURCE MATERIALS

This map has been compiled from a considerable number of different sources, both cartographic and descriptive in nature. For a detailed statement on critique and evaluation of source materials and for a cartobibliography and a gazetteer see a "Cartobibliography and Gazetteer to Accompany the Map of the Northern Hemisphere North of 39°30′ Showing Topography".

BOUNDARIES

Boundaries on the map represent the status generally acknowledged as acceptable on January 1938, except for China which are for 1930.

TRANSPORTATION

Transport facilities shown on the map represent the status for the period 1941 to 1944 as nearly as information generally available for each country makes it possible to determine.

POPULATED PLACES

Populated places on the map are indicated in six sizes according to census information or reliable estimates available by country according to the following dates:

COUNTRY	DATE	COUNTRY	DATE	COUNTRY	DATE
Afghanistan	1937-38(?)	Germany	1939	Newfoundland and Labrador	1935
Alaska	1939	Greenland	1938(?)	Netherlands	1930
Austria	1939	Hungary	1930	Norway	1930
Belgium	1930	Iceland	1941	Poland	1931
British Isles	1931	Iran	1935	Rumania	1930
Bulgaria	1934	Iraq	1935	Sinkiang	1937-38(?)
Canada	1941	Italy	1936	Sweden	1935
China	1935(?)	Japan	1940	Switzerland	1930
Czechoslovakia	1930	Korea	1935	Syria	1936
Danzig	1929	Kuweit	1942	Tannu Tuva	1937-38(?)
Denmark	1940	Latvia	1935	Turkey	1939
Estonia	1934	Lithuania	1935	U.S.S.R.	1939
Finland	1930	Manchuria	1940	United States	1940
France	1936	Mongolia	1937-38(?)	Yugoslavia	1931

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Lithographed by ACS, 8-47