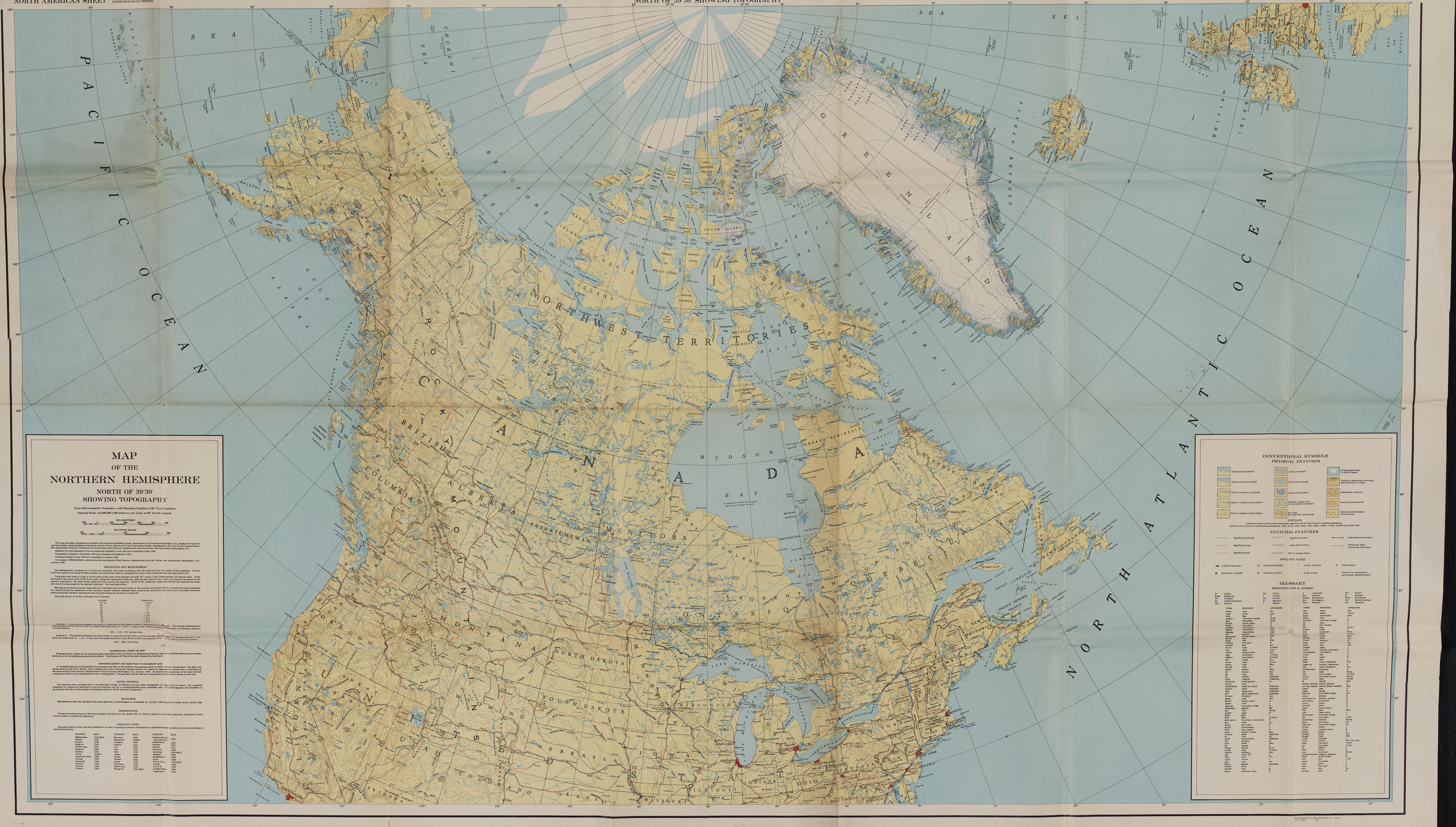
NORTH AMERICAN SHEET (JOINS EURASIAN SHEET)

MAP OF THE NORTHERN HEMISPHERE
NORTH OF 39°30′ SHOWING TOPOGRAPHY

EDITION JANUARY 1945 SCALE 1:6,336,000 AT 65° N.



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.

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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

CONVENTIONAL SYMBOLS
PHYSICAL FEATURES

Shore line (surveyed)	Lake (surveyed)	Unexplored Areas in Arctic Ocean
Shore line (unsurveyed)	Lake (unsurveyed)	Contours (essentially formline) Spot elevation (in feet)
River or stream (surveyed)	Lake (Intermittent)	Depression contours
River or stream (unsurveyed)	Glacier, ice-cap and/or permanent snowfield	Sand area (extensive)
River or stream (intermittent)	Dry Lake, Dry Salt Area (extensive)	Approximate poleward limit of trees

CONTOURS

Contours shown on this chart should be regarded only as form lines of probable elevations.
Contours are shown for the following elevations: 1000, 2000, 3000, 5000, 7000, 9000, 12000, 15000, 20,000 and 25000 feet.

CULTURAL FEATURES

Significant railroad	Significant canal	International boundary
Significant road	Great Wall of China	Provincial, State and Similar Boundary
Significant trail	Wall of Jenghis Khan	

POPULATED PLACES

▬ 1,000,000 and over	◎ 100,000 to 500,000	○ 10,000 to 50,000	Polar Station
◉ 500,000 to 1,000,000	⊛ 50,000 to 100,000	○ Under 10,000	■ Factor (Fur trading Post and Similar Establishment)

GLOSSARY

ABBREVIATIONS USED IN GLOSSARY

Ar	Arabic	Du	Dutch	J	Japanese	Pol	Polish
Bulg	Bulgarian	F	French	Kor	Korean	R	Russian
Ch	Chinese	Fin	Finnish	Mong	Mongolian	Rum	Rumanian
Cz	Czechoslovakian	G	German	Nor	Norwegian	S-C	Serbo-Croatian
Dan	Danish	I	Italian	Pers	Persian	Sw	Swedish

TERM	MEANING	LANGUAGE	TERM	MEANING	LANGUAGE
älven	river	Sw	kap	cape	Nor
bælt	strait	Dan	kara	black	Turkic
baie	bay	F	kavīr	salt desert	Pers
balkan	mountain range	Bulg	kawa	river	J
ben	mountain	Scot	khrebet	mountain range	R
bereg	shore, bank	R	ko	lake	J
Berg	mountain	G	kō	bay, harbor	J
bergen	mountains	Nor	köl	lake	Turkic
Bjærg	mountain	Dan	kryazh	ridge	R
Bjærge	mountains	Dan	kuh	mountain	Pers
bre	glacier	Nor	kum	sand	Turkic
Bredning	broad water	Dan	kyst	coast	Dan
Bucht	bay	G	landet	land	Nor
Bugt	bay	Dan	liman	estuary	R
bukhta	bay, gulf	R	maa	land	Fin
bukten	bay	Sw	man	bay	Kor
burnu	cape	Turkish	misaki	cape	J
cap	cape	Rum	mont	mount, mountain	F
chedo	island chain	Kor	montagnes	mountains	F
dağ	mountain	Turkisn	more	sea	R
dağlari	mountains	Turkish	mys	cape	R
dal	valley	Nor	nada	sea	J
darya	river	Turkic	Næs	point, headland	Dan
darya	river	Pers	nagor'ye	upland, highlands	R
dar'yä	river	R	nes	cape, headland	Nor
dasht	desert	Pers	nizmennost'	lowlands	R
do	island	Kor	nor	lake	Mong
elv	river	Nor	nos	point, cape	R; Bulg
ey	Island	Icelandic	nuruu	mountain chain	Mong
eyjar	Islands	Icelandic	nuur	lake	Mong
faktoriya	trading post	R	Ø	island	Dan
fiume	river	I	ostrov, ostrova	island, islands	R
fjarðardjúp	deep in a fjord	Icelandic	oy, oya, oyane	island, island, islands	Nor
fjörður	fjord	Icelandic	ozero	lake	R
fljót	large river	Icelandic	peski	sands	R
flói	bay, large fjord	Icelandic	planina	mountain range	S-C
forland	foreland	Nor	plato	plateau	R
gang	river	Kor	ploskogor'ye	plateau, upland	R
gavan'	harbor, port	R	poluostrov	peninsula	R
-gawa	river	J	proliv	strait	R
Gebirge	mountain range	G	ravnina	plain	R
Gletscher	glacier	Ger	rettō	island chain	J
gol	river	Mong	rūd	river	Pers
golets	peak	R	saki	cape, point	J
golfe	gulf	F	sammyaku	mountain range	J
gölü	lake	Turkish	san	mountain	J; Kor
gora, gory	mountain, mountains	R	shabartay	swamp	Mong
got	cape	Kor	shan	mountain	Ch
guba	bay, inlet	R	shan-mo	mountain range	Ch
guntō	archipelago	J	shima	island	J
Haff	bay, lagoon	G	sopka	volcanic cone	R
havn	harbor, haven	Dan	Spitze	peaks	G
hnúkur	peak	Icelandic	stredet	strait	Nor
ho	river	Ch	Strøm	river	Dan
hofði	promontory	Icelandic	suidō	channel	J
hōr	estuary	Ar	sund	sound	Nor, Sw, Dan
Huk	hook	Dan	tagh	mountain	Turkic
Île	Island	F	tau	mountain	Turkic
insula	island	Rum	tō	island	J
irmak	river	Turkish	tsep'	chain	R
Isfjord	ice-fjord	Dan	uula	mountain	Mong
iwa	rock, cliff	J	vozvyshennost'	heights, uplands	R
järvi	lake	Fin	Wald	wood, forest	G
-jima	island	J	wan	bay	J; Ch
joki	river	Fin	yama	mountain	J
jökull	glacier	Icelandic	-zaki	point	J
kaikyō	strait	J	zaliv	bay, gulf	R
kamen'	rock	R	zee	sea	Du
kanal	channel, canal	R	zemlya	land	R

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