

CONFIDENTIAL
11/GS/MG

Sweden

May 1973

NATIONAL INTELLIGENCE SURVEY

CONFIDENTIAL

Military Geography

NATIONAL INTELLIGENCE SURVEY PUBLICATIONS

The basic unit of the NIS is the *General Survey*, which is now published in a bound-by-chapter format so that topics of greater perishability can be updated on an individual basis. These chapters—Country Profile, The Society, Government and Politics, The Economy, Military Geography, Transportation and Telecommunications, Armed Forces, Science, and Intelligence and Security, provide the primary NIS coverage. Some chapters, particularly Science and Intelligence and Security, that are not pertinent to all countries, are produced selectively. For small countries requiring only minimal NIS treatment, the *General Survey* coverage may be bound into one volume.

Supplementing the *General Survey* is the *NIS Basic Intelligence Factbook*, a ready reference publication that semiannually updates key statistical data found in the Survey. An unclassified edition of the factbook omits some details on the economy, the defense forces, and the intelligence and security organizations.

Although detailed sections on many topics were part of the NIS Program, production of these sections has been phased out. Those previously produced will continue to be available as long as the major portion of the study is considered valid.

A quarterly listing of all active NIS units is published in the *Inventory of Available NIS Publications*, which is also bound into the concurrent classified Factbook. The Inventory lists all NIS units by area name and number and includes classification and date of issue; it thus facilitates the ordering of NIS units as well as their filing, cataloging, and utilization.

Initial dissemination, additional copies of NIS units, or separate chapters of the *General Surveys* can be obtained directly or through liaison channels from the Central Intelligence Agency.

The *General Survey* is prepared for the NIS by the Central Intelligence Agency and the Defense Intelligence Agency under the general direction of the NIS Committee. It is coordinated, edited, published, and disseminated by the Central Intelligence Agency.

WARNING

This document contains information affecting the national defense of the United States, within the meaning of title 18, sections 793 and 794 of the US code, as amended. Its transmission or revelation of its contents to or receipt by an unauthorized person is prohibited by law.

CLASSIFIED BY 019641. EXEMPT FROM GENERAL DECLASSIFICATION SCHEDULE OF E. O. 11652. EXEMPTION CATEGORIES 5B (1), (2), (3). DECLASSIFIED ONLY ON APPROVAL OF THE DIRECTOR OF CENTRAL INTELLIGENCE.

WARNING

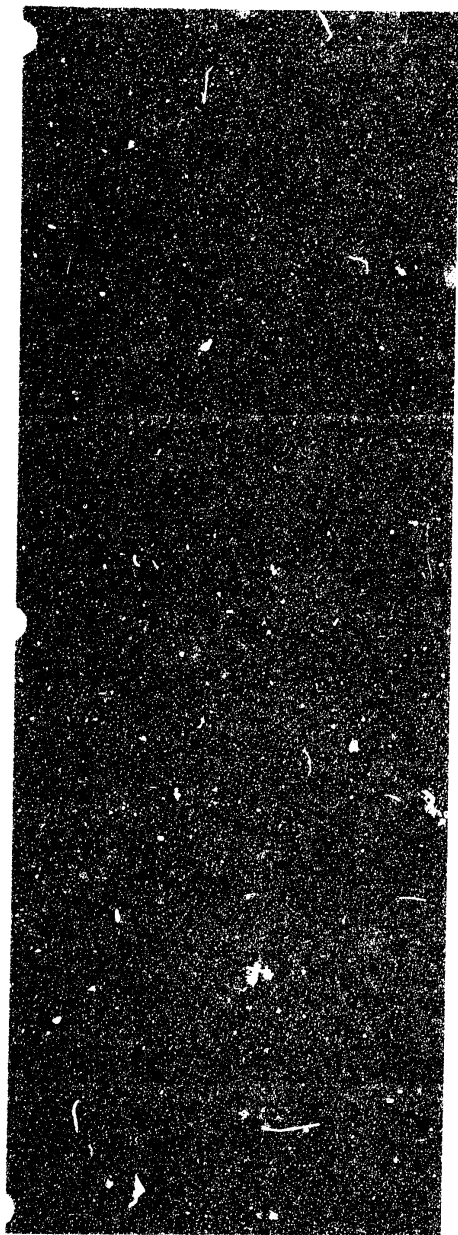
The NIS is National Intelligence and may not be released or shown to representatives of any foreign government or international body except by specific authorization of the Director of Central Intelligence in accordance with the provisions of National Security Council Intelligence Directive No. 1.

For NIS containing unclassified material, however, the portions so marked may be made available for official purposes to foreign nationals and nongovernment personnel provided no attribution is made to National Intelligence or the National Intelligence Survey.

Subsections and graphics are individually classified according to content. Classification/control designations are:

- (U/OU) Unclassified/For Official Use Only
- (C) Confidential
- (S) Secret

This chapter was prepared for the NIS by the Defense Intelligence Agency. Research was substantially completed by November 1972.



SWEDEN

CONTENTS

This General Survey supersedes the one dated September 1967, copies of which should be destroyed.

| | |
|---|---|
| A. General | 1 |
| 1. Topography | 1 |
| Surface configuration, drainage network, vegetation, state of the ground, and culture features. | |
| 2. Climate | 4 |
| Precipitation, cloudiness, visibility, relative humidity, temperatures, and thunderstorms. | |

CONFIDENTIAL

| | <i>Page</i> | | <i>Page</i> |
|---|-------------|--|-------------|
| B. Military geographic regions | 6 | D. Internal routes | 10 |
| Effect of terrain on operations by conventional ground forces, airmobile and airborne forces, amphibious forces, and irregular forces for the following regions: | | Tabular description of terrain, roads and railroads, and conditions for offroad dispersal and cross-country movement along routes leading from land and sea approaches to strategic areas and between strategic areas. | |
| 1. Southern and Coastal Lowlands | 6 | E. Approaches | 14 |
| 2. Interior Highlands | 7 | Description of boundaries with Norway and Finland. | |
| C. Strategic areas | 8 | 1. Land | 14 |
| Location, population, primary activities, key transportation elements, significant industries, and refined petroleum products storage capacity for the following areas: | | Conditions for movement across borders by road and cross-country. | |
| 1. Stockholm-Goteborg | 8 | 2. Sea | 14 |
| 2. South Coastal | 8 | Conditions for amphibious operations. | |
| 3. Other important areas | 9 | 3. Air | 16 |
| | | Weather conditions and terrain in air approaches within 200 nautical miles of borders. | |

FIGURES

| | <i>Page</i> | | <i>Page</i> |
|--|-------------|--|-------------|
| Fig. 1 Location and comparative areas (<i>map</i>) | 1 | Fig. 6 Coast northwest of Halsingborg (<i>photo</i>) | 7 |
| Fig. 2 Military geographic regions and terrain (<i>map</i>) | 2 | Fig. 7 Stockholm-Goteborg strategic area (<i>map</i>) | 9 |
| Fig. 3 Plain southeast of Halmstad (<i>photo</i>) | 3 | Fig. 8 Stockholm (<i>photo</i>) | 10 |
| Fig. 4 Mountains northwest of Kuuna (<i>photo</i>) | 3 | Fig. 9 South coastal strategic area (<i>map</i>) | 10 |
| Fig. 5 Precipitation, snowfall days, snow depth, relative humidity, thunder- storm days, cloudiness, and tem- peratures (<i>map and graphs</i>) | 5 | Fig. 10 Strategic areas, internal routes, and approaches (<i>map</i>) | 11 |
| | | Fig. 11 Internal routes (<i>table</i>) | 12 |
| | | Fig. 12 Land approaches (<i>table</i>) | 15 |
| | | Fig. 13 Amphibious landing areas (<i>table</i>) | 16 |
| | | Fig. 14 Terrain and transportation (<i>map</i>) | follows 17 |

Military Geography

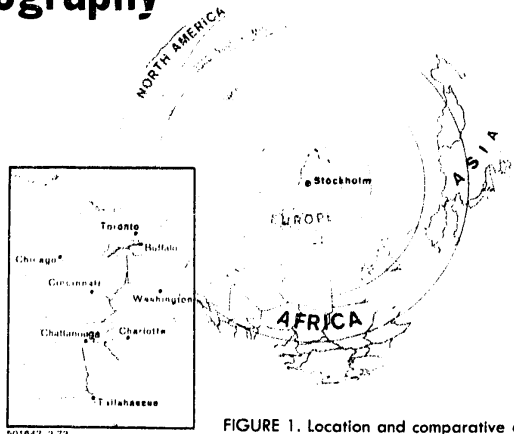


FIGURE 1. Location and comparative areas (U/OU)

A. General (U/OU)

Sweden, including the islands of Gotland and Oland,¹ is one of the largest countries in Europe and has an area of 173,000 square miles (about 10% larger than the state of California). More significant than land area, however, is the shape of the country; it extends north-south almost 1,000 miles² and has a maximum width of only 270 miles (Figure 1). Superimposed on the United States, Sweden would extend from Lake Ontario to the Gulf of Mexico (Figure 1). The estimated population of 8,133,000 is slightly less than the combined population of the states of Minnesota and Wisconsin.

1. Topography

Sweden is predominantly a land of forested hills and plains (Figure 2) traversed by many wide streams and

dotted with thousands of lakes and bogs. Plains occupy most of the southern third of the country (Figure 3) and extend northward along the Gulf of Bothnia, a broad belt of hills interspersed with scattered small plains constitutes most of the interior of Sweden, and a relatively narrow belt of rugged mountains extends along part of the border with Norway (Figure 4). The low, rocky, indented shore is fronted by numerous islets, islands, rocks, and shoals and backed by level to rolling plains. The plains are interrupted in many places by rounded steep-sided hillocks and eskers (long, sinuous, gravel and sand ridges). Most of the plains are less than 600 feet above sea level; however, south of Vattern (lake) and in the far north near the Finnish border there are areas between 600 and 1,500 feet in elevation. Extensive areas of smooth, level, cultivated plains are restricted to the extreme southern part of the country and the islands of Gotland and Oland. The hills are mostly low and rounded and generally separated by flat to rolling areas. The mountains also have rounded summits.

¹For diacritics on place names see list of names on the apron of the Terrain and Transportation map, the map itself, and maps in the text.

²Distances are in statute miles unless nautical miles are specifically indicated.

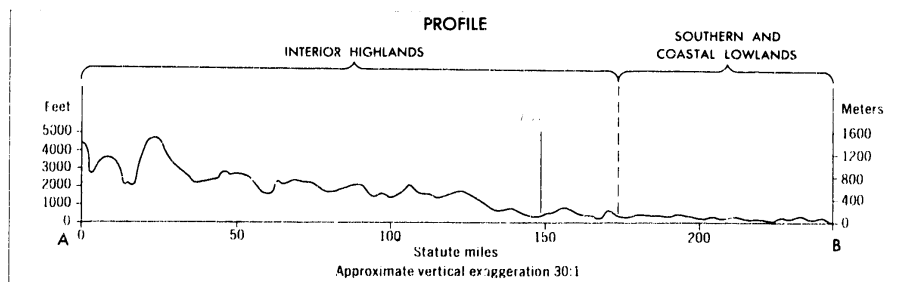
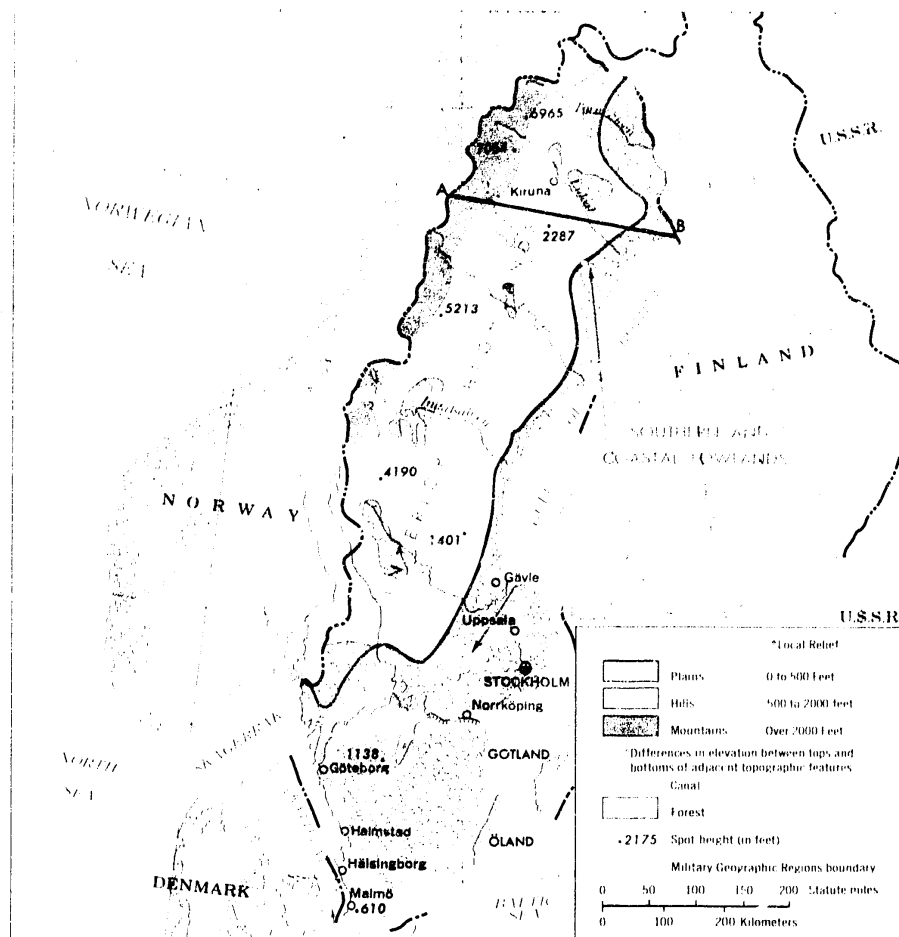


FIGURE 2. Military geographic regions and terrain (C)

Elevations are mostly between 1,500 and 2,000 feet in the hills and between 2,000 and 5,000 feet in the mountains, although several mountain peaks exceed 5,000 feet. The highest peak in the country has an elevation of 7,051 feet and is in northern Sweden about 20 miles from the Norway border. Local relief (differences in elevation between valley bottoms and adjacent crests) is less than 300 feet in the plains, 500 to 1,000 feet in most of the hills, and between 3,000 and 5,000 feet in the mountains. The hills adjacent to the mountains have a local relief of 1,700 feet. The hills and mountains commonly have rough rocky or bouldery surfaces.

The principal drainage features are numerous streams and thousands of lakes and wet areas (marsh, swamp, and bog). The larger streams generally originate in the mountains and flow southeasterly to the Gulf of Bothnia. Rapids and waterfalls are common in the upper and middle courses. Most streams are 250 to 500 feet wide in their upper courses and 500 to 1,000 feet in the lower courses. In their upper courses, many streams widen into elongated lakes that are 2 to 10 miles wide. All major streams are over 3.5 feet deep throughout the year except in rapids, and depths generally exceed 6 feet in wide sections and in lower courses. In the southern plains, the streams are 65 to 250 feet wide except near their mouths where most are 250 to 500 feet. Streambanks are predominantly low and gentle in the plains, and gorges are common in hills and mountains. Bottoms

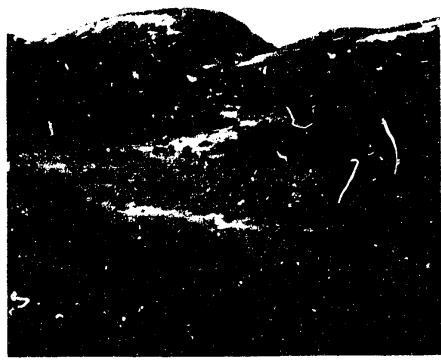


FIGURE 4. Rounded rocky summits are typical of the mountains of northwestern Sweden. The higher parts of the mountains are bare or covered by low shrubs, grass, and lichens. (U/OU)

are rocky and bouldery in the upper courses and in rapids and predominantly sandy, silty, and clayey in the middle and lower courses. Lakes and ponds range in depth from about 4 feet to 725 feet. The lakes range in size from less than 1 square mile to over 2,000 square miles and generally have steep banks. Vanern, the largest lake, is 90 miles long, 50 miles wide, and covers 2,111 square miles. Most drainage features are frozen from early November to mid-May in the northern part of the country and from mid-December to mid-March in the southern part. Flooding is common during the spring thaw, which normally begins in mid-March in the south and mid-May in the north, however, variation in stream flow has been reduced by large-scale harnessing of streams for hydroelectric power.

The plains and hills are mostly covered by dense needleleaf forest (mostly spruce and pine); however, in the south there are small scattered areas of moderately dense broadleaf deciduous forest (mostly birch, oak, and beech). Open forests of low birch occupy a zone on the western foothills and mountains between the needleleaf forest at lower elevations and the alpine vegetation consisting of low shrubs, grass, and lichens at higher elevations. Cultivated vegetation, chiefly grass and small grains, is concentrated in the plains in the south but occurs also in the north, mainly in the river valleys.



FIGURE 3. Level cultivated plains interspersed with forests are typical of most of southern Sweden. The cultivated areas of the plains present few problems for the construction of roads and airfields. (C)

Most of the ground is frozen and snow covered from late October to early May in the northern hills and mountains and from early December to early March in the southern plains. In the plains, snow accumulates to a maximum depth of several inches in the south and about 3 feet in the north in February and March. In the hills and mountains, snow generally accumulates to a maximum depth of about a foot in the south and at lower elevations and 6 feet or more in the northern mountains. In the extreme south and on the islands of Gotland and Oland, occasional thaws may melt all the snow. Throughout Sweden during the spring thaw the ground is wet and soft for a few weeks and then moist for the remainder of the period; however, bogs remain wet until frozen over.

Culture features have a dense pattern only in the southern plains of Sweden; culture features are moderately dense in the eastern part of the hills but are generally lacking in the mountains and higher hills. The southern plains contain most of the urban areas, most of the farms, and about 80% of the population of the country. Nearly one-fourth of the population lives in Stockholm, Goteborg, and Malmo. Urban areas commonly are along the coast or along rivers or lakes and generally have densely built-up central sections. Rectangular street patterns are common, and most streets are bituminous surfaced; some secondary and suburban streets have stone block, crushed stone, or gravel surfaces. Commercial, governmental, and institutional buildings and apartments are generally three to eight stories high and constructed of brick or concrete. Private residences are mostly one or two stories and built of wood; however, masonry is replacing wood as a construction material. Sheet metal, asbestos shingles, and tile are widely used for roofing. Farm buildings commonly consist of a one- or two-story wooden dwelling and several smaller wooden outbuildings. Fields are mostly small and irregularly shaped and generally are bordered by wire, wood, or stone fences. In the hills and mountains, significant culture features are numerous small towns and villages, scattered small farms, features associated with logging operations, and numerous dams and hydroelectric powerplants on the larger streams. Although one- and two-story wooden buildings are common on farms and in towns, most towns have numerous buildings of masonry construction. The typical street pattern in towns and settlements is rectangular; streets in the central sections of the larger towns are mostly bituminous surfaced. In the southern plains there is a dense network of roads and railroads; elsewhere, there is a sparse transportation network.

2. Climate

The climate of Sweden has marked seasonal variations. Winter (December through February) is cold and cloudy and light snows are frequent; summer (June through August) is cool to warm and less cloudy with occasional showers and thunderstorms. The generally cold, cloudy climate of Sweden is influenced greatly by two contrasting airstreams; one, a moist airstream from the North Atlantic, is relatively warm in winter and cool in summer; the other, a dry airstream from the continental interior, is very cold in winter and moderately warm in summer. The interplay between these two airstreams and the resulting weather conditions takes place under the influence of the migratory low-pressure centers and their associated frontal systems that frequently pass through or near Sweden.

During winter, mean daily minimum temperature, at elevations below 2,000 feet in the north range from about -5°(F.) to 15° (Figure 5); the higher elevations, however, are appreciably colder. In the south, mean daily minimums are mostly in the 20's. Absolute minimums throughout the country are well below zero, ranging from near 10° to 50°. During summer, mean daily maximum temperatures are generally between 50° and 65° in the north and between 65° and 70° in the south. Absolute maximums are mostly in the 80's and 90's; the lowest temperatures occur at the northernmost highland locations. Mean relative humidity is high in all parts of Sweden. Winter averages range mostly in the 80's and 90's (%) and late spring and summer percentages are in the 60's and 70's.

Precipitation is excessive nowhere in Sweden. Mean monthly averages range mostly from 2 to 4 inches in summer to 1 to 2 inches in winter. Showers and thunderstorms account for most of the summer precipitation, and light snows predominate in winter. The depth and persistence of the snow cover is greatest in the highlands of the north, where it is present in November through April, and maximum depths are 6 feet or more. In the south, snow cover is present much of the time from December through March, and maximum depths normally are below 1 foot. Thunderstorms are infrequent, occurring most often in summer. Thunderstorm days normally number 5 or less per month.

Cloudiness is greatest in winter, when monthly averages range between 60% and 80%. Late spring and early summer are least cloudy, and averages mostly are between 50% and 60%. In general, visibility is good; however, it is restricted to less than

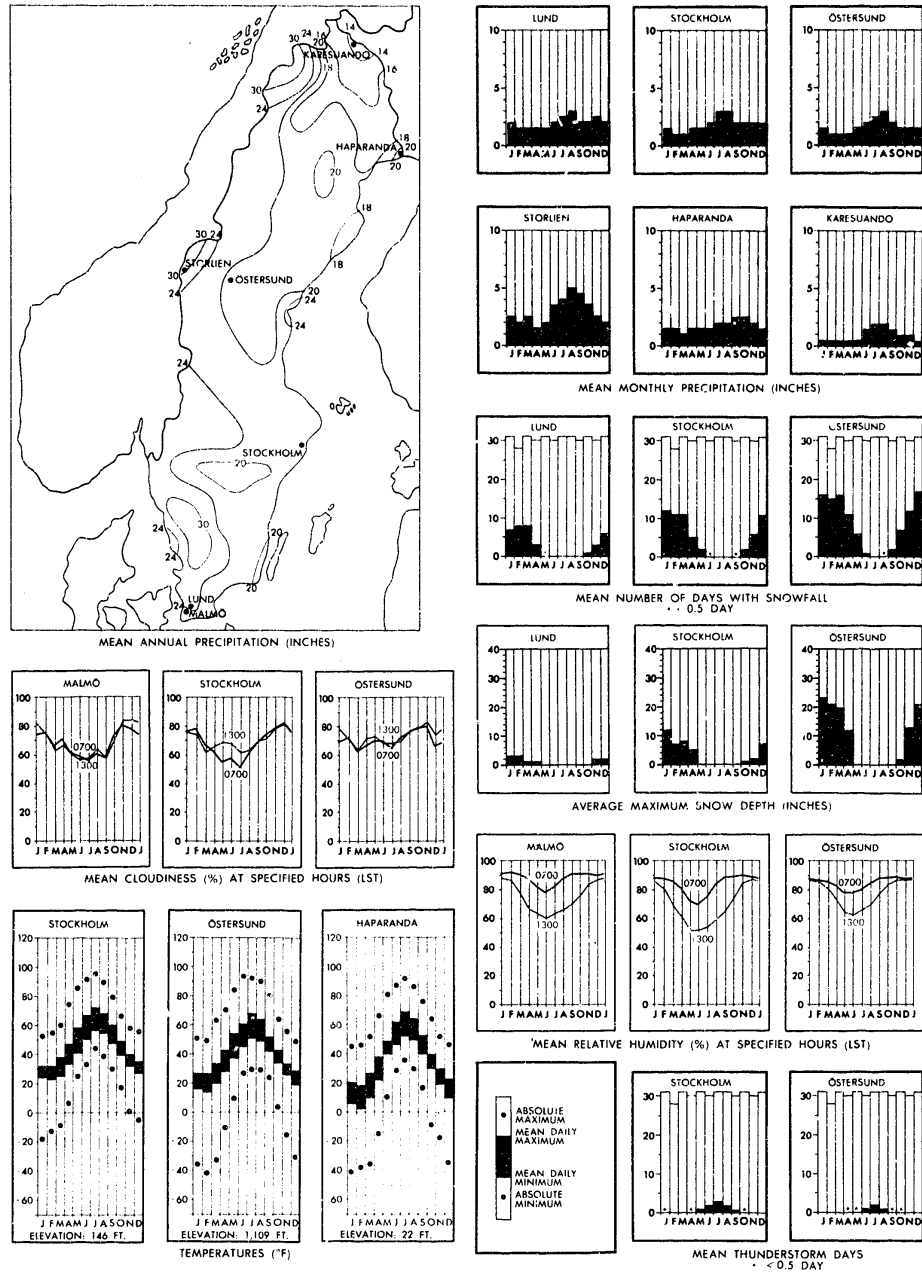


FIGURE 5. Characteristics of the climate (U/OU)

2½ miles at times in winter by snow and early morning fog and at times in summer by haze and smoke. The southern part of the area usually has the poorest visibility. The surface winds, variable in direction, usually average less than 16 knots, but speeds greater than 27 knots are occasionally recorded at many locations.

B. Military geographic regions (C)

There are two military geographic regions: the Southern and Coastal Lowlands and the Interior Highlands (Figure 2). Although the combination of environmental conditions within each region would have a relatively uniform effect on military operations, there would be marked differences between regions.

1. Southern and Coastal Lowland:

This region consists of low flat to rolling plains interrupted in many places by hillocks and eskers and covered by dense needleleaf evergreen forests except in the south where cultivated vegetation predominates. There are numerous streams and thousands of lakes, ponds, and wet areas, most of which are frozen from mid-November to early May in the north and from mid-December to mid-March in the south. The region is densely populated in the south, which has about 80% of the population of the country and most of the roads and railroads.

The southern and coastal lowlands are the most favorable part of the country for large-scale conventional ground operations; however, restrictions to onroad movement are numerous, and the terrain is unfavorable for road construction and cross-country movement. The road network in most of the area is sufficiently dense to provide alternate routes of movement. Most roads have bituminous or concrete surfaces in the southern part of the area and gravel or earth surfaces in the northern part; most are wide enough for two-way traffic. Roads can be built with few restrictions to alignments, but the difficulty of clearing dense forests, stabilizing foundations, and removing boulders make construction difficult. Numerous narrow, low capacity bridges, sharp curves, low underpasses, and in places steep grades would slow traffic throughout the year. Flooding and damage from freezing and thawing are additional hindrances. Dispersal from the roads generally would be precluded except in the cultivated areas where it would be possible most of the year and in the northern part of the region where it would be possible mainly in winter, when the ground and most water bodies are frozen. Possibilities for cross-country movement are

limited to the cultivated plains in the south and a few scattered open areas in the north; elsewhere, vehicular movement would be restricted to the roads by dense forest, bogs, lakes, and streams. In most of the region, concealment from ground and air observation would be afforded mainly by dense forests. Cover from flat-trajectory fire is lacking. The region is generally unsuited for construction of tunnel-type installations requiring horizontal or inclined adits, but bunkers could be constructed on the numerous eskers.

The region is poorly suited for airborne and airmobile operations because of forests, hillocks, wet areas, and lakes. The only suitable sites for parachute drops and helicopter landings are in the south, where there are large open areas. There are many existing airfields in the south but few in the north; in winter, frozen lakes and streams could be used as additional sites for landing assault-type aircraft. Numerous sites suitable for the construction of airfields are scattered throughout the region; however, dense forests, boulders, poor drainage, and frost heave present major problems.

The coast is mostly unsuited for amphibious operations because of obstructed and channelized approaches, flat nearshore gradients, rugged rocky shores, poor or unsuitable exits and cross-country movement conditions, and adverse weather conditions during most of the year. Offshore approaches are channelized by islands and numerous islets, rocks, and shoals; in addition, sea ice may be present along the coast during October to June. Nearshore approaches are encumbered by islets, rocks, shoals, sandbars, and scattered wrecks. The highly irregular coast is generally fringed by rocky and boulder-strewn shores (Figure 6) and backed by level to rolling forested plains. Long stretches of sandy shore backed by dunes are along the coast in the southern part of the country and on the islands of Olanc and Gotland. Surf 4 feet or higher occurs infrequently throughout the year in most areas; however, it may occur at any time on unprotected stretches of coast. Tides are negligible. The few usable beaches are along the southern coast. They are generally over 1 mile in length and largely composed of sand. Exits from the beaches are by tracks, trails, streets, and loose- or hard-surfaced roads or by cross-country movement to the hard- or loose-surfaced road network.

Conditions are generally favorable for irregular force operations. Excellent concealment would be afforded in most of the region by the dense forests. Cover from flat-trajectory fire would be lacking; however, some protection from small arms fire would be furnished by buildings in the urban areas and by

FIGURE 6. The steep, rocky coasts, typical of most of Sweden, are unusable for amphibious operations (C)



hillocks and eskers. Vehicular cross-country movement would be precluded except in the cultivated areas in the south and a few scattered areas in the north. Movement on foot would be possible almost everywhere. Most of the population is concentrated in the large urban areas along the coast and in settlements along the lakes and rivers. There is a dense network of roads and railroads in the south, and a moderately dense pattern elsewhere in the region. Food supplies could be obtained from the agricultural areas and in limited quantities from natural sources. Ample water is available throughout the region. Timber suitable for shelter material and firewood is available in the forested areas but is lacking in the cultivated areas. Major problems for irregular forces not properly equipped are the clouds of insects, especially mosquitoes, gnats, and flies, following the spring thaw and in winter the glare of sunlight reflected by snow. Prolonged exposure to the raw environment and, during winter, long periods of darkness, complicated by heavy overcast, would have detrimental effects on personnel. The rugged, mostly unprotected coast and the largely remote international borders could be clandestinely penetrated by small groups with little difficulty.

2. Interior Highlands

This region is primarily an area of rounded hills and mountains. The hills are separated by flat to rolling plains and valleys and are mostly less than 3,000 feet

in elevation. The mountains have elevations primarily between 3,000 and 5,000 feet; the highest peak in the country is 7,054 feet above sea level. Dense needleleaf evergreen forests cover most of the region, and numerous large, parallel, northwest-southeast trending streams flow across the region to the Gulf of Bothnia. Many streams in their upper courses widen to form elongated lakes, and many small lakes and wet areas are scattered throughout the region. Most drainage features are frozen from early November or mid-December to mid-March or mid-May; flooding is common during the spring thaw. The region is sparsely populated and most settlements are scattered along the stream valleys. The low-capacity transportation network is concentrated principally in the valleys and low hills and is inadequate to support sustained military traffic.

This region is predominantly unsuited for large-scale conventional ground operations. There are few roads and the terrain is unfavorable for road construction or cross-country movement. The road net is not sufficiently dense to provide alternate routes of movement, and it is mainly oriented north-south. The roads have crushed stone, gravel, or bituminous surfaces and are too narrow for two-way traffic. Movement on the roads would be easier during the winter when surfaces and subgrades are frozen. Narrow low-capacity bridges, sharp curves, and narrow streets in settlements would slow traffic throughout the year. Snowdrifts block many roads for

short periods during the winter, and many roads are in poor or impassable condition during the spring thaw. Dense forests, steep slopes, and numerous wet areas make road construction difficult, but many temporary roads are constructed each winter; many of them cross the frozen surfaces of lakes, streams, and bogs. Dispersal from the routes and cross-country movement would be difficult because of extensive forests and rugged terrain. Movement would be easier during the period from late October to early May, when the surfaces are frozen; during this period, however, movement may be adversely affected by deep snow, slippery surfaces, and low temperatures. In most of the region, cover from flat-trajectory fire and concealment from ground observation would be available from surface irregularities, and concealment from air observation would be afforded in dense needleleaf evergreen forests. During the period of snow cover special camouflage clothing and techniques for concealing positions and movements in a snow and forest landscape would be necessary. Tunnel-type construction would be hindered by gentle slopes, which make long adits necessary, or by unstable rock in areas of steep slopes. Bunkers could be constructed in the eskers scattered throughout the region.

The region generally is unsuited for airborne and airmobile operations. Parachute drops and helicopter landings would be restricted to the scattered cultivated areas in the larger valleys. Most sites for airfield construction are suitable only for small airfields. There are few existing airfields; however, in winter the thick ice cover of most lakes and streams affords many suitable sites for landing assault-type aircraft.

Conditions are favorable for irregular force operations. Excellent concealment possibilities would be afforded by the dense forests and rugged terrain. The irregularities in the terrain provide additional concealment from ground observation and afford cover from flat-trajectory fire. Vehicular cross-country movement would be precluded except in scattered small areas. Most of the population is concentrated in scattered small settlements in stream valleys. There are few settlements in the mountains and large areas are uninhabited; roads and railroads are sparse. Limited food supplies could be obtained from the scattered agriculture areas and from natural sources. Ample fresh water is available throughout the region. Timber suitable for shelter materials and firewood is available in the valleys and on lower hill and mountain slopes but is scarce or lacking at the higher elevations. Major problems for irregular forces not properly equipped are the numerous insects—mosquitoes, gnats, and flies—

following the spring thaw and snow glare. The remote international border could be clandestinely penetrated by small groups with little difficulty.

C. Strategic areas (C)

The two strategic areas in Sweden are the Stockholm-Goteborg strategic area and the South Coastal strategic area (Figure 10). They contain the largest cities and ports, major concentrations of population, important agricultural and mining areas, and are the principal industrial, transportation, communication, political, cultural, and economic centers of the country.

1. Stockholm-Goteborg

This area (Figure 7) is the cultural, political, industrial, and economic center of Sweden. It contains Stockholm (Figure 8) the capital and largest city (population about 1,500,000), and Goteborg (population about 450,000), which is the second largest city, the chief port, and the major outlet to the west. The area is heavily populated and has the densest transportation net, several of the major airfields, important mining areas, the most important agricultural area, and the greatest concentration of militarily significant industrial installations in the country. These installations include those producing mechanical and electrical equipment, automobiles, aircraft, armaments, rubber products, steel, ball and roller bearings, chemicals, textiles, and pulp. Goteborg is the largest shipbuilding and ship repair center in Sweden. Stockholm, Goteborg, Norrkoping (population about 95,000), and Gavle (population about 80,000) have extensive storage facilities for crude oil and refined petroleum products that have a total capacity of about 18 million barrels. Important oil refineries are located at Goteborg and near Stockholm. Most mines in the strategic area yield iron ore; deposits of copper and uranium ores and oil shale are also being worked. An inland waterway route enables small oceangoing vessels from the west to traverse the large inland lake of Vanern and smaller vessels to reach the east coast ports through a connecting canal system.

2. South Coastal

This area (Figure 9) is the second most important agricultural area and contains several large ports and major airfields. An important naval base is at Karlskrona (population about 45,000). Malmo (population about 260,000) is the third largest urban

area in the country and a significant port. Important industrial installations include those producing mechanical and electrical equipment, light aircraft, machine tools, copper, cement, chemicals, rubber products, and textiles. Malmo and Halsingborg (population about 83,000) have storage facilities for crude oil and refined petroleum products that have a total capacity of about 4,300,000 barrels.

3. Other important areas

The towns of Sundsvall, Kiruna, Lulea, and Boden are important ports, major transportation nodes, or mining centers in central and northern Sweden, and Kalmar is an important commercial center and port on the Baltic Sea coast of southern Sweden.

Sundsvall (population about 65,000) is a center for the large lumber and pulp industry in central Sweden. It is also a transportation center and major port and contains plants producing mechanical and electrical equipment and chemicals. Important hydroelectrical plants are just north of the town, mainly on the Indalsalven and Angermanalven, and a permanently surfaced airfield is nearby. Refined petroleum products storage facilities have a capacity of about 792,000 barrels.

Kiruna (population about 36,500) is an important mining center in northern Sweden, situated near the largest deposit of high-grade iron ore in Europe. The terminal of the highway from the Gulf of Bothnia, Kiruna's permanently surfaced airfield is the northernmost civil field in Sweden.

FIGURE 7. Stockholm-Goteborg Strategic Area (C)

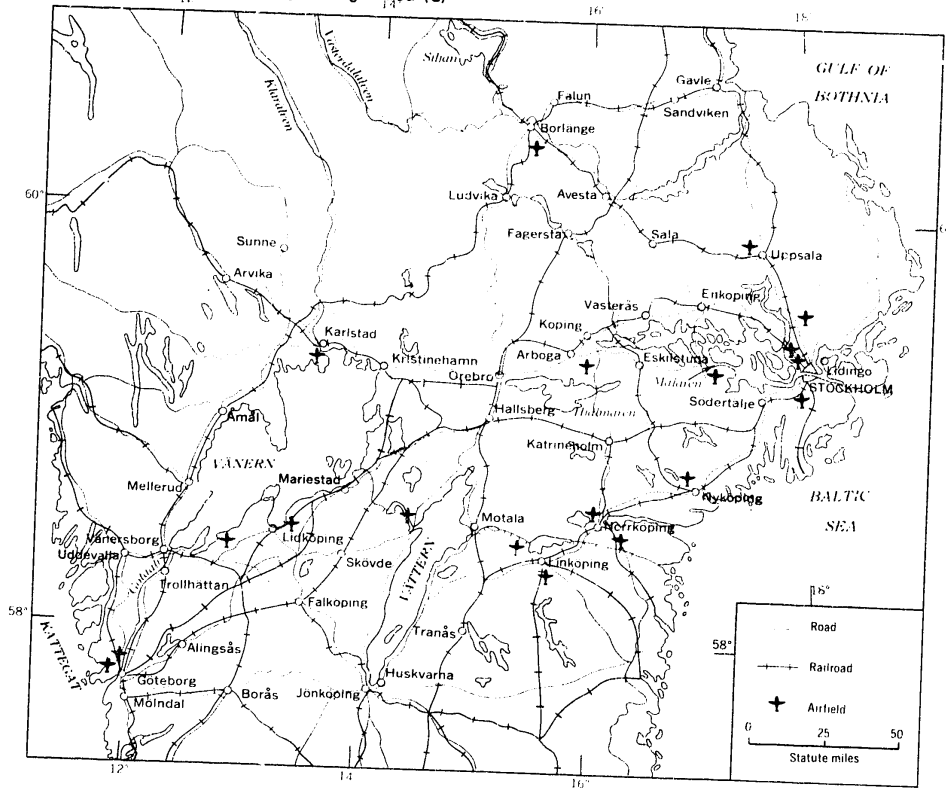




FIGURE 8. This section of the city (Staden Mellan Broarna) has many multistory buildings and numerous steeples. The street network, foreground, is one of numerous networks connecting the northern and southern parts of the city. (U/OU)

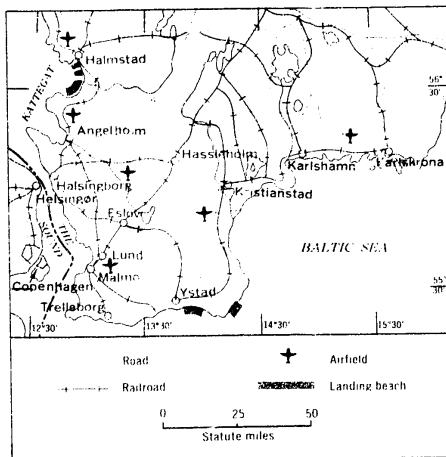


FIGURE 9. South Coastal Strategic Area (C)

Kalmar (population about 32,000) is an important commercial center on the Baltic Sea coast of southern Sweden and a major port. Industrial installations produce fertilizer, railroad rolling stock, pulp, paper, other wood products, glass, and ceramics; there are also shipbuilding and repair facilities. Nearby is a permanently surfaced military airfield.

D. Internal routes (C)

The internal routes (Figure 10) are the easiest avenues of movement between the land approaches and the strategic areas and between the strategic areas. The amphibious landing areas are adjacent to the South Coastal strategic area. Within the internal routes the established transportation lines have low logistic capabilities and are vulnerable to interdiction. The roads are in poor to good condition and have concrete, bituminous, bituminous-treated, stone

Lulea (population about 65,000) is an important iron and steel center in northern Sweden and a major port on the Gulf of Bothnia for shipment of iron ore from Kiruna. Refined petroleum products storage facilities have a capacity of about 185,000 barrels. Nearby is a permanently surfaced military airfield.

Boden (population about 30,000) is an important railroad center in northern Sweden, an army district headquarters, the center of the most heavily fortified defense zone in Sweden, and the site of extensive underground installations.

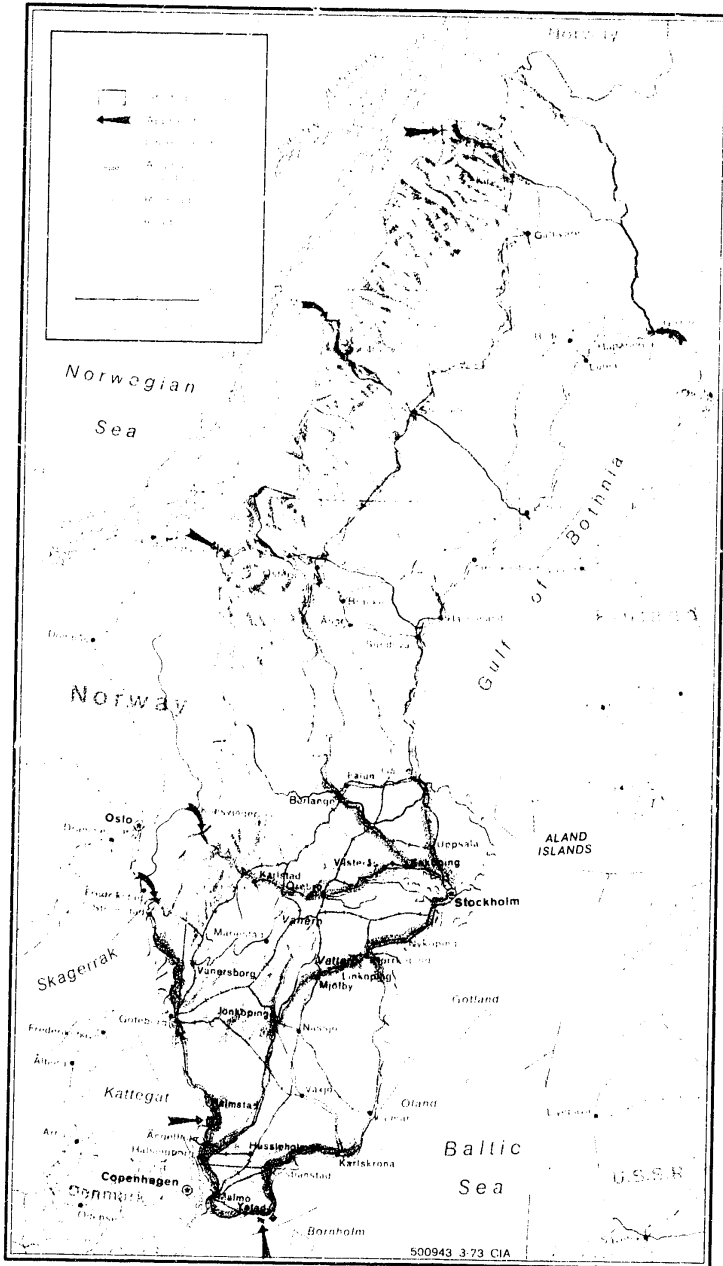


FIGURE 10. Strategic areas, internal routes, and approaches (C)

FIGURE 11. Internal routes (C)

| ROUTE | ROAD | RAILROAD | OFFROAD DISPERSAL AND CROSS-COUNTRY MOVEMENT |
|---|---|---|--|
| Finland border to Stockholm in Stockholm-Goteborg strategic area. Across predominantly forested coastal plain having many bogs, swamps, and streams. Vegetation needleleaf evergreen forests and scattered cultivated crops. | Finland border to Ornskoldsvik mostly two lanes, bituminous or gravel surface; Ornskoldsvik to Stockholm mostly 2 to 4 lanes, bituminous, short stretches near large towns and 27-mile stretch north of Stockholm 4-lane divided highway, fair to good condition. Potential bottlenecks include numerous bridges and underpasses. | Single track, 4'8 1/2" gage, Finland border to Uppsala; double track, 4'8 1/2" gage, Uppsala to Stockholm; electrified from Boden to Stockholm; in good condition. Finland border to just north of Harnosand railroad 10 to 25 miles inland from road. Numerous bridges constitute potential bottlenecks. | Severely hindered or precluded in most areas by dense forests, swamps, bogs, and streams; fair in scattered cultivated areas. |
| Norway border near Narvik to Stockholm in Stockholm-Goteborg strategic area. Predominantly across densely forested mountains and hills cut by deep northwest-southeast trending valleys. Vegetation needleleaf evergreen and broadleaf deciduous forests, alpine shrubs, and scattered areas of cultivated crops and grass. | Norway border to Kiruna and Gallivare to Borlange 1 lane, Kiruna to Gallivare and Borlange to Stockholm 2 lanes; poor to good condition. Norway border to Kiruna primarily earth, some stretches of gravel surface. Kiruna to Borlange mostly gravel surfaced, Borlange to Stockholm bituminous surfaced. Blocked by deep snow for short periods during winter; road may be in poor condition in places during spring thaw. Many sharp curves and steep grades. | Single track, 4'8 1/2" gage, electrified between Norway border and Gallivare and between Borlange and Stockholm; in good condition. Subject to blockage by snowdrifts in winter; numerous bridges and tunnels potential bottlenecks. | Conditions for offroad dispersal and cross-country movement are generally unsuited because of steep slopes and forests in the hills and mountains and swamps, bogs, and numerous lakes and streams in the valleys. |
| Norway border near Mo to Stensele on northern Norway-Stockholm internal route. Mainly in river valleys and along lake shores through rugged mountains. Vegetation mainly broadleaf deciduous forests, needleleaf evergreen forests, and, at higher elevations, alpine shrubs. | One lane, gravel surfaced, fair to good condition. Blocked by snow during winter; some sections subject to flooding during spring thaw. | None | Steep slopes and dense forests preclude most cross-country movement and afford few possibilities for offroad dispersal. |
| Norway border near Trondheim to northern Norway-Stockholm internal route at Oster-sund. Across narrow band of rugged mountains, hills, and plains. Vegetation dense needleleaf evergreen forests, small cultivated areas, and shrubs. | Four lanes, bituminous, good condition; sometimes blocked by snow in winter. | Single track, 4'8 1/2" gage, electrified, in good condition. | Steep slopes, dense forests, and poorly drained areas severely restrict cross-country movement and afford few possibilities for offroad dispersal. Deep snow in winter and soft miry ground during spring thaw further hinder movement. |
| Norway border near Kongsvinger to northern Norway-Stockholm internal route at Enkoping. Across predominantly forest hills and plains in west and cultivated plains in east. Vegetation mostly needleleaf evergreen forests, cultivated crops, and grass. | Two lanes, bituminous surfaced; in fair to good condition. Two underpasses that have low vertical clearance potential bottlenecks. | do | In west, dense forests, steep slopes, and poorly drained areas restrict or preclude cross-country movement and make offroad dispersal possible only locally. In east, conditions are fair for cross-country movement and offroad dispersal. Deep snow in winter and soft miry ground during spring thaw hinder movement. |

| | | | |
|---|---|---|---|
| <p>Norway border near Fredrikstad to Goteborg in Stockholm-Goteborg strategic area. Across poorly drained plains containing many small lakes and bogs. Surface of plains interrupted in many places by hillocks and long sinuous sand and gravel ridges. Vegetation chiefly dense needleleaf evergreen forests, scattered cultivated areas, and shrubs.</p> | <p>Mostly 2 lanes, 4 lanes near Goteborg, bituminous, concrete, and some cobblestone; fair to good condition. Three underpasses with low vertical clearance potential bottlenecks.</p> | <p>Single track, 4'8 1/2" gage, electrified, in good condition, parallels all but northern 20 miles of route. Another single-track, 4'8 1/2"-gage, electrified railroad in good condition parallels route but is as much as 30 miles inland.</p> | <p>Dense forests, rocky and bouldery surfaces, steep-sided hillocks, lakes, and soft miry ground restrict or preclude cross-country movement and limit offroad dispersal to a few local areas. Limited movement possible when ground frozen.</p> |
| <p>Amphibious landing area near Ystad to Goteborg in Stockholm-Goteborg strategic area. Across level to rolling plains with scattered hillocks. Vegetation predominantly cultivated crops, grass, and scattered areas of needleleaf evergreen forest.</p> | <p>Mostly 2 lanes, Malmo to Angelholm and other short stretches 4 lanes; mostly bituminous surfaced; good condition. Underpasses having low vertical clearance and urban areas potential bottlenecks.</p> | <p>Single track, 4'8 1/2" gage, mostly electrified, in good condition.</p> | <p>Offroad dispersal and cross-country movement generally fair except in vicinity of urban areas and during spring thaw when ground is soft and miry.</p> |
| <p>Amphibious landing area near Ystad to Stockholm. Across coastal plain containing numerous bogs. Vegetation mainly needleleaf evergreen forests and scattered areas of cultivated crops.</p> | <p>Mostly 2 lanes, bituminous or concrete surfaced, some cobblestone, some gravel; 4 lanes near Stockholm; good condition. Underpasses and urban areas potential bottlenecks.</p> | <p>Mostly single track, 4'8 1/2" gage; in good condition; parallel to road only between Ystad and Karlskrona and between Norrkoping and Stockholm; electrified Norrkoping to Stockholm. From Karlskrona rail line goes NW to line between Halsingborg and Norrkoping.</p> | <p>Dense forests, bogs, and, locally, steep slopes preclude or restrict cross-country movement and offroad dispersal to small scattered cultivated areas.</p> |
| <p>Halsingborg to Ystad-Stockholm internal route at Norrkoping. Across dissected, poorly drained plain containing many small lakes and bogs. Vegetation mainly needleleaf evergreen forests and scattered cultivated crops.</p> | <p>Mostly 2 lanes, several short stretches of 4 lanes; bituminous surfaced, fair to good condition.</p> | <p>Mostly double track, 4'8 1/2" gage, electrified, in good condition; as much as 20 miles east of road as far as Mjølby.</p> | <p>Dense forests, numerous small lakes, and bogs severely restrict cross-country movement and afford few possibilities for offroad dispersal in most areas. In cultivated areas near Halsingborg and southwest of Norrkoping conditions are fair.</p> |

block, cobblestone, crushed stone, or gravel surfaces; however, a few short sections are unsurfaced. In most of Sweden, highway traffic is restricted by snow and ice in the winter months and by flooding and soft surfaces during the spring thaw. Other restrictions to highway traffic include many sharp curves and steep grades, narrow roadways, narrow, low-capacity bridges, and low vertical clearance at bridges and underpasses. Many miles of roads throughout the country have no shoulders. Most of the railroads are electrified, single track, 4'8 1/2" gage, and have numerous bridges and tunnels. The rail lines are mostly in fair to good condition and have high capabilities and could support sustained traffic. Extended periods of heavy snow, flooding, and frost heaving during the spring thaw present difficult maintenance problems for both roads and railroads. Data on internal routes are shown in Figure 11.

E. Approaches

The perimeter of Sweden, including the islands of Gotland and Oland, is about 3,365 miles. Land boundaries total 1,365 miles, and the coastline excluding the numerous small islands, islets, and minor indentions, is about 2,000 miles in length. Territorial waters extend 4 nautical miles seaward from the coast except in The Sound where 2 nautical miles are claimed. In The Sound the boundary with Denmark is aligned along the main navigational channel. (U/OU)

The 1,030-mile border with Norway, longest of the land boundaries, extends for most of its length along mountain ridges and across rounded hills. In the extreme south there are small areas of plains. Vegetation consists mostly of low shrubs, grasses, and lichens on the mountains and forest on the hills and plains. The border is demarcated and undisputed. (U/OU)

The 335-mile border with Finland is marked by deep, wide streams, which flow through the hills in the extreme north and across plains elsewhere. Vegetation consists mainly of needleleaf evergreen forest. The boundary is defined and undisputed. (U/OU)

1. Land (C)

Conditions for movement are unfavorable in the border areas. Cross-country movement would be difficult because of the extensive areas of rugged highlands, dense forests, wet areas, and wide streams. In winter, movement would be possible locally on frozen water bodies and frozen ground but would be

severely hindered in many places by deep snow. Only a few widely spaced roads and railroads cross the borders. The approaches shown on Figure 10 are the best means of land access to Sweden. Data on the land approaches are given in Figure 12.

2. Sea (C)

Sea approaches are from the North Sea, through the Skagerrak, Kattegat, and The Sound to the west coast and through the Gulf of Bothnia and the Baltic Sea to the east and south coast. Conditions are generally unfavorable for large-scale amphibious operations because of mostly obstructed and channelized approaches, flat nearshore gradients, poor or unusable exits and cross-country movement conditions, and adverse weather conditions during most of the year. Offshore approaches to most of the east and west coasts are partly obstructed by islands, and numerous islets, rocks, and shoals which extend as far as 20 nautical miles offshore. Nearshore approaches are severely encumbered by shoals, islets, rocks, sandbars, and scattered wrecks. These obstructions are also present in the more shallow offshore and nearshore approaches to the southern coast, but they are widely scattered, and approaches to some parts are relatively clear. Sea ice, forming first in the Gulf of Bothnia, may be present along the coast during October through June. In the Baltic Sea, icebreakers would be needed to aid navigation through drift and shelf ice from the end of December to early April. In the Gulf of Bothnia, ships would be stopped or severely hampered by ice for long periods, particularly in the northern part, from about the end of December to early May. During all except very mild winters the head of the Gulf of Bothnia and the narrow north-central part freeze sufficiently to support troop movement, and in some winters the ice is thick enough to support 1 1/2-ton trucks. In addition to the ice, other winter hazards are long periods of darkness and frequent fogs and storms. High sea and swell are most common during autumn and winter, and highest occurrence along parts of the west coast. Nearshore bottom slopes range from gentle to flat; bottom materials are primarily sand, with varying amounts of mud, gravel, and stones; seaweed is found in some places. Surf 4 feet or higher is infrequent throughout the year in most areas but may occur at anytime along unprotected stretches of coast. Tides are negligible, but water-level fluctuations up to 6 feet may be caused by winds, river discharge, and changes in atmospheric pressure, and, on the west coast, there are highly variable currents. The only beaches usable for large-scale amphibious operations are along the southern part of the coast. In general,

FIGURE 12. Land approaches (C)

| APPROACH | ROAD | RAILROAD | OFFROAD DISPERSAL AND CROSS-COUNTRY MOVEMENT |
|--|--|--|---|
| Approach from Kemi, Finland, is across level coastal plain covered by needleleaf evergreen forests and cultivated crops. | Two lanes, bituminous surfaced, in fair condition. | Single track, 5'0" gage; dual gages (4'8 1/2" and 5'0") cross bridge at border permitting Finnish trains to cross into Haparanda and Swedish trains into Tornio for transloading; in good condition. | Forests, lakes, swamps, bogs, rivers, and extensive boulder fields hinder or preclude cross-country movement and offroad dispersal; during winter, however, the rivers and wet areas become frozen and are trafficable. |
| Approach from Narvik, Norway, is in a valley in rugged mountains. Vegetation consists of broadleaf deciduous forests, low shrubs, thickets, and scrub. | None..... | Single track, 4'8 1/2" gage, electrified, in good condition. Many bridges and tunnels constitute potential bottlenecks. | Steep, rugged terrain, boulders, and, during most of winter, deep snow hinder or preclude cross-country movement and offroad dispersal. |
| Approach from Mo, Norway, is across high, rugged mountains. Vegetation is predominantly broadleaf deciduous and needleleaf evergreen forests; at higher elevations near border, some low shrubs, tundra, or bare rock. | One lane, gravel surfaced, generally in fair condition. Numerous winding stretches and narrow bridges potential bottlenecks. Blocked by snow much of time October through May. | None..... | Steep slopes, dense forest, and deep snow in winter, severely restrict or preclude cross-country movement and offroad dispersal. |
| Approach from Trondheim, Norway, is in valley in rugged hills and small area of mountains. Vegetation consists mostly of needleleaf evergreen forests; grass and cultivated crops near Trondheim. | Two lanes, bituminous-treated, in fair condition. | Single track, 4'8 1/2" gage, good condition, electrified. Several bridges and a tunnel constitute potential bottlenecks. | In western part of route, conditions generally fair; however, deep streams, snow in winter, and miry soils during spring thaw are hindrances. In eastern part of route, steep slopes and dense forests restrict or preclude cross-country movement and offroad dispersal. |
| Approach from Kongsvinger, Norway, is predominantly in valley through rolling plains and low hills. Vegetation is chiefly grass and cropland; hills are covered by needleleaf evergreen forests. | One lane, mostly bituminous-treated, some gravel-surfaced sections, in fair to good condition. Two underpasses with low vertical clearances potential bottlenecks. | Single track, 4'8 1/2" gage, electrified, in good condition. | Generally unsuited in areas of dense forest, fair elsewhere. Additional hindrances deep streams, snow in winter, and soft, wet ground in spring. |
| Approach from Fredrikstad, Norway, is across rolling plains and low hills. Vegetation consists chiefly of grass and cultivated crops; needleleaf evergreen forests near border. | One lane, bituminous-treated surface, in fair condition. |do..... | Predominantly unsuited in areas of dense forest; fair elsewhere. Chief obstacles are deep streams, lakes, snow in winter, and soft, wet ground in spring. |

FIGURE 13. Amphibious landing areas (C)

| LOCATION | APPROACH | BEACH | TERRAIN BEHIND BEACH AND EXIT |
|--------------------------|--|--|--|
| East-southeast of Ystad. | Seaward of 5-fathom curve, mostly clear, shoreward, partly obstructed by scattered wrecks, by rocks in eastern part, by shoals in western part, and by shifting sandbars near L.W. line. Nearshore bottom material sand and clay; gradients 1 on 60 to 1 on 130; unsuitable for LST dry-ramp landings; surf 4 ft. or higher infrequent in all months. Tidal range negligible, strong westerly winds lower the water level about 6 ft. | Contains 2 main beaches separated by rocky shore. Beach centered 16 mi. east of Ystad 4 1/2 mi. long; all usable; 25 to 35 yd. wide at L.W. and H.W.; gradient est. 1 on 30 to 1 on 65 L.W. to H.W. and 1 on 10 to 1 on 30 in H.W. zone; material sand. Beach centered 5 mi. east of Ystad 5 mi. long; all usable; 25 to 35 yd. wide at L.W. and H.W.; gradient est. 1 on 30 to 1 on 65 L.W. to H.W. and 1 on 10 to 1 on 30 in H.W. zone; material sand. | Beaches backed by low grass-covered dunes backed by cultivated and partly wooded level plain, cut by streams and interrupted by hillocks. Dunes extend about 900 yd. inland behind eastern part. Exits by cross-country movement or by loose- and hard-surfaced coastal road and single-track, 4' 1/2"-gauge railroad 1 mi. to 5 mi. inland. |
| South of Halmstad. | Seaward of 5-fathom curve, mostly clear but restricted to bay; shoreward, restricted to bay and partly obstructed by shoal patches, mostly in northern part, and by scattered sandbars and rocks near L.W. line. Nearshore bottom material sand with scattered patches of gravel, cobble, and rock in southern part; gradients 1 on 150 to 1 on 200; unusable for LST dry-ramp landings. Surf 4 ft. or higher, infrequent in all months. Tidal range negligible. | Contains 3 main beaches separated by stream mouths and stretch of irregular rocky shore. Beach centered 12 1/2 mi. south of Halmstad 9 1/4 mi. long; nearly all usable; 20 to 80 yd. wide at L.W. and H.W.; gradients 1 on 25 or flatter L.W. to H.W. and in H.W. zone; sand, gravel, and cobble with some rock in southern part. Beach centered 7 mi. south of Halmstad 2 1/4 mi. long; 2 mi. usable; 25 to 80 yd. wide at L.W. and H.W.; gradients 1 on 40 or flatter L.W. to H.W. and in H.W. zone; material sand with scattered patches of gravel. Beach centered 2 mi. southeast of Halmstad about 2 3/4 mi. long; all usable; 25 to 55 yd. wide L.W. and H.W.; gradients est. 1 on 60 or flatter L.W. to H.W. and in H.W. zone; material sand. | Beaches are backed by mostly low, grass- and brush-covered dunes extending about 150 yd. to partly wooded and partly cultivated level plain, cut by streams and interrupted by hillocks. In places, dunes have been leveled and a belt of homes built. Exits by cross-country movement or by tracks, trails, streets, and loose- and hard-surfaced roads to hard-surfaced coastal road 1,000 yd. to 2 1/2 mi. inland. Single-track, 4' 8 1/2"-gauge, electrified railroad 1,000 yd. to 5 mi. inland. |

CONFIDENTIAL

these beaches are composed of sand, are over 1 mile in length, have moderate to mild gradients, and are backed by dunes and level to rolling plains. Exits inland are by streets, hard- and loose-surfaced roads, tracks, trails, and by cross-country movement.

The amphibious landing areas shown on Figures 10 and 9 provide direct access to the South Coastal strategic area and to routes leading to other parts of the country. Data on the amphibious landing areas are presented in Figure 13.

3. Air (U/OU)

Air approaches³ to Sweden from the north and west are across the mountains of Norway, the Norwegian and North Seas, the Kattegat and Skagerrak, and the level to rolling plains of Denmark. Many peaks in Norway are over 5,000 feet in height, the highest is 8,140 feet above sea level and is in south-central Norway about 110 nautical miles west of the Swedish border.

Approaches from the south are over the Baltic Sea and the flat to rolling plains of northern East and West Germany, and Poland. There are no topographic hazards to flying; the maximum elevation is 1,079 feet in northern Poland.

Approaches from the east are over the northern part of the Baltic Sea, the Gulf of Bothnia, and the flat to rolling plains, hills, and low mountains of Finland and the U.S.S.R. Most elevations are less than 1,650 feet; however, there are several peaks between 2,000 and 4,000 feet in height in northern Finland and the U.S.S.R., about 200 nautical miles from the Swedish border.

All approaches are subject to a constant succession of migratory low-pressure centers and their associated

³The discussion zone for air approaches extends approximately 200 nautical miles beyond the borders of the country.

frontal systems throughout the year. These storms are the primary contributing factor to poor weather conditions. Although they may occur in any month of the year, they attain maximum frequency and intensity in the period November through March. These storms are often accompanied by extensive and thick cloud layers in which icing conditions are usually present, especially in winter (December through February); low ceilings and poor visibilities are also prevalent. Moderate to severe turbulence is often present along the frontal zones. As the frequency of storms decreases, the general weather conditions improve throughout all approaches during summer (June through August), making this the most favorable period for flying, especially in the south and east approaches.

Cloudiness is fairly extensive in all approaches throughout the year. It reaches a maximum in November through March, when average cloud amounts range between 65% and 80%; during the remaining months, averages range mostly between 50% and 65%. Thunderstorms are infrequent in all seasons in the approaches over water; they occur more often, however, over land, principally during the period May through September, when they occur on 6 days or less per month. The freezing level in all approaches is near or at the surface in winter, and icing conditions are frequently present in the low and intermediate cloud layers. The likelihood of icing conditions decreases in summer, when the mean height of the freezing level ranges from about 6,000 feet in the north to near 10,000 feet in the south. Upper winds are predominantly westerly throughout the year in all approaches, and average speeds are generally less than 50 knots. During winter, however, wind speeds in the north may occasionally exceed 50 knots above 30,000 feet.

CONFIDENTIAL

17

| | ° | ' | N. | ° | ' | E. |
|---------------------------------|----|----|----|----|---|----|
| Aapua | 66 | 51 | 23 | 32 | | |
| Abisko | 68 | 20 | 18 | 51 | | |
| Ågesta | 59 | 14 | 18 | 05 | | |
| Ålmedal (rr sta) | 57 | 41 | 12 | 00 | | |
| Ålmsundet (channel) | 62 | 24 | 17 | 23 | | |
| Ålvsborg | 57 | 40 | 11 | 52 | | |
| Ålvsby | 60 | 34 | 17 | 27 | | |
| Ålvsbyn (sec. of Göteborg) | 65 | 40 | 21 | 00 | | |
| Ånge | 63 | 27 | 14 | 03 | | |
| Ångelholm | 56 | 15 | 12 | 51 | | |
| Ångermanälven (strm) | 62 | 48 | 17 | 56 | | |
| Årendal (sec. of Göteborg) | 57 | 42 | 11 | 50 | | |
| Årjäng | 59 | 23 | 12 | 08 | | |
| Årsta (sec. of Stockholm) | 59 | 18 | 18 | 03 | | |
| Årstaviken (lake) | 59 | 18 | 18 | 02 | | |
| Årvidsjaur | 65 | 35 | 19 | 10 | | |
| Åstorp | 56 | 08 | 12 | 57 | | |
| Åvesta | 60 | 09 | 16 | 12 | | |
| Baltic Sea (sea) | 56 | 00 | 18 | 00 | | |
| Barsebäck (estate) | 55 | 46 | 12 | 57 | | |
| Bastutrask | 64 | 47 | 20 | 02 | | |
| Båveån (strm) | 58 | 21 | 11 | 55 | | |
| Berga (farm) | 59 | 05 | 18 | 08 | | |
| Billingen (upland) | 58 | 24 | 13 | 45 | | |
| Boden | 65 | 50 | 21 | 42 | | |
| Borås | 57 | 43 | 12 | 55 | | |
| Borlänge | 60 | 29 | 15 | 25 | | |
| Borensberg | 58 | 34 | 15 | 17 | | |
| Bothnia, Gulf of (gulf) | 63 | 00 | 20 | 00 | | |
| Bräcke | 62 | 43 | 15 | 27 | | |
| Bråviken (inlet) | 58 | 38 | 16 | 32 | | |
| Brofjorden (fiord) | 58 | 22 | 11 | 26 | | |
| Brunflo | 63 | 05 | 14 | 19 | | |
| Charlottenberg | 59 | 53 | 12 | 17 | | |
| Copenhagen, Denmark | 55 | 40 | 12 | 35 | | |
| Dalarna (region) | 61 | 01 | 14 | 04 | | |
| Dalarö | 59 | 08 | 18 | 24 | | |
| Dalslands Kanal (canal) | 58 | 51 | 12 | 24 | | |
| Dannarvet (sec. of Borlänge) | 60 | 30 | 15 | 27 | | |
| Enköping | 59 | 38 | 17 | 04 | | |
| Falköping | 58 | 10 | 13 | 31 | | |
| Farsta (sec. of Stockholm) | 59 | 15 | 18 | 05 | | |
| Finnkilpan (isl) | 65 | 29 | 22 | 15 | | |
| Forsmo | 63 | 16 | 17 | 12 | | |
| Forsmark | 60 | 22 | 18 | 09 | | |
| Fredrikstad, Norway | 59 | 13 | 10 | 57 | | |
| Frövi | 59 | 08 | 14 | 52 | | |
| Gällivare | 67 | 08 | 20 | 42 | | |
| Gärda | 57 | 35 | 12 | 06 | | |
| Gävle | 60 | 40 | 17 | 10 | | |
| Gävleån (strm) | 60 | 10 | 17 | 09 | | |
| Gävlebukten (bay) | 60 | 42 | 17 | 20 | | |
| Gerundofjärden (bay) | 65 | 29 | 22 | 13 | | |
| Göta Kanal (canal) | 58 | 50 | 13 | 58 | | |
| Götaån (strm) | 57 | 42 | 11 | 52 | | |
| Göteborg | 57 | 43 | 11 | 58 | | |
| Gotland (isl) | 57 | 30 | 18 | 33 | | |
| Grängesberg | 60 | 05 | 14 | 59 | | |
| Granhamsfjärden (sound) | 59 | 43 | 19 | 09 | | |
| Grimskar (isl) | 56 | 39 | 16 | 22 | | |
| Gripsholm (castle) | 59 | 15 | 17 | 13 | | |
| Gröndal (sec. of Stockholm) | 59 | 19 | 18 | 00 | | |
| Gulf of Bothnia (gulf) | 63 | 00 | 20 | 00 | | |
| Hägernäs | 59 | 27 | 18 | 08 | | |
| Hagfors | 60 | 02 | 13 | 42 | | |
| Halland (region) | 57 | 01 | 12 | 42 | | |
| Hällnäs | 64 | 19 | 19 | 38 | | |
| Hallsberg | 59 | 04 | 15 | 07 | | |
| Halmstad | 56 | 39 | 12 | 50 | | |
| Hälsingborg | 56 | 03 | 12 | 42 | | |
| Haparanda | 65 | 50 | 24 | 10 | | |
| Harlosa | 55 | 43 | 13 | 32 | | |
| Harnosund | 62 | 38 | 17 | 56 | | |
| Hasselholm | 56 | 09 | 13 | 46 | | |
| Hisingen (isl) | 57 | 16 | 11 | 53 | | |
| Hjälmarén (lake) | 59 | 15 | 15 | 15 | | |
| Horby | 55 | 51 | 13 | 39 | | |
| Horsfjärden (bay) | 59 | 04 | 16 | 10 | | |
| Höting | 64 | 07 | 18 | 10 | | |
| Hudiksvall | 61 | 44 | 17 | 07 | | |
| Indalsälven (strm) | 62 | 31 | 17 | 27 | | |
| Jämtland (region) | 63 | 26 | 14 | 04 | | |
| Järna | 59 | 06 | 17 | 34 | | |
| Johannelund (sec. of Linköping) | 58 | 25 | 15 | 37 | | |
| Jönköping | 57 | 47 | 14 | 11 | | |
| Jonseder | 57 | 45 | 12 | 10 | | |
| Jörn | 65 | 04 | 20 | 02 | | |
| Jungfruöfjärden (bay) | 59 | 09 | 27 | 07 | | |
| Kaitum | 67 | 33 | 18 | 38 | | |
| Kalix | 65 | 51 | 23 | 08 | | |
| Kalmar | 56 | 40 | 16 | 22 | | |
| Kalmarsund (sound) | 56 | 40 | 16 | 25 | | |

| | ° | ' | N. | ° | ' | E. |
|--------------------------------------|----|----|----|----|---|----|
| Karesuando | 68 | 27 | 22 | 29 | | |
| Karlsborg | 65 | 48 | 23 | 17 | | |
| Karlshamn | 56 | 10 | 14 | 51 | | |
| Karlskrona | 56 | 10 | 15 | 35 | | |
| Karlstad | 59 | 22 | 13 | 30 | | |
| Karungi | 66 | 03 | 23 | 57 | | |
| Katrineholm | 59 | 00 | 16 | 12 | | |
| Kattegat (strait) | 57 | 00 | 11 | 00 | | |
| Kemi, Finland | 65 | 44 | 24 | 34 | | |
| Kil | 59 | 30 | 13 | 19 | | |
| Kilafors | 61 | 14 | 16 | 34 | | |
| Kimstad | 58 | 32 | 15 | 58 | | |
| Kinda Kanal (canal) | 58 | 17 | 15 | 42 | | |
| Kiruna | 67 | 51 | 20 | 13 | | |
| Klöngrfjärden (bay) | 62 | 29 | 17 | 06 | | |
| Knippholmen (isls) | 57 | 41 | 11 | 49 | | |
| Kongsvinger, Norway | 60 | 12 | 12 | 00 | | |
| Kopparberg | 59 | 52 | 14 | 59 | | |
| Korsnjo, Norway | 58 | 57 | 11 | 39 | | |
| Kristianstad | 56 | 02 | 14 | 08 | | |
| Eristinehamn | 59 | 20 | 14 | 07 | | |
| Krylbo | 60 | 08 | 16 | 13 | | |
| Kubikenborg (sec. of Sundsvall) | 62 | 23 | 17 | 21 | | |
| Kungsbacka | 57 | 29 | 12 | 04 | | |
| Kungsholmen (isl) | 56 | 06 | 15 | 35 | | |
| Kungälv | 59 | 29 | 17 | 45 | | |
| Kvarn (farm) | 58 | 38 | 15 | 18 | | |
| Laholmsbukten (bay) | 56 | 35 | 12 | 50 | | |
| Laisvall | 66 | 08 | 17 | 10 | | |
| Landskrona | 55 | 52 | 12 | 50 | | |
| Landsort | 58 | 45 | 17 | 52 | | |
| Långsele | 63 | 31 | 17 | 49 | | |
| Lappland (region) | 68 | 00 | 25 | 00 | | |
| Laxå | 58 | 59 | 14 | 37 | | |
| Leksands-Noret | 60 | 44 | 14 | 59 | | |
| Leningrad, U.S.S.R. | 59 | 55 | 30 | 15 | | |
| Lidingö | 59 | 22 | 18 | 08 | | |
| Limbhamn | 55 | 35 | 12 | 54 | | |
| Linköping | 58 | 25 | 15 | 37 | | |
| Ljungerån (strm) | 62 | 19 | 17 | 23 | | |
| Lövö | 56 | 59 | 16 | 28 | | |
| Ludvika | 60 | 09 | 15 | 11 | | |
| Luleå | 65 | 34 | 22 | 10 | | |
| Luleålv | 65 | 35 | 22 | 03 | | |
| Lund | 55 | 42 | 13 | 11 | | |
| Luosavaara (mt) | 67 | 52 | 20 | 14 | | |
| Lyckeå | 64 | 36 | 18 | 40 | | |
| Lysekil | 58 | 16 | 11 | 26 | | |
| Malaren (lake) | 59 | 30 | 17 | 12 | | |
| Malmberget | 67 | 10 | 20 | 40 | | |
| Malmö | 55 | 36 | 13 | 09 | | |
| Malmslätt | 58 | 25 | 15 | 30 | | |
| Märsta | 59 | 37 | 17 | 51 | | |
| Marviken (cove) | 60 | 07 | 18 | 49 | | |
| Mellansel | 63 | 26 | 18 | 19 | | |
| Mellerud | 58 | 42 | 12 | 28 | | |
| Midsommarkransen (sec. of Stockholm) | 59 | 18 | 18 | 00 | | |
| Mjölby | 58 | 19 | 15 | 08 | | |
| Mo, Norway | 66 | 19 | 14 | 10 | | |
| Morjarv | 66 | 04 | 22 | 43 | | |
| Motala Ström (strm) | 58 | 38 | 16 | 00 | | |
| Musko (isl) | 59 | 00 | 18 | 06 | | |
| Mysingen (bay) | 59 | 00 | 18 | 15 | | |
| Naantali, Finland | 60 | 27 | 22 | 02 | | |
| Nassjö | 57 | 39 | 14 | 41 | | |
| Narvik, Norway | 68 | 26 | 17 | 25 | | |
| Nasbypark | 59 | 26 | 18 | 06 | | |
| Nissan (strm) | 56 | 40 | 12 | 51 | | |
| Norrköping | 58 | 36 | 16 | 11 | | |
| North Sea (sea) | 56 | 00 | 03 | 00 | | |
| Norwegian Sea (sea) | 70 | 00 | 05 | 00 | | |
| Nyköping | 58 | 45 | 17 | 00 | | |
| Nynashamn | 58 | 54 | 17 | 57 | | |
| Ödeshög | 58 | 14 | 14 | 39 | | |
| Öland (isl) | 56 | 45 | 16 | 38 | | |
| Örebro | 59 | 17 | 15 | 13 | | |
| Örnsköldsvik (rr sta) | 63 | 17 | 18 | 42 | | |
| Oskarshamn | 57 | 16 | 16 | 26 | | |
| Oslo, Norway | 59 | 55 | 10 | 45 | | |
| Östersund | 63 | 11 | 14 | 39 | | |
| Övertorneå | 66 | 23 | 23 | 10 | | |
| Oxelösund | 58 | 40 | 17 | 06 | | |
| Pitea | 65 | 20 | 21 | 30 | | |
| Råå (sec. of Hälsingborg) | 56 | 00 | 12 | 44 | | |
| Råö (farm) | 57 | 24 | 11 | 56 | | |
| Råön (isl) | 58 | 09 | 11 | 24 | | |
| Revingehed | 55 | 43 | 13 | 29 | | |
| Riksgränsen | 68 | 23 | 18 | 06 | | |
| Ringhals (point) | 57 | 15 | 12 | 05 | | |
| Ritsemjokkåtan (resort) | 67 | 43 | 17 | 28 | | |
| Romeleasen (hills) | 55 | 34 | 13 | 33 | | |
| Rönnskär (rr stop) | 64 | 40 | 21 | 16 | | |

| | ° | ' | N. | ° | ' | E. |
|------------------------------------|----|----|----|---|---|----|
| Saffö | 59 | 08 | | | | |
| Saffö Kanal (canal) | 59 | 07 | | | | |
| Saltsjobaden | 59 | 17 | | | | |
| Sassnitz, E. Germany | 54 | 31 | | | | |
| Säve | 57 | 48 | | | | |
| Sävenäs (sec. of Göteborg) | 57 | 43 | | | | |
| Simpvård | 57 | 25 | | | | |
| Skagerrak (strait) | 57 | 45 | | | | |
| Skåne (region) | 55 | 59 | | | | |
| Skalstugan (farms) | 63 | 35 | | | | |
| Skara | 58 | 22 | | | | |
| Skarholmen (sec. of Stockholm) | 59 | 17 | | | | |
| Skellefteå | 64 | 46 | | | | |
| Skövde | 58 | 24 | | | | |
| Södertälje | 59 | 12 | | | | |
| Södertälje Kanal (canal) | 59 | 12 | | | | |
| Solna | 59 | 22 | | | | |
| Sound, The (sound) | 55 | 50 | | | | |
| Stensele | 65 | 05 | | | | |
| Stenungsund | 58 | 05 | | | | |
| Stockholm | 59 | 20 | | | | |
| Storlien (rr sta) | 63 | 19 | | | | |
| Storuman | 65 | 06 | | | | |
| Strängnäs | 59 | 23 | | | | |
| Stråssa | 59 | 45 | | | | |
| Strömmen (bay) | 59 | 19 | | | | |
| Strömstad | 58 | 56 | | | | |
| Studsвик | 58 | 46 | | | | |
| Sundbyberg | 59 | 22 | | | | |
| Sundsvall | 62 | 23 | | | | |
| Sundsvallsbukten (bay) | 62 | 20 | | | | |
| Sundsvallsfjärden (bay) | 62 | 23 | | | | |
| Svappavaara | 67 | 39 | | | | |
| Svartosund (narrows) | 65 | 33 | | | | |
| Taby (sec. of Stockholm) | 59 | 30 | | | | |
| Tanum | 58 | 43 | | | | |
| Tingstad (sec. of Göteborg) | 57 | 44 | | | | |
| Tjvholmssundet (narrows) | 65 | 32 | | | | |
| Tornio, Finland | 65 | 51 | | | | |
| Torsmo | 61 | 12 | | | | |
| Travemünde, W. Germany | 53 | 58 | | | | |
| Trelleborg | 55 | 22 | | | | |
| Trollhätte Kanal (canal) | 57 | 43 | | | | |
| Trollhättan | 58 | 16 | | | | |
| Trondheim, Norway | 63 | 25 | | | | |
| Trosa | 58 | 54 | | | | |
| Uddevalla | 58 | 21 | | | | |
| Ulsundu (sec. of Stockholm) | 59 | 20 | | | | |
| Umeå | 63 | 50 | | | | |
| Umeålv | 63 | 47 | | | | |
| Uppsala | 59 | 52 | | | | |
| Vaddö | 59 | 59 | | | | |
| Vällingby (sec. of Stockholm) | 59 | 22 | | | | |
| Vällinge (farm) | 59 | 16 | | | | |
| Vänern (lake) | 58 | 55 | | | | |
| Vänersborg | 58 | 22 | | | | |
| Vannäs | 63 | 55 | | | | |
| Varberg | 57 | 06 | | | | |
| Varnamo | 57 | 11 | | | | |
| Vasterås | 59 | 37 | | | | |
| Västergötland (region) | 58 | 01 | | | | |
| Västervik | 56 | 15 | | | | |
| Västra Frölunda (sec. of Göteborg) | 57 | 3 | | | | |

| COORDINATES | | | COORDINATES | | | COORDINATES | | |
|---------------------------|-------|-------|--------------------------------------|-------|-------|------------------------------------|-------|-------|
| | ° N. | ° E. | | ° N. | ° E. | | ° N. | ° E. |
| | 66 51 | 23 32 | Karesuando | 68 27 | 22 29 | Saffle | 59 08 | 12 56 |
| | 68 20 | 18 51 | Karlsborg | 65 48 | 23 17 | Saffle Kanal (canal) | 59 07 | 12 55 |
| | 59 14 | 18 05 | Karlshamn | 56 10 | 14 51 | Saltsjobaden | 59 17 | 18 18 |
| dal (rr sta) | 57 41 | 12 00 | Karlskrona | 56 10 | 15 35 | Sassnitz, E. Germany | 54 31 | 13 39 |
| undet (channel) | 62 24 | 17 23 | Karlstad | 59 22 | 13 30 | Save | 57 48 | 11 55 |
| org | 57 40 | 11 52 | Karungi | 66 03 | 23 57 | Savonias (sec. of Gotcborg) | 57 43 | 12 02 |
| arleby | 60 34 | 17 27 | Katrineholm | 59 00 | 16 12 | Simpvarp | 57 25 | 16 40 |
| byn (sec. of G6teborg) | 65 40 | 21 00 | Kattegat (strait) | 57 00 | 11 00 | Skagerrak (strait) | 57 45 | 09 00 |
| holm | 63 27 | 14 03 | Kemi, Finland | 65 44 | 24 34 | Sk6ne (region) | 55 59 | 13 30 |
| manalven (strm) | 62 48 | 17 56 | Kil | 59 30 | 13 19 | Skalstugan (farm) | 63 35 | 12 16 |
| al (sec. of G6teborg) | 57 42 | 11 50 | Kilafors | 61 11 | 16 34 | Skara | 58 22 | 13 25 |
| (sec. of Stockholm) | 59 23 | 12 08 | Kimstad | 58 32 | 15 58 | Skarholmen (sec. of Stockholm) | 59 17 | 17 53 |
| vikjen (lake) | 59 18 | 18 03 | Kinda Kanal (canal) | 58 17 | 15 42 | Skelleftea | 64 46 | 20 57 |
| bjaur | 65 35 | 19 10 | Kiruna | 67 51 | 20 13 | Skovde | 58 24 | 13 50 |
| o | 56 08 | 12 57 | Klingerfjarden (bay) | 62 29 | 17 26 | Sodertalje | 59 12 | 17 37 |
| a | 60 09 | 16 12 | Enippelholmen (isls) | 57 41 | 11 49 | Sodertalje Kanal (canal) | 59 12 | 17 38 |
| Sea (sea) | 56 00 | 18 00 | Kongsvinger, Norway | 60 12 | 12 00 | Solna | 59 22 | 18 01 |
| back (estate) | 55 46 | 12 57 | Kopparberg | 59 52 | 14 59 | Sound, The (sound) | 55 50 | 12 30 |
| trisk | 61 47 | 20 02 | Kornsj6, Norway | 58 57 | 11 39 | Stensele | 65 05 | 17 10 |
| n (strm) | 58 21 | 11 55 | Kristianstad | 56 02 | 14 08 | Stenungsund | 58 05 | 11 49 |
| (farm) | 59 05 | 18 08 | Kristinehamn | 59 20 | 14 07 | Stockholm | 59 20 | 18 03 |
| gen (upland) | 58 24 | 13 45 | Krylbo | 60 08 | 16 13 | Storlien (rr sta) | 63 19 | 12 06 |
| o | 65 50 | 21 42 | Kubikensborg (sec. of Sundsvall) | 62 23 | 17 21 | Storuman | 65 06 | 17 06 |
| o | 57 43 | 12 55 | Kungsbacka | 57 29 | 12 04 | Strangnas | 59 23 | 17 02 |
| ng | 60 29 | 15 25 | Kungsholmen (isl) | 56 06 | 15 35 | Strassn | 59 45 | 15 13 |
| sborg | 58 34 | 15 17 | Kungsholmen | 59 29 | 17 45 | Str6mmen (bay) | 59 19 | 18 05 |
| ie, Gulf of (gulf) | 63 00 | 20 00 | Kvarn (farm) | 58 38 | 15 18 | Str6mstad | 58 46 | 11 10 |
| gen (inlet) | 62 43 | 15 27 | Laholmsbukten (bay) | 56 35 | 12 50 | Studsvik | 58 40 | 17 23 |
| orden (fiord) | 58 38 | 16 32 | Laisvall | 66 08 | 17 10 | Sundbyberg | 59 22 | 17 58 |
| lo | 58 22 | 11 26 | Landskrona | 55 52 | 12 50 | Sundsvall | 62 23 | 17 18 |
| ottenberg | 59 53 | 12 17 | Landsort | 58 45 | 17 52 | Sundsvallsbukten (bay) | 62 20 | 17 35 |
| hagen, Denmark | 55 40 | 12 35 | Langsele | 63 31 | 17 49 | Sundsvallsfjarden (bay) | 62 23 | 17 21 |
| na (region) | 61 01 | 14 04 | Lappland (region) | 68 00 | 25 00 | Svappavaara | 67 39 | 21 01 |
| o | 59 08 | 18 24 | Lax6 | 58 59 | 14 37 | Svartosund (narrows) | 65 33 | 22 13 |
| ands Kanal (canal) | 58 51 | 12 24 | Leksands-Noret | 60 44 | 14 59 | Taby (sec. of Stockholm) | 59 30 | 18 03 |
| arvet (sec. of Borl6ng) | 60 30 | 15 27 | Leningrad, U.S.S.R. | 59 55 | 30 15 | Taarn | 58 43 | 11 20 |
| ping | 59 38 | 17 04 | L'diago | 59 22 | 18 08 | Tingsstad (sec. of G6teborg) | 57 44 | 11 59 |
| ping | 58 10 | 13 31 | Limhamn | 55 35 | 12 54 | Tjvholmssundet (narrows) | 65 32 | 22 11 |
| a (sec. of Stockholm) | 59 15 | 18 05 | Link6ping | 58 25 | 15 37 | Tornio, Finland | 65 51 | 24 08 |
| lippan (isl) | 65 29 | 22 15 | Ljungan (strm) | 62 19 | 17 23 | Torsmo | 61 12 | 14 58 |
| o | 63 16 | 17 12 | L6v6 | 56 59 | 16 28 | Travemunde, W. Germany | 53 58 | 10 52 |
| ark | 60 22 | 18 09 | Ludvika | 60 09 | 15 11 | Trelleborg | 55 22 | 13 10 |
| lkstad, Norway | 59 13 | 10 57 | Lule6 | 65 34 | 22 10 | Trollhatte Kanal (canal) | 57 43 | 11 58 |
| are | 59 08 | 11 52 | Lule6lv | 65 35 | 22 03 | Trollhattan | 58 16 | 12 18 |
| are | 67 08 | 20 42 | Lund | 55 42 | 13 11 | Trondheim, Norway | 63 25 | 10 25 |
| are | 57 35 | 12 06 | Luossavaara (mt) | 67 52 | 20 14 | Trosa | 58 54 | 17 33 |
| are | 60 40 | 17 10 | Lycksele | 64 36 | 18 40 | Uddevalla | 58 21 | 11 55 |
| an (strm) | 60 40 | 17 09 | Lysekil | 58 16 | 11 26 | Ulvunda (sec. of Stockholm) | 59 20 | 17 58 |
| bukten (bay) | 60 42 | 17 20 | Mälaren (lake) | 59 30 | 17 12 | Ume6 | 63 50 | 20 15 |
| and6fjarden (bay) | 65 29 | 22 13 | Malmberget | 67 10 | 20 40 | Ume6lv | 63 47 | 20 16 |
| Kanal (canal) | 58 50 | 13 58 | Malmö | 55 36 | 13 00 | Uppsala | 59 52 | 17 38 |
| lv (strm) | 57 42 | 11 52 | Malmsslatt | 58 25 | 15 30 | Vaddo | 59 59 | 18 49 |
| org | 57 43 | 11 58 | Märsta | 59 37 | 17 51 | Vällingby (sec. of Stockholm) | 59 22 | 17 52 |
| nd (isl) | 57 30 | 18 33 | Marviken (cove) | 60 07 | 18 49 | Vällinge (farm) | 59 16 | 17 42 |
| esberg | 60 05 | 14 59 | Mellansel | 63 26 | 18 19 | Vänern (lake) | 58 55 | 13 30 |
| amnsfjarden (sund) | 59 43 | 19 09 | Mellerud | 58 42 | 12 28 | Vänorsborg | 58 22 | 12 19 |
| är (isl) | 56 39 | 16 22 | Midsommarkransen (sec. of Stockholm) | 59 18 | 18 00 | Vännäs | 63 55 | 19 45 |
| holm (castle) | 59 15 | 17 13 | Mjölby | 58 19 | 15 08 | Varberg | 57 06 | 12 15 |
| al (sec. of Stockholm) | 59 19 | 18 00 | Mö, Norway | 66 19 | 14 10 | Värnamo | 57 11 | 14 02 |
| f Bothnia (gulf) | 63 00 | 20 00 | Morjarv | 66 04 | 22 43 | Västerås | 59 37 | 16 33 |
| näs | 59 27 | 18 08 | Motala Ström (strm) | 58 38 | 16 00 | Västergötland (region) | 58 01 | 13 03 |
| rs | 60 02 | 13 42 | Musko (isl) | 59 00 | 18 06 | Västervik | 56 15 | 14 24 |
| ad (region) | 57 01 | 12 42 | Mysingen (bay) | 59 00 | 18 15 | Västra Frölunda (sec. of G6teborg) | 57 39 | 11 52 |
| s | 64 19 | 19 38 | Naantali, Finland | 60 27 | 22 02 | Växjö | 56 53 | 14 49 |
| erg | 59 04 | 15 07 | Nassjö | 57 39 | 14 41 | Vaxholmsfastning (fort) | 59 21 | 18 21 |
| ad | 56 39 | 12 50 | Narvik, Norway | 68 26 | 17 25 | Vättern (lake) | 58 24 | 14 36 |
| gborg | 56 03 | 12 42 | Näsbypark | 59 26 | 18 06 | Vidsele | 65 51 | 20 31 |
| anda | 65 50 | 24 10 | Nissan (strm) | 56 40 | 12 51 | Vietas | 67 30 | 18 25 |
| a | 55 43 | 13 32 | Norrköping | 58 36 | 16 11 | Vinga (isl) | 57 38 | 11 36 |
| sänd | 62 38 | 17 56 | North Sea (sea) | 56 00 | 03 00 | Ystad | 55 25 | 13 49 |
| holm | 56 09 | 13 46 | Norwegian Sea (sea) | 70 00 | 05 00 | | | |
| en (isl) | 57 16 | 11 53 | Nyköping | 58 45 | 17 00 | | | |
| aren (lake) | 59 15 | 15 45 | Nynäshamn | 58 54 | 17 57 | | | |
| arden (bay) | 59 01 | 16 10 | Ödeshög | 58 14 | 14 39 | | | |
| svall | 61 44 | 17 07 | Öland (isl) | 56 15 | 16 38 | | | |
| lven (strm) | 62 31 | 17 27 | Örebro | 59 17 | 15 13 | | | |
| nd (region) | 63 26 | 14 04 | Örnsköldsvik (rr sta) | 63 17 | 18 42 | | | |
| elund (sec. of Linköping) | 58 25 | 15 37 | Oskarshamn | 57 16 | 16 26 | | | |
| ing | 57 47 | 14 11 | Oslo, Norway | 59 55 | 10 45 | | | |
| ed | 57 45 | 12 10 | Östersund | 63 11 | 14 39 | | | |
| o | 65 04 | 20 02 | Övertornea | 66 23 | 23 40 | | | |
| fjarden (bay) | 59 09 | 27 07 | Oxelösund | 58 40 | 17 06 | | | |
| o | 67 33 | 18 38 | Pitea | 65 20 | 21 30 | | | |
| o | 65 51 | 23 08 | R6a (sec. of Hälsingborg) | 56 00 | 12 44 | | | |
| o | 56 40 | 16 22 | R6a (farm) | 57 24 | 11 56 | | | |
| und (sound) | 56 40 | 16 25 | R6on (isl) | 58 09 | 11 24 | | | |
| | | | Revingehed | 55 43 | 13 29 | | | |
| | | | Riksgrensen | 68 23 | 18 06 | | | |
| | | | Ringhals (point) | 57 15 | 12 05 | | | |
| | | | Ritsemjökkätan (resort) | 67 43 | 17 28 | | | |
| | | | Romeleäsen (hills) | 55 34 | 13 33 | | | |
| | | | Rönnskär (rr stop) | 64 40 | 21 16 | | | |

Selected airfields

| | | |
|---------------------|-------|-------|
| Arlanda | 59 40 | 17 56 |
| Bromma | 59 21 | 17 57 |
| Bulltofta | 55 36 | 13 04 |
| Frosön | 63 12 | 14 30 |
| Halmstad | 56 41 | 12 49 |
| Hultsfred | 57 36 | 15 50 |
| Jonköping | 59 46 | 14 05 |
| Kallax | 65 33 | 22 08 |
| Kalmar | 56 41 | 16 17 |
| Karlstad | 59 22 | 17 28 |
| Kiruna | 67 51 | 20 13 |
| Kungsholmen | 58 51 | 16 15 |
| Örnsköldsvik | 63 25 | 18 59 |
| Ronneby | 56 16 | 15 16 |
| Sandviken | 60 36 | 16 57 |
| Skelleftea | 64 38 | 21 06 |
| Sundsvall Harnosand | 62 32 | 17 27 |
| Torslanda | 57 11 | 14 02 |
| Umea | 63 48 | 20 17 |
| Visby | 57 39 | 18 20 |

3

4

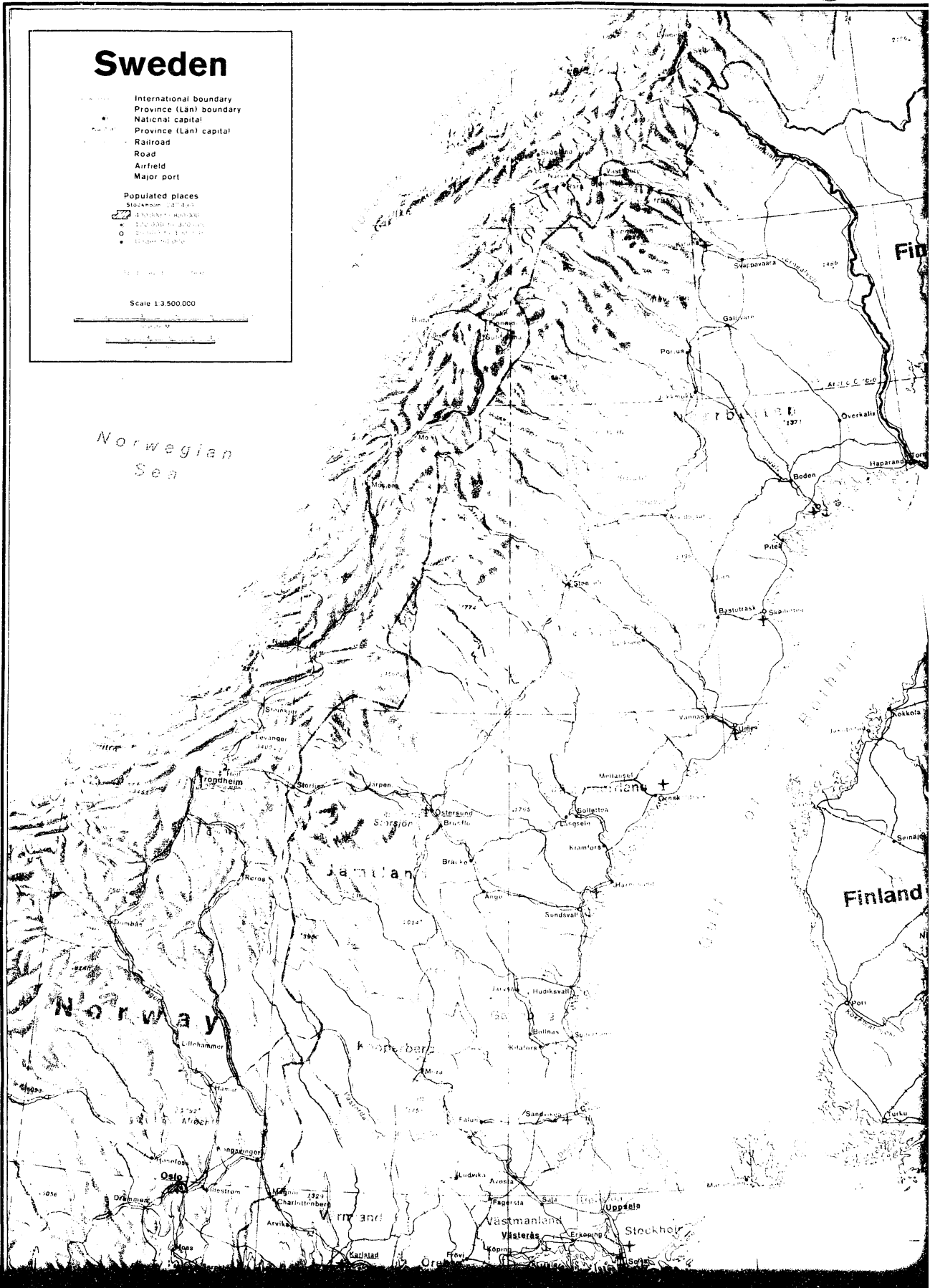
Sweden

- International boundary
- Province (Län) boundary
- National capital
- Province (Län) capital
- Railroad
- Road
- Airfield
- Major port

Populated places

- Stockholm 1,017,000
- 400,000 to 1,000,000
- 100,000 to 400,000
- 20,000 to 100,000
- Under 20,000

Scale 1:3,500,000



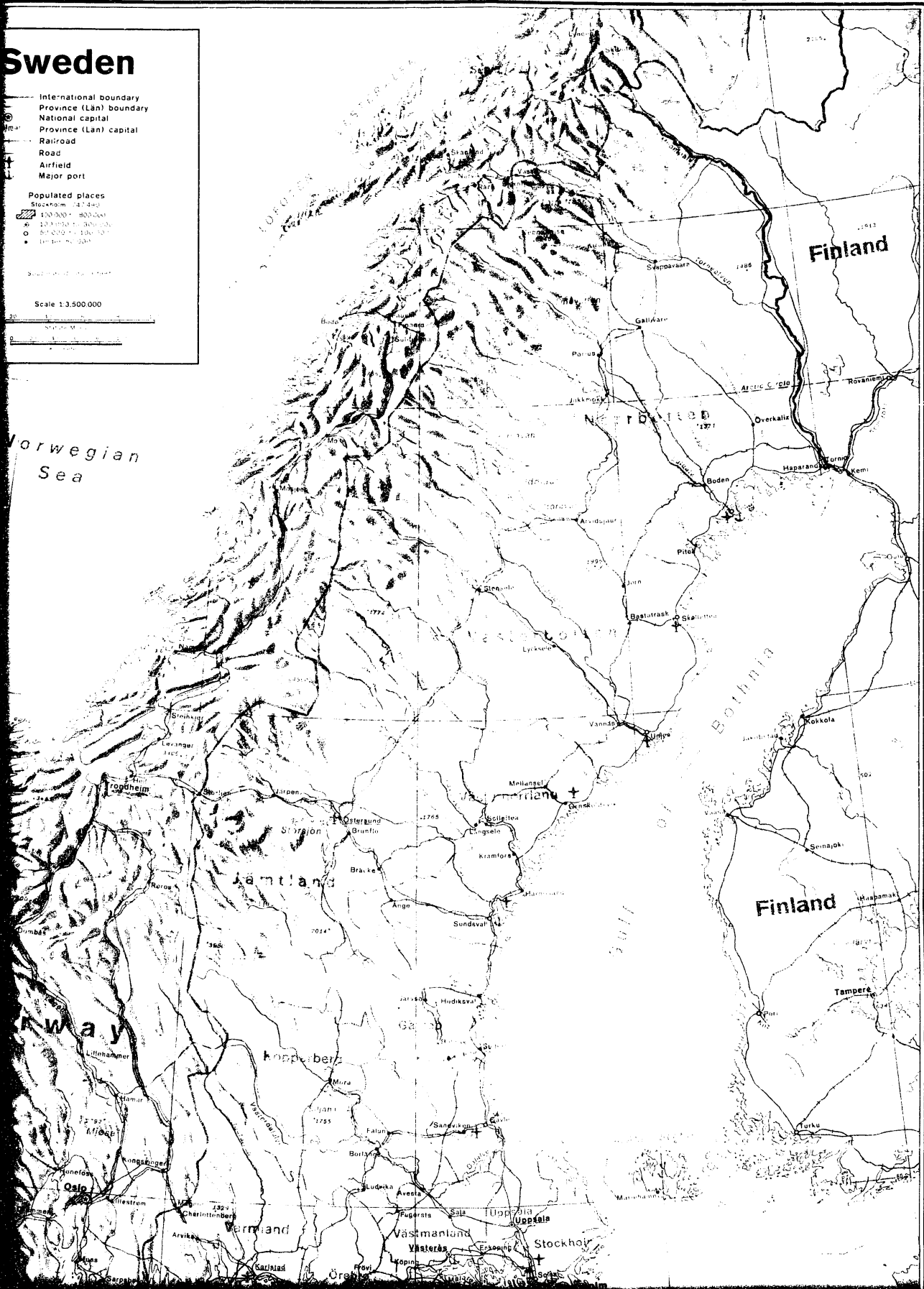
Sweden

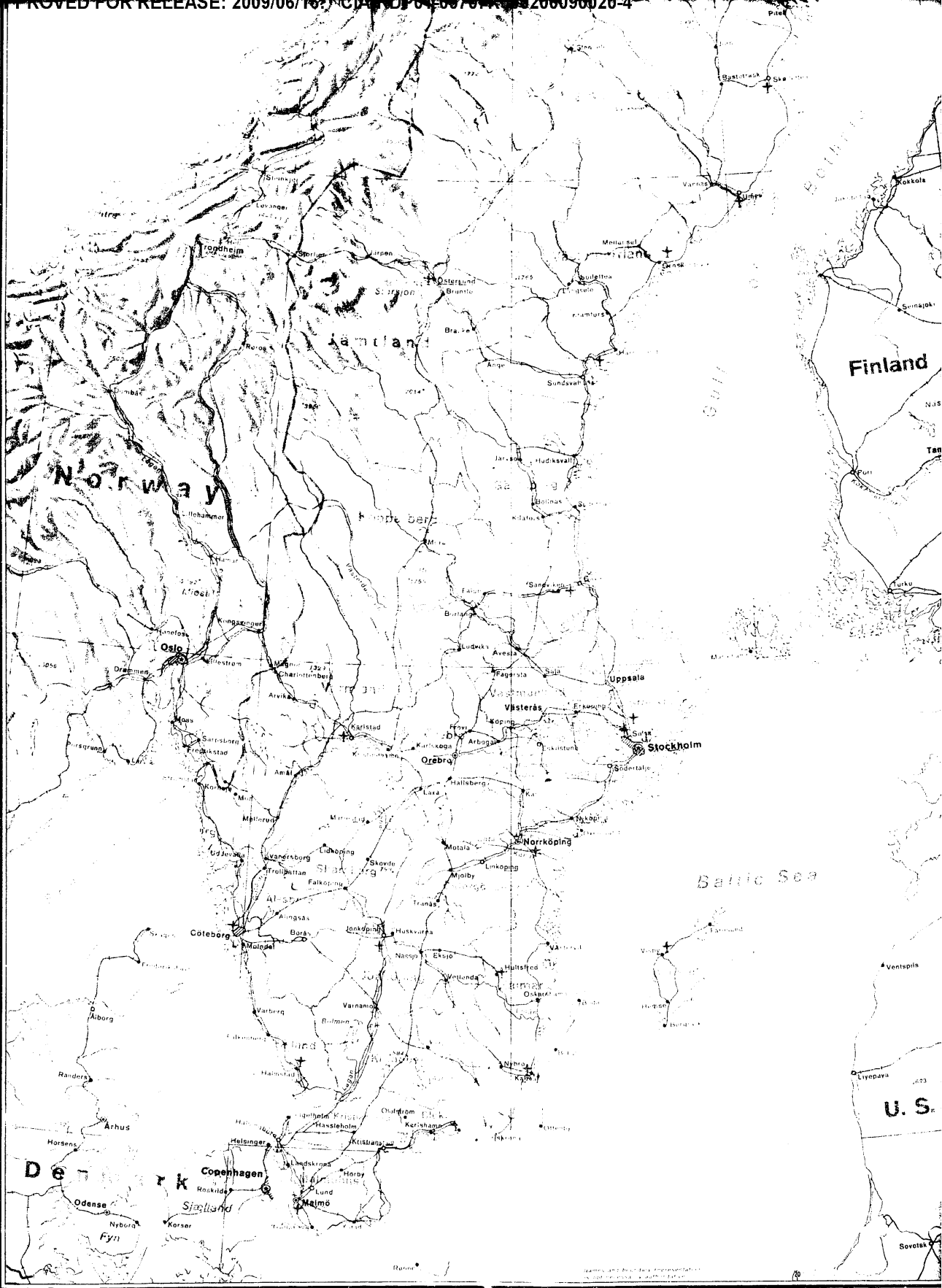
- International boundary
- Province (Län) boundary
- National capital
- Province (Län) capital
- Railroad
- Road
- Airfield
- Major port

- Populated places
- Stockholm 1,474,400
 - 100,000 - 900,000
 - 20,000 - 90,000
 - 5,000 - 19,000
 - Under 5,000

Scale 1:3,500,000

Scale 1:3,500,000



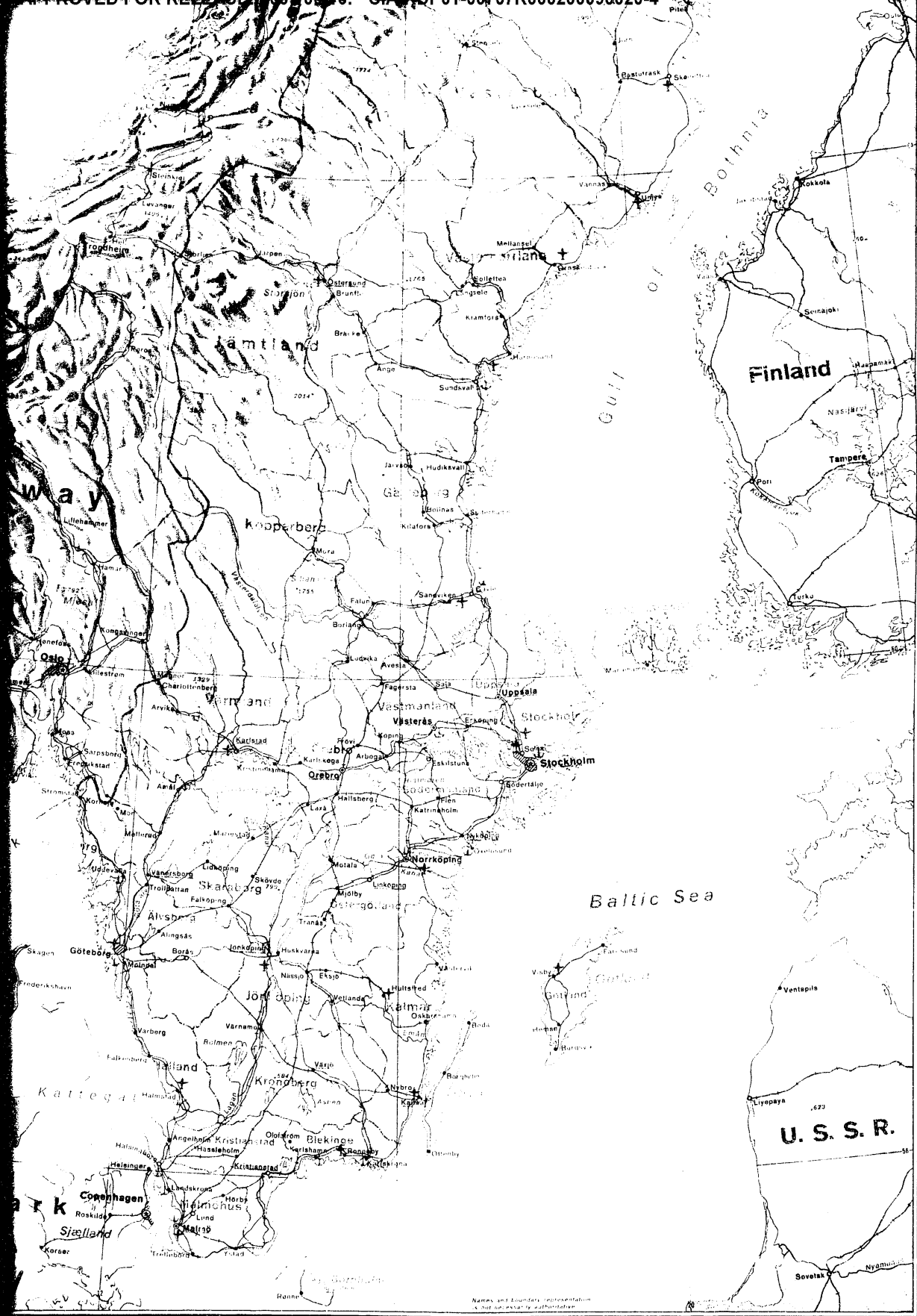


Scale 1:750,000

Central Intelligence Agency

7

Terrain and Transportation



Agency

①

Terrain and Transportation Figure 14

②

CONFIDENTIAL

CONFIDENTIAL