

# *International Boundary Study*

SERIES A

LIMITS IN THE SEAS

*Continental Shelf Boundary*

NORWAY-SOVIET UNION



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INTERNATIONAL BOUNDARY STUDY

Series A

LIMITS IN THE SEAS

No. 17

*CONTINENTAL SHELF BOUNDARY: NORWAY-SOVIET UNION*

The Geographer  
Office of the Geographer  
Bureau of Intelligence and Research

## **CONTINENTAL SHELF BOUNDARY: NORWAY-SOVIET UNION**

The Governments of the Kingdom of Norway and the Union of Soviet Socialist Republics have signed and ratified an Agreement and a Descriptive Protocol relating to the division of the continental shelf in the Varangerfjord. The Agreement, signed on February 15, 1957, established a Joint Soviet-Norwegian Boundary Commission to designate reference points from which the sea frontier between the two countries in the Varangerfjord could be demarcated. Ratifications were exchanged and the Agreement came into force on April 24, 1957. The Descriptive Protocol signed on November 29, 1957, specifies the demarcation of the sea frontier. The latter came into force on March 17, 1958, after the ratifications were exchanged.

The Soviet Union is a party to the 1958 Geneva Convention on the Continental Shelf; Norway is not. However, Norway has adopted an exploitability criterion relative to the continental shelf: (Provisional Act of June 21, 1963, relating to the Exploitation and Exploration of Submarine Natural Resources).

The Agreement of February 15, 1957, is as follows:

### **Article 1**

The sea frontier between Norway and the Union of Soviet Socialist Republics in the Varangerfjord shall follow a straight line from frontier mark No. 415 (spar buoy), which is the terminal point of the frontier drawn in 1947, to the intersection of the outer limits of Norwegian and Soviet territorial waters. The said frontier is indicated on the attached Soviet chart, which is drawn on the scale 1:100,000.

Neither of the Contracting Parties shall extend its territorial waters beyond the straight line extending from the intersection referred to in the first paragraph of this article to the median point of the line between Cape Nemetsky and Cape Kibergnes. The said straight line is indicated on the aforementioned chart by a dotted line.

### **Article 2**

The Contracting Parties shall establish, on a footing of equality, a Joint Soviet-Norwegian Boundary Commission, which shall calculate the geographical co-ordinates of the point of the intersection of the outer limits of the territorial waters and of the median point of the line between Cape Nemetsky and Cape Kibergnes, which are referred to in article 1, shall set up reference marks whereby the location of the Norwegian-Soviet sea frontier in the Varangerfjord can be determined, and shall prepare the necessary documents.

The Joint Commission shall begin its work not later than May 1957 and shall endeavour to complete it before the end of the same year.

All expenses incurred in connexion with the said work shall be equally apportioned between the Contracting Parties.

### Article 3

This Agreement shall be ratified and shall enter into force on the date of the exchange of the instruments of ratification.

The instrument of ratification shall be exchanged at Moscow as soon as possible.

DONE at Oslo on 15 February 1957 in two copies in the Norwegian and Russian languages, both texts being equally authentic.

By authorization of the Royal Norwegian Government: PEDER HOLT

By authorization of the Government of the Union of Soviet Socialist Republics: G. I. TUNKIN

The Descriptive Protocol of November 29, 1957, set forth the following principles:

The Joint Soviet-Norwegian Commission for the Demarcation of the Sea Frontier between the USSR and Norway hereby declares that, in conformity with the Agreement of 15 February 1957 between the Royal Norwegian Government and the Government of the Union of Soviet Socialist Republics concerning the sea frontier between Norway and the USSR in the Varangerfjord, it has calculated the geographical and rectangular co-ordinates of the point of intersection of the outer limits of the Norwegian and Soviet territorial waters and of the median point of the line between Cape Nemetsky and Cape Kibergnes and has also set up reference marks indicating the location of the Norwegian-Soviet sea frontier.

The initial point of the sea frontier between Norway and the USSR in the Varangerfjord is frontier mark No. 415 (spar buoy), which is also the terminal point of the Norwegian-Soviet frontier demarcated in 1947. The geographical and rectangular co-ordinates of frontier mark No. 415. (spar buoy) according to the documents for the demarcation of the State frontier between Norway and the USSR signed at Moscow on December 1947 are as follows:

Latitude	=	69° 47' 46.14"
Longitude	=	30° 49' 09.85"
x	=	7,746,912.1
y	=	6,415,943.7

From frontier mark No. 415 (spar buoy), the sea frontier between Norway and the USSR runs in a straight line in a north-north-easterly direction to the terminal point of this frontier, which is the point of intersection between the outer limit of the Norwegian territorial waters,

situated four nautical miles to the east of and parallel with a straight line between Cape Kibergnes and frontier mark No. 415 (spar buoy), and the outer limit of the Soviet territorial waters, situated twelve nautical miles from the northern extremity of the unnamed cape on the Soviet coast east of the frontier river Grense Jakobselv (Vorema).

The geographical and rectangular co-ordinates of the terminal point of the sea frontier, having been calculated analytically, are as follows:

Latitude	=	69° 58' 50.22"
Longitude	=	31° 06' 23.11"
x	=	7,767,110.9
y	=	6,427,642.7

The bearing angle of the Norwegian-Soviet sea frontier from frontier mark No. 415 (spar buoy) to the point of intersection of the outer limits of the Norwegian and the Soviet territorial waters in the Varangerfjord (the terminal point of the sea frontier) is 30° 04.7' or 33 g. 4199.

The length of the sea frontier is 12.6 nautical miles.

The co-ordinates of the terminal point of the sea frontier were calculated on the basis of the co-ordinates of frontier mark No. 415 (spar buoy), as determined in 1947, and of the co-ordinates of Cape Kibergnes and of the unnamed Soviet cape, as determined by the Joint Commission in 1957.

The geographical and rectangular co-ordinates of Cape Kibergnes are as follows:

Latitude	=	70° 17' 17.79"
Longitude	=	31° 03' 51.00"
x	=	7,801,466.0
y	=	6,427,119.0

The geographical and rectangular co-ordinates of unnamed Soviet cape are as follows:

Latitude	=	69° 47' 07.25"
Longitude	=	30° 59' 29.92"
x	=	7,745,479.8
y	=	6,422,541.3

In the demarcation of the Norwegian-Soviet sea frontier in the Varangerfjord in 1957, the Joint Soviet-Norwegian Commission also calculated the co-ordinates of the median point of the line between Cape Nemetsky and Cape Kibergnes. The co-ordinates of this point are as follows:

Latitude	=	70° 07' 19.98"
Longitude	=	31° 30' 27.29"
x	=	7,782,476.8
y	=	6,443,355.5

The co-ordinates of this point were calculated on the basis of the above-mentioned co-ordinates of Cape Kibergnes and the following co-ordinates of Cape Nemetsky.

Latitude	=	69° 57' 18.28"
Longitude	=	31° 56' 38.11"
x	=	7,763,488.5
y	=	6,459,592.0

All the geographical and rectangular co-ordinates calculated by the Joint Commission and referred to in this Descriptive Protocol are given in the 1932 Pulkova System in the sixth six-degree zone having as its axis the meridian thirty-three degrees east of Greenwich. If converted to other systems, these co-ordinates will differ from the figures given here. These co-ordinates were calculated on the same geodetic basis as was used for the 1947 demarcation. The geographical co-ordinates are given in north latitude and in longitude east of Greenwich. The terminal point of the sea frontier and the median point of the line between Cape Nemetsky and Cape Kibergnes have been calculated with a margin of error of ten metres. With regard to the calculation of the other points the co-ordinates of which are given in this Protocol, the degree of accuracy corresponds to that of the geodetic network on which the calculation is based.

The annexes to this Descriptive Protocol are as follows:

- (1) Norwegian and Soviet charts on the scale of 1:100,000 showing the sea frontier between Norway and the USSR.
- (2) Protocol relating to the reference marks, together with a sketch map.
- (3) Sketches of the reference marks.
- (4) Photographs of the reference marks.
- (5) Topographical map on the scale 1:10,000 of the area in which the reference marks are situated.
- (6) Description of the beacon apparatus, with a diagram of the light-sectors of the reference marks on the reverse side.
- (7) Instructions for the servicing and maintenance of the reference marks.

This Descriptive Protocol together with all the annexes thereto shall require the approval of

the Royal Norwegian Government and the Government of the Union of Soviet Socialist Republics and shall enter into force on the date on which the notices of such approval are exchanged.

DONE at Moscow on 29 November 1957 in two copies in the Norwegian and Russian languages, both texts being equally authentic.

### **ANALYSIS**

The continental shelf boundary (CSB) consists of three terminal or turning points. The CSB begins at frontier marker No. 415 (spar buoy) and extends in a northeasterly direction for 24.35 nautical miles to its terminus at the midpoint of the Cape Kibergnes-Cape Nemetsky Line. Except in the vicinity of marker No. 415, the depths along the CSB are all over 100 fathoms, with the greatest depth being 156 fathoms.

The Norwegian portion of the shelf outside of the Norwegian Straight Baseline is all over 100 fathoms in depth except for small areas in the vicinity of marker No. 415 and Cape Kibergnes (Kibergneset). The greatest depth of this part of the Norwegian shelf is 186 fathoms.

The Norwegian Straight Baseline, which extends for a distance of 30 nautical miles from Cape Kibergnes of marker No. 415, encloses the Norwegian internal waters portion of the Varangerfjord. As can be seen from the accompanying map, most of the Varangerfjord is over 100 fathoms in depth.

The Soviet part of the shelf is about equally divided between areas that are over 100 fathoms and those areas that are less than 100 fathoms. The greatest depth of the Soviet shelf is 165 fathoms.

Frontier marker No. 415, which forms the terminus of the Norway-Soviet Union international boundary, as well as the beginning of the CSB, was demarcated according to the Final Protocol of the Mixed Soviet-Norwegian Commission, signed at Moscow on December 18, 1947, and entered into force on May 23, 1949. Marker No. 415 is located 0.5 nautical miles from the coast and has the following coordinates: 69° 47' 46.14" North Latitude, and 30° 49' 09.85" East Longitude. The water depth at the marker is 10 fathoms.

The CSB extends northeast of marker No. 415 for a distance of 12.6 nautical miles. For this distance it coincides with the sea frontier between the two countries. The sea frontier is the seaward extension into the territorial sea of the international boundary between the two countries: the point of intersection of the Norwegian 4-mile and Soviet 12-mile territorial seas marks the terminus of the sea frontier. The coordinates of the sea frontier terminal point are: 69° 58' 50.22" N. Latitude and 31° 06' 23.11" E. Longitude. The location of the sea frontier terminus is the point of intersection between the 4-nautical mile Norwegian territorial sea, as measured from the Norwegian Straight Baseline, and the Soviet territorial sea of 12 nautical miles, as measured from an unnamed cape (see map).

The water depth at this terminal point is 135 fathoms.

To complete the division of the continental shelf of the Varangerfjord, the two Governments agreed to extend the CSB from the terminal point of the sea frontier between the two countries, to the median point of the geographical closing line of the Varangerfjord, the Cape Kibergnes-Cape Nemetsky Line. The distance from the sea frontier terminus to this median point is 11.75 nautical miles. The coordinates of the median point at 70° 07' 19.98" N. Latitude and 31° 30' 27.29" E. Longitude. The water depth at the median point is 130 fathoms.

The Cape Kibergnes-Cape Nemetsky Line is 27 nautical miles in length. The median point is 13.5 nautical miles from the two capes, but because of the scale distortion of the map projection, the median point does not appear to be the actual midpoint of the Line.

### **SUMMARY**

The Norway-Soviet Union CSB is an example of a boundary which was demarcated through the selective utilization of the equidistance principle. The two terminal points of the CSB are median points: frontier marker No. 415 in the territorial sea, and the seaward midpoint of the Cape Kibergnes-Cape Nemetsky Line. However, the line connecting the two termini was not drawn to equally divide the water area.

At this time, no provision has been made between the two countries to extend their shelf claims farther out into the Barents Sea.

The international boundary and the sea frontier between Norway and the Soviet Union are discussed in the following publication: U.S. Department of State, Office of the Geographer. Norway-U.S.S.R. Boundary, International Boundary Study No. 24, of December 23, 1963.



30' 40' 50' 60' 70' 80' 90' 100'

BOUNDARY REPRESENTATION IS NOT NECESSARILY AUTHORITY

NORWAY

Norway-Soviet Union Continental Shelf Boundary

BARENTS SEA

Cape Kibergnes-Cape Nemetskiy Line

Median Point  
70°07'19.98"N.  
31°30'27.29"E.

VARANGERFJORDEN

Terminus of Sea Frontier  
69°58'50.22"N.  
31°06'23.11"E.

69°47'46.14"N.  
30°49'09.85"E.

Unnamed cape cited in treaty  
69°47'07.25"N.  
30°59'29.92"E.

NORWAY

SOVIET UNION

POLUOSTROV

SREDNIY

U S S R

CAUTION  
Certain light sectors are not shown on this chart; details of these, also of the annual period of exhibition of certain lights, will be found in the H.O. List of Lights.  
Numerous lights, buoys and beacons in the inner waters are not shown on this scale chart.

From H.O. 5075, 1st Edition, March 1954; Revised 4/29/68

Source of Data: Office of the Geographer, Department of State

Continued on Chart 5076

77900 3-70 80' 40' 50' 60' 70' 80' 90' 100' 30' 40' 50' 60' 70' 80' 90' 100' 30' 40' 50' 60' 70' 80' 90' 100'