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25 FEB. 1971

Ödsmåti Kville sn, Bohuslän

Hällristning
Fiskare från
bronsåldern

Rock carving
Bronze age
fishermen



MEDDELANDE från
HAVSFISKELABORATORIET • LYSEKIL

nr
99

Hydrografiska avdelningen, Göteborg

Storage of Oceanographic Observations at
Light-vessels and Coastal Stations in the
Baltic and the Transition Area.

by
Artur Svansson

January 1971

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This is a short compilation of all the oceanographical observations at light-vessels and coastal stations which were and are still being carried out in the Baltic and its transition to the sea. The Tables 1 - 10 present

- 1) The name of the light-vessel or coastal station. Only Finnish coastal stations and Bornö (Sweden) have been included. (Danish station e.g. from which only surface observations are reported are therefore excluded).
- 2) Observing period. For Swedish and Finnish stations the periods are given in years only. For Danish stations further data are presented but still not the periods when the light-vessels were in harbor due to ice.
- 3) The national punch cards or mag. tape and WDC-A mag. tape. While most results are published, they are usually punched or put on mag. tape only in part. WDC-A have some data in their files, information of which appears in the last column. A copy of the mag. tapes with data from our region has very kindly been sent to the Fishery Board of Sweden.

The maps presented as Fig:s 1 - 5 shows positions of nearly all the stations of the tables. (The maps include some information irrelevant to this paper, e.g. sections for water level computations, and water level stations.)

A few references to publications presenting the mean values are given below. The Danish publication of 1933 contains data for the period between approximately 1903 and 1930, while the mean values for the period 1931 - 1960 can be found in recent ordinary publications.

Acknowledgement.

The information in this paper was kindly checked by D. Kohnke, Deutsches Ozeanographisches Datenzentrum, Hamburg and H. Thomsen, Meteorological Institute, Copenhagen.

References.

- Anon., 1933: Mean values of observations from Danish light-vessels.
Special print of the Nautical - Meteorological Annual 1932.
- Granquist, G., 1938: Zur Kenntnis der Temperatur und des Salzgehaltes des
Baltischen Meeres an den Küsten Finnlands.
Havsforskningsinstitutet, skrift n:o 122.
- Koczy, F.F., 1955: Monthly average values of hydrographical observations on
Swedish lightships 1923 - 1952.

Legends to the Maps.

- ⊕ Lightship
○ Coastal station
+ Open sea station
FB = Femarn Belt
R = River
● Water level station

Table 1.

Danish Light-vessels

Published by Det Danske Meteorologiske Institut, Charlottenlund,

1897 - 1898: Observations Météorologiques - Nautiques

1899 - 1961: Nautical - Meteorological Annual

1962 - : Oceanographical observations from Danish Light-vessels and coastal stations (551.46. 062. 5/8)

| Station | Observing Period | National Punchcards or Mag. tape | WDC-A Mag. tape |
|---|--|-------------------------------------|--------------------|
| Skagens Rev | 1897 - May 1940, Sept. 1945 - | 1931 - 1960 1962 - | |
| Östre Flak | Aug. 1908 - May 1940, Aug. 1942 - Oct. 1942 | | |
| Ålborg Bugt | May 1943 - Nov. 1943, Sept. 1945 - | 1931 - 1960 1962 - | |
| Laesö - Trindel | 1897 - May 1940, Aug. 1942 - April 1943 | | |
| Laesö - Trindel (Position slightly changed) | April 1943 - April 1945 | 1931 - 1960 | |
| Laesö Nord | Sept. 1945 - | | 1962 - |

Table 2.

Danish Light-vessels

| Station | Observing Period | National Punchcards or Mag. tape | WDC-A Mag. tape |
|-------------------|---|-------------------------------------|--------------------|
| Anholt - Knob | 1897 - April 1945 | 1931 - 1960 | |
| Anholt Nord | Aug. 1945 - | 1962 - | |
| Schultz's - Grund | 1897 - Sept. 1944 | 1931 - 1960 | |
| Kattegat SW | Sept. 1945 - | 1962 - | |
| Lappegrund | 1897 - June 1969 | 1931 - 1960 1962 - 1969 | |
| Gedser Rev | 1897 - 1915, 1920 - Oct. 1939, Sept. 1945 - | 1931 - 1960 1962 - | |
| Halskov Rev | July 1921 - April 1945, July 1946 - | 1931 - 1960 1962 - | |
| Kattegat S | March 1966 - | 1966 - | |

Table 3.

Danish Light-vessels

| Station | Observing Period | National Punchcards or Mag. tape | WDC-A Mag. tape |
|---|---|-------------------------------------|--------------------|
| Laesø Rende | 1897 - May 1940, July 1942 - Oct. 1942 | 1931 -1960 1962 -1965 | |
| Laesø Rende (Position slightly changed) | May 1943 - 1965 | | |
| Drogden | 1897 - June 1937 | 1931 - 1960 | |
| Drogden Lighthouse | June 1937 - Dec. 1944, May 1945 - | 1962 - | |
| Kobbergrund | 1897 - May 1908 | | |
| Langelandsbaelt | Nov. 1940 - Dec. 1942 | | |
| Storebaelt | Nov. 1940 - Dec. 1944 | | |
| Samsø Baelt | Nov. 1940 - Dec. 1942 | | |

Table 4.

Estonian Light-vessels

Published by Tartu Ulikooli Veekogude Uurimise Komisjoni, Väljanne n:o 12, Dorpat 1930.

| Station | Observing Period | National Punchcards or Mag. tape | WDC-A Mag. tape |
|---------|------------------|-------------------------------------|--------------------|
|---------|------------------|-------------------------------------|--------------------|

| | | | |
|------------|------------------|--|--|
| Revalstein | July 1923 - 1928 | | |
|------------|------------------|--|--|

| | | | |
|--------------|------------------|--|--|
| Nekmanngrund | July 1923 - 1928 | | |
|--------------|------------------|--|--|

Table 5.

Finnish Light-vessels

Published in - 1913: Finl. Hydrogr. - Biol. Untersuchungen.
 1914 - : Havsforskningsinstitutet, Helsingfors (Skrifter).

| Station | Observing Period | National Punchcards or Mag. tape | WDC-A Mag. tape |
|------------------------|--|-------------------------------------|--------------------|
| Kemi (Plevna) | 1900-1905, 1908-1914, 1919- 1958, 1960-1964 | | 1928-1940 |
| Nahkiainen | 1900-1956 | | 1928-1940 |
| Snipan | 1903-1914, 1919-1960 | | 1928-1940 |
| Storkallegrund | 1900-1914, 1921-1956 | | 1928-1940 |
| Rauma (Relandersgrund) | 1900-1914, 1919-1953 | | 1928-1940 |
| Storbrotten | 1908-1914, 1921-1939, 1948-1958 | | 1928-1939 |
| Helsinki (Äransgrund) | 1900-1914, 1919-1941, 1946-1959 | | 1928-1940 |
| Kalbadgrund | 1921-1941, 1945-1953 | | 1928-1940 |
| Taipaleenuoto (Ladoga) | 1908-1916, 1922-1938 | | 1928-1938 |
| Helsingkallan | 1900-1914, 1919-1932 | | 1928-1932 |
| Werkkomatala | 1900-1916, 1921-1922, 1924-1931 | | 1928-1931 |

Table 6.

Finnish Coastal Stations

Published by Havsforskningsinstitutet, Helsingfors (Skrifter).

| Station | Observing Period | National Punchcards or Mag. tape | WDC-A Mag. tape |
|--------------------------|----------------------------|-------------------------------------|--------------------|
| Marjaniemi | 1920-1950 | | 1929-1940 |
| Ulkokalla | 1914-1943, 1945-1961 | | 1929-1940 |
| Tankar | 1919-1961 | | 1929-1940 |
| Valsörarna (Valessaaret) | 1919-1961 | | 1929-1940 |
| Norrskär | 1919-1961 | | 1929-1940 |
| Sälgrund | 1919-1943, 1946-1948 | | 1929-1940 |
| Säbskär (Säppi) | 1914, 1919-1961 | | 1929-1940 |
| Enskär (Isokari) | 1919-1952, 1954 | | 1929-1940 |
| Märket | 1914, 1919-1940, 1942-1961 | | 1929-1940 |
| Lågsjär | 1921-1961 | | 1929-1940 |
| Utö | 1914-1961 | | 1929-1940 |
| Jungfruskär | 1920-1961 | | 1929-1940 |
| Lohm | 1920-1961 | | 1929-1940 |
| Bengtsskär | 1920-1941, 1943-1961 | | 1929-1940 |
| Russarö | 1914-1939, 1942-1961 | | 1929-1939 |
| Tvärminne | 1926-1940, 1942-1961 | | 1929-1940 |
| Kallbådan (Porkkala) | 1914-1944 | | 1929-1940 |

Table 7.

Finnish Coastal Stations

| Station | Observing Period | National Punchcards or Mag. tape | WDC-A Mag. tape |
|------------------------|----------------------------|-------------------------------------|--------------------|
| Gråhara (Hermaja) | 1914-1961 | | 1929-1940 |
| Helsingfors (Helsinki) | 1914-1952 | | 1928-1940 |
| Söderskär | 1914-1961 | | 1928-1940 |
| Aspö (Haapasaari) | 1920-1947 | | 1929-1940 |
| Hogland (Suursaari) | 1914-1916, 1919-1939, 1944 | | 1930-1939 |
| Sommarö (Someri) | 1920-1939 | | 1928-1939 |
| Stamö (Tammio) | 1920-1961 | | 1928-1940 |
| Martinsaari | 1920-1939 | | 1928-1939 |
| Virtaniemi | 1932-1939 | | 1932-1939 |
| Styrsudd (Selvästö) | 1920-1939 | | 1928-1939 |
| Järsö | 1920-1921 | | |
| Jusarö | 1919-1926 | | |
| Rödhäll | 1920-1922 | | |
| Torsö | 1920 | | |
| Kökar | 1951-1961 | | |
| Saggö | 1955-1961 | | |

Table 8.

German Light-vessels

Published by 1924 - 1942: Deutsche Seewarte, Hamburg (Meereskundliche Beobachtungen auf deutschen Feuerschiffen der Nord- und Ostsee);

1943 - 1947: Unpublished

1948 - : Deutsches Hydrographisches Institut, Hamburg (Meereskundliche Beobachtungen und Ergebnisse: Beobachtungen auf den deutschen Feuerschiffen der Nord- und Ostsee).

| Station | Observing Period | National Punchcards or Mag. tape | WDC-A Mag. tape |
|--------------|-------------------------|---|-------------------------------|
| Adlergrund | 1924 - 1939 | Observations will be on Mag. tape in Summer 1971 | Data in WDC-A in late 1971 |
| Fehmarn Belt | 1924 - 1942 | | |
| | Aug. 1943 - Nov. 1944 | | |
| | Febr. 1945 - Sept. 1945 | " | " |
| | May 1947 - 1970 | | |
| Flensburg | 1936 - Aug. 1943 | | |
| | March 1944 - Dec. 1945 | " | " |
| | April 1947 - 1963 | | |
| Kiel | 1936 - 1943 | | |
| | Febr. 1944 - March 1945 | " | " |
| | April 1947 - July 1967 | | |

Table 9.

Swedish Light-vessels

Published by 1880 - 1913: Svenska hydrografisk- biologiska kommissionen (Fyrskepsunder-
sökningen 1923, monthly means of temperature only; monthly means of
salinities will be published in 1971).

1923 - 1947: Svenska hydrografisk- biologiska kommissionen (Fyrskepsundersökningen)

1948 - 1969: Fishery Board of Sweden, Report, Series Hydrography.

(Hydrographical observations on Swedish lightships and (from 1964) fjord stations)

| Station | Observing Period | National Punchcards or Mag. tape | WDC-A Mag. tape |
|--------------|--|-------------------------------------|---|
| Dynekil | 1940 - 1945 | | 1940 - 1945 |
| Falsterborev | 1880 - 1914, 1923 - 1939, 1949 - | 1960 - | 1935, 1938 - 1939, 1951, 1956 - 1957 |
| Finngrundet | 1880 - 1918, 1923 - 1942, 1945 - 1969 | 1960 - 1969 | 1935, 1938 - 1942, 1945 - 1949, 1951, 1956 - 1957 |
| Fladen | 1893 - 1914, 1923 - 1939, 1947 - 1969 | 1960 - 1969 | 1935, 1938 - 1939, 1947 - 1949, 1951, 1956 - 1957 |
| Grisbådarne | 1923 - 1929 | | |

Table 10.

Swedish Light-vessels

| Station | Observing Period | National Punchcards or Mag. tape | WDC-A Mag. tape |
|---------------|---------------------------|-------------------------------------|---------------------------------|
| Grundkallen | 1880 - 1917, 1923 - 1939, | 1960 | 1935, 1938 - 1939, 1946 - 1949, |
| | 1946 - 1960 | | 1951, 1956 - 1957 |
| Hävringe | 1951 - 1967 | 1960 - 1967 | 1951, 1956 - 1957 |
| Oskarsgrundet | 1881 - 1914 | 1960 - 1961 | 1935, 1938 - 1939, 1949, |
| | 1923 - 1939, 1949 - 1961 | | |
| Svenska Björn | 1880 - 1915, 1923 - 1939, | 1960 - 1968 | 1935, 1938 - 1939, 1946 - 1949, |
| | 1946 - 1968 | | 1956 - 1957 |
| Svinbådan | 1880 - 1914, 1923 - 1940, | 1960 | 1935, 1938 - 1940, 1951, |
| | 1949 - 1960 | | 1956 - 1957 |
| Sydostbrotten | 1880 - 1916, 1923 - 1963 | 1960 - 1963 | 1935, 1938 - 1949, 1951, |
| | | | 1956 - 1957 |
| Vinga | 1930 - 1939, 1946 - 1965 | 1960 - 1965 | 1935, 1938 - 1939, 1946 - 1949, |
| | | | 1951, 1956 - 1957 |
| Ölandsrev | 1923 - 1941, 1946 - 1951 | | 1935, 1938 - 1941, 1946 - 1949, |
| | | | 1951 |

Table 11.

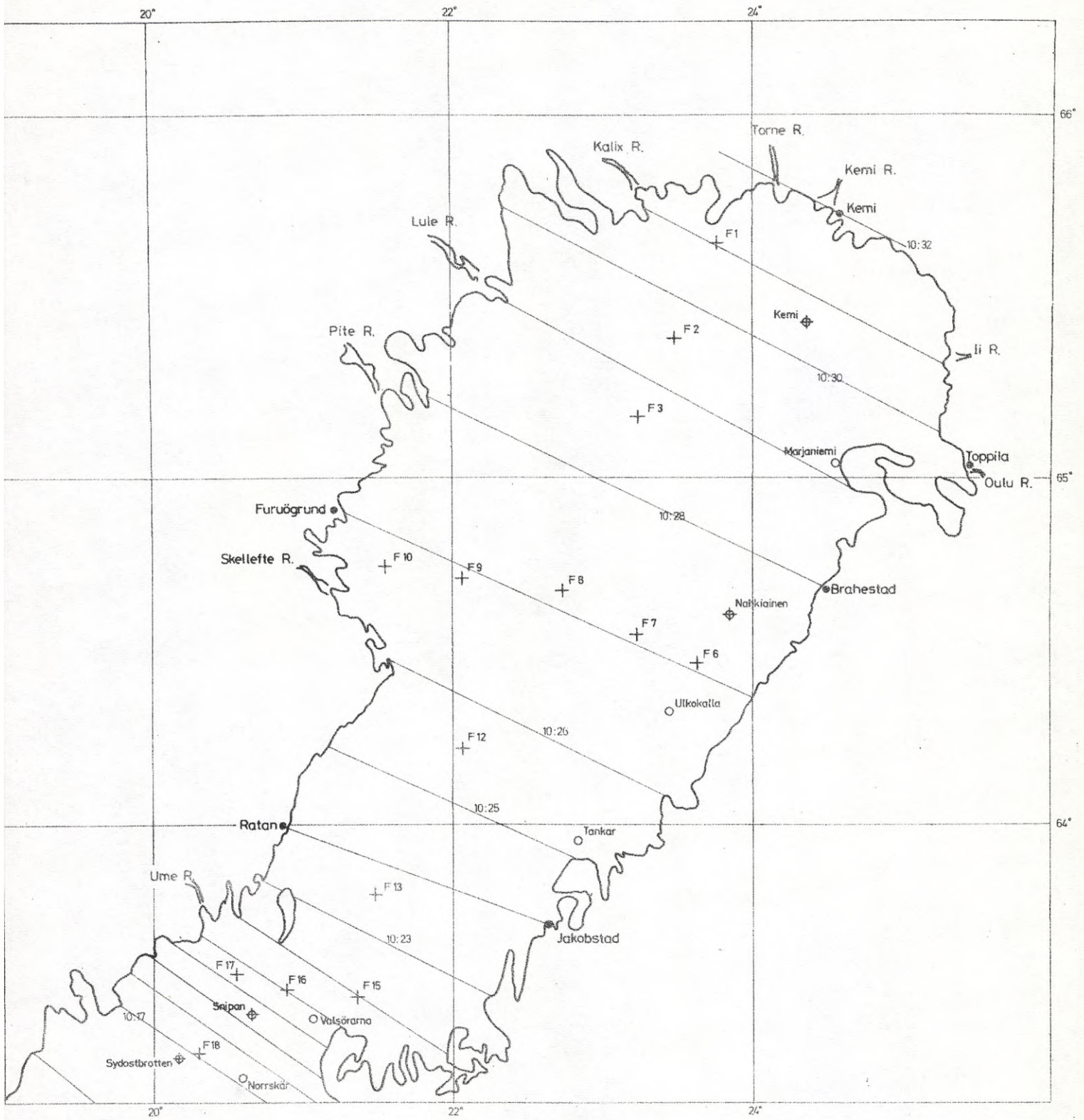
Swedish Light-vessels

| Station | Observing Period | National Punchcards or Mag. tape | VDC-A Mag. tape |
|---------|------------------|-------------------------------------|--------------------|
|---------|------------------|-------------------------------------|--------------------|

| | | | |
|-------------|-------------|--|--|
| Kalkgrundet | 1880 - 1914 | | |
|-------------|-------------|--|--|

| | | | |
|----------------|-------------|--|--|
| Kopparstenarne | 1883 - 1915 | | |
|----------------|-------------|--|--|

Fig. 1



Bothnian Bay

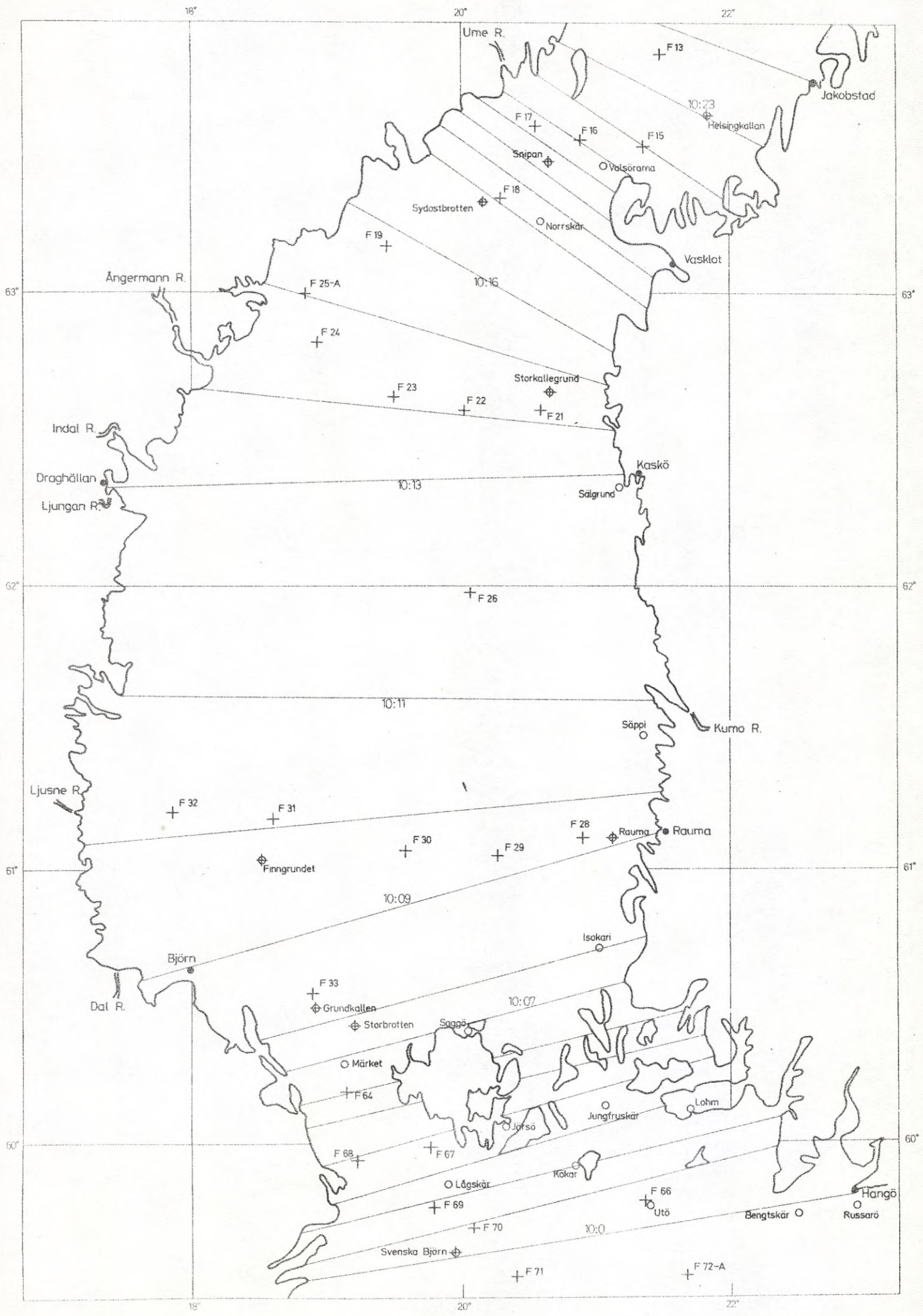


Fig. 3

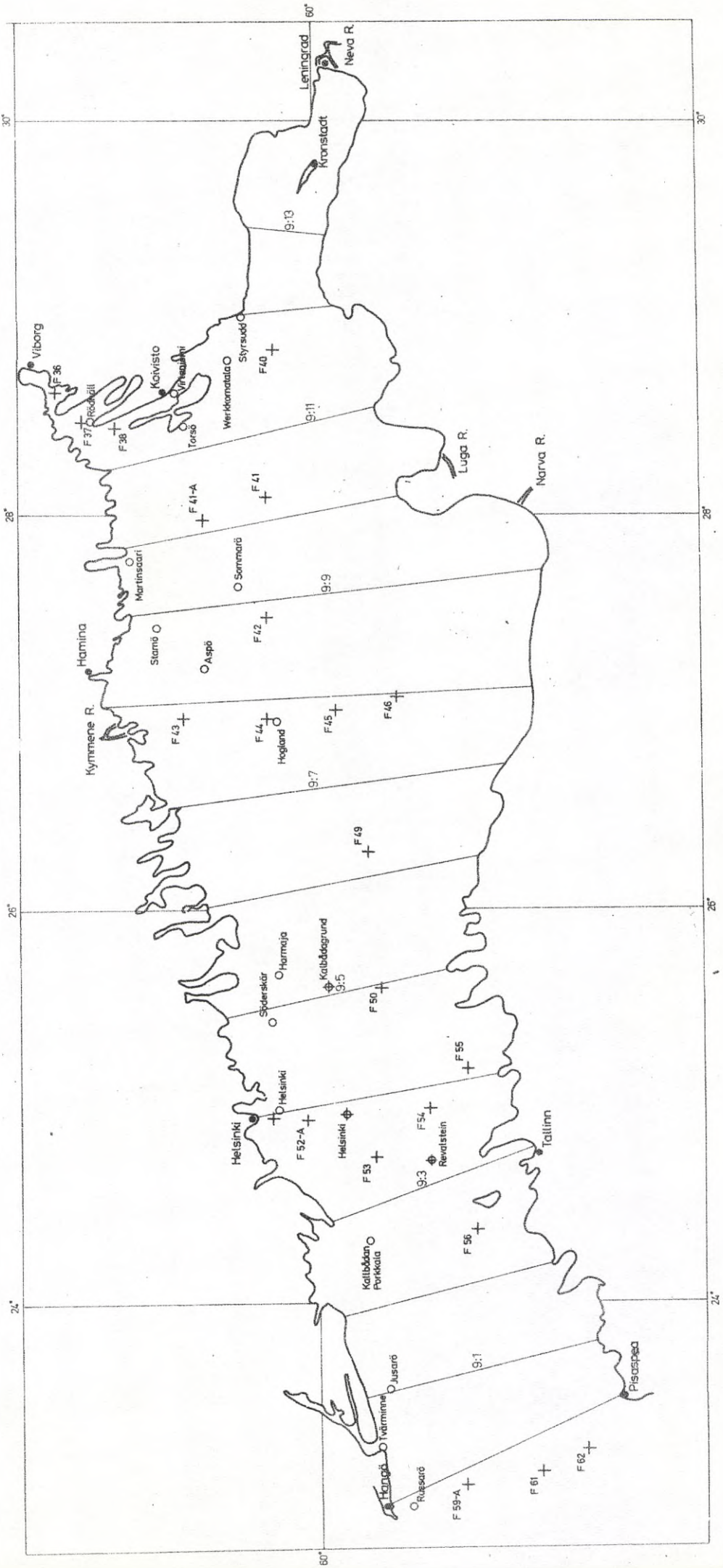


Fig. 4

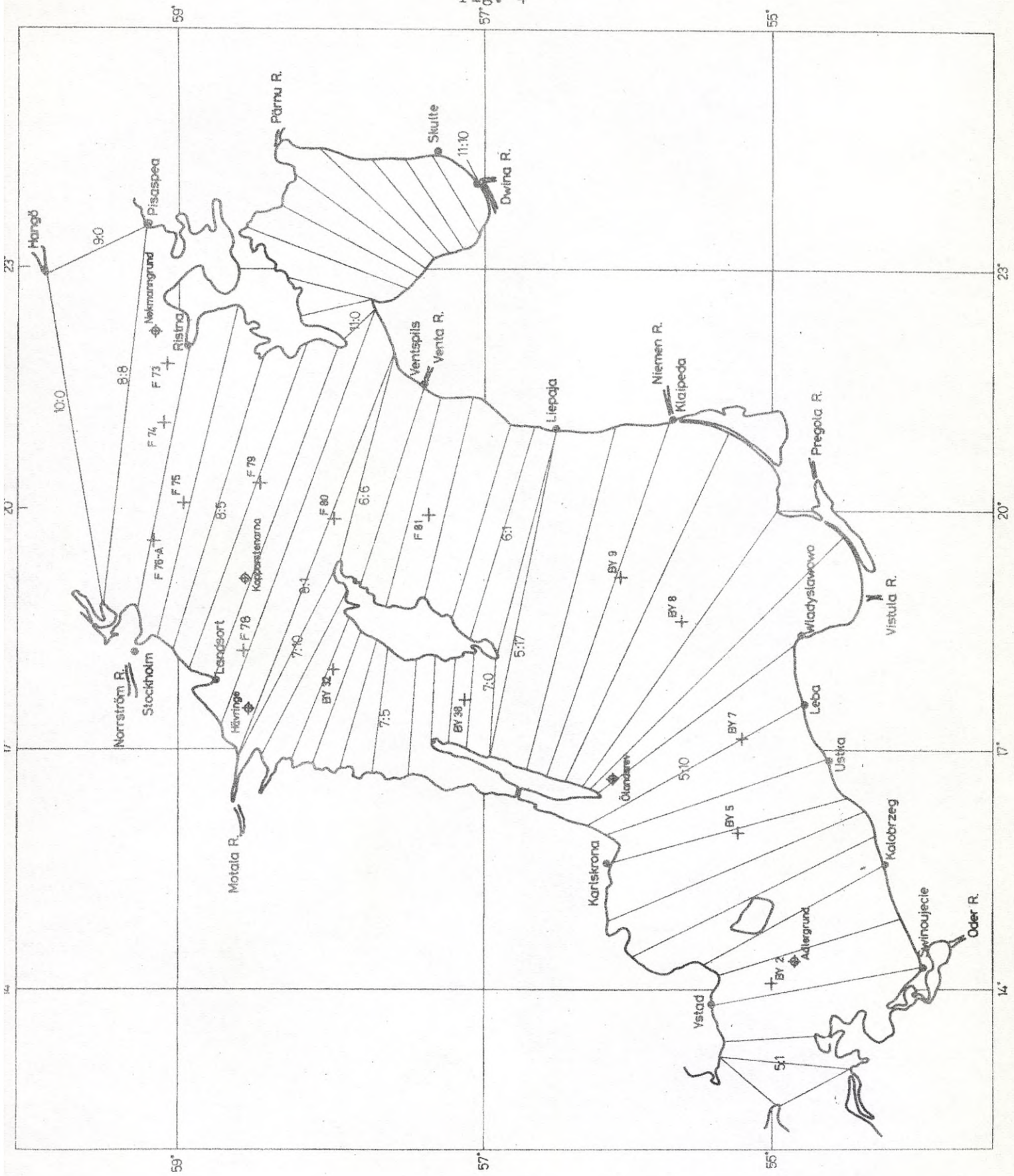


Fig. 5

