

The Salinity at the Shores of Southwest Iceland

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1. INTRODUCTION

It is well known that sea salt has long been extracted from sea water through evaporation. In recent years chemicals such as magnesium oxide, bromine and gypsum have also been extracted from the sea. This kind of production of course depends on various external factors, one of these being the salinity of the sea water.

In Iceland attention has also been directed to the possibility of producing chemicals from sea water. Raw materials are scarce, but the country is rich in natural energy sources. The production of sea salt has mainly been thought of in connection with the use of geothermal heat for evaporation, comparable to the use of solar heat in tropical or southern countries. This proposed production of salt and other chemicals from sea water made necessary the investigations here reported.

As well as being important with regard to commercial production of sea salts, these investigations will be of general oceanographical interest. The salinity content near the coasts depends not only on the run-off of fresh water from land but also on vertical mixing and ocean currents. Since the distribution of the species is to some extent dependent on salinity, this knowledge is a necessary link in investigations regarding the plant and animal life at the sea shores. Research in this field is not far advanced in this country but will undoubtedly be increased in the near future. The establishment of a marine biological station has been discussed. When choosing the site of such a station, the salinity content would of course have to be taken into consideration. It would preferably be built at a place where observations had proved the salinity fluctuations to be slight.

2. MATERIAL AND METHODS

The investigations were carried out jointly by the University Research Institute, Departments of Fisheries and Industry, and the Geothermal Department of the State Electrical Authority. The investigations started in late 1955 and continued throughout 1959.

The localities chosen for the salinity observations are shown on Fig. 1 and in Table 1. At each station samples were usually collected twice daily, at high tide and at low tide. The state of weather was recorded, and the air temperature measured at some of the stations. A reliable person, usually a local one, was entrusted with the collecting of samples. The data are listed in Table 2.

The salinity determinations were made by BIRGIR HALLDÓRSSON at the Department of Fisheries, chemical laboratory. The accuracy is estimated to be within $\pm 0.02\%$.

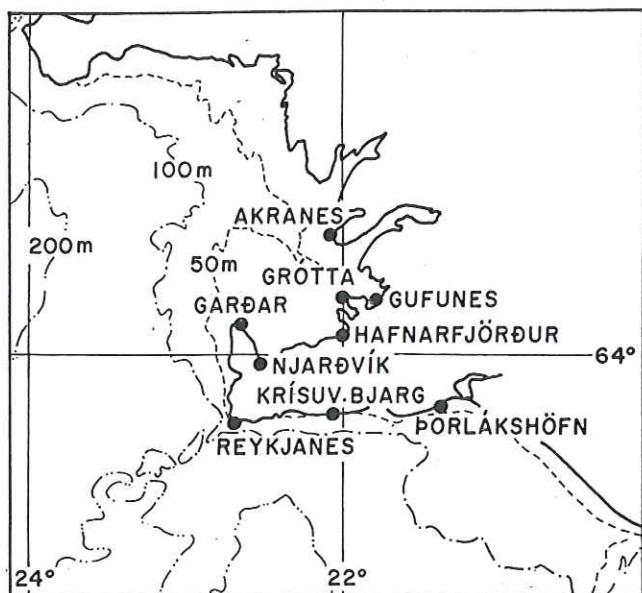


FIG. 1. Localities where samples were taken.

3. COMPARISON OF SALINITY AT DIFFERENT STATIONS

It is common knowledge that Atlantic water with relatively high salinities reaches the south and west coasts of Iceland. During past decades rather extensive salinity surveys have been carried out in Icelandic coastal waters and surrounding waters, especially by Danish, German and Icelandic investigators. The main features of the salinity distribution in the shelf area are thus fairly

well known. From the mean charts recently published by KRAUSS (1958) it is seen that the salinity of the coastal waters southwest of Iceland is normally 34.5–35.0‰ in March, 34.25–34.5‰ in May, similar or somewhat lower in August and 34.5–34.75‰ in October. The surface salinity of the coastal waters is therefore 0.25–0.5‰ higher in winter than in summer, but outside the shelf the seasonal fluctuations are less pronounced.

Only very few salinity observations have been made close to the shore. KRABBE and SÆMUNDSSON (1929) reported on the salinity in the harbour of Hafnarfjörður and SÆMUNDSSON (1943, p. 103) mentioned the salinity at a few localities at the shore.

TABLE 1.
Comparison of Salinity at Different Stations.

LOCALITY	NO. OF OBSERV.	SEASONS	SALINITY				
			LOWEST ¹	HIGHEST	MEAN LOW TIDE	MEAN HIGH TIDE	MEAN OF ALL OBSERV.
1. Akranes	58	Nov. 1956	31.39	33.99	32.95	33.08	33.01
2. Gufunes	20	Dec. '55 and May '56	28.82	34.23	33.53	32.93	33.23
3. Gróta	43	Apr.–May, 1958	33.59	34.97	34.41	34.51	34.47
4. Hafnarfjörður	86	Feb.–June, 1958	21.55	34.66	32.52	32.44	32.48
5. Innri Njarðvík	20	Apr.–May, 1958	30.57	34.50	33.13	34.21	33.67
6. Garðskagi	136	Apr.–May, 1958, Dec. 1958 and Dec. 1959	32.29	34.81	34.33	34.35	34.34
7. Reykjanes	46	May 1958	33.08	34.66	33.95	33.91	33.93
8. Krísuvíkurberg	120	Nov. 1958, Nov. 1959	23.50	35.14	.	.	32.90
9. Þorlákshöfn	48	Feb.–March 1957	18.68	34.21	27.19	28.48	27.81

As seen from Table 1, the present investigations cover a period of 4–5 years. The data from the various stations have been collected at different seasons and are consequently not quite comparable. However, they probably show the main features of the salinity distribution at each station. By comparing columns 3 and 4, showing minimum and maximum salinity at each station, it appears that the greatest variations occur at three stations, i.e. Hafnarfjörður, Krísuvíkurberg and Þorlákshöfn. At all other stations the difference between maximum and minimum salinity is slight. Usually, the salinity is similar at high tide and low tide (columns 5 and 6). Only two stations, Innri Njarðvík and Þorlákshöfn, have considerably higher salinities at high tide than at low tide. At Innri Njarðvík the samples collected at low tide proved to be almost consistently lower in salinity than those collected at high tide. At Þorlákshöfn, on the other hand, day to day salinity variations were much greater than the apparent variations due

to tides. It can therefore be concluded that at the shores of Faxaflói and southwest Iceland variations in salinity due to tides are generally slight.

The highest mean salinity was found at Grótta (34.47 %) and the second highest at Garðskagi (34.34 %). However, the true mean salinity at Garðskagi is probably slightly higher than at Grótta. When simultaneous observations were made at Grótta, Garðskagi and Reykjanes in May 1958, the mean for Garðskagi was 34.63 %, or somewhat higher than for Grótta and considerably higher than for Reykjanes. The observations made at Garðskagi in December 1958 and November–December 1959 showed somewhat lower salinity values than those found in May 1958, and for this reason the mean based on the three sets of observations was lowered. By far the lowest salinity was found at Þorlákshöfn, but the salinities at Hafnarfjörður and Krísuvík also proved comparatively low.

4. SALINITY VARIATIONS AND THEIR MAIN CAUSES

The variations in salinity at the different stations are illustrated on Fig. 2 and 3. Fig. 2 shows daily salinity values but Fig. 3 the results of weekly observations. It should be noted that the diagram for Hafnarfjörður is based on daily measurements for the period February–March, whereas during the period April–June the observations were made weekly. From Fig. 2 it will be seen that the salinity variations were comparatively slight at Akranes, somewhat greater at Gufunes but very slight at Grótta. At Grótta fresh water seems to have little effect on the salinity which at this locality is similar to what it is in most parts of Faxaflói at this time of year. At Hafnarfjörður the variations were considerable in late February and at the beginning of March but only slight in late March. Great variations, however, were indicated during the period April–June as seen from the weekly observations. At Garðskagi the influence of fresh water appears to be very slight. Here the salinity was especially high during spring, almost reaching the values typical for the surface waters in outer Faxaflói. At Reykjanes the salinity was lower and the variations were more pronounced than at Garðskagi. At Þorlákshöfn the salinity variations were most irregular.

In attempting to explain the observed variations in the salinity content at the shores of Iceland, there are especially four factors to be taken into consideration. These are: 1) discharge of fresh water from land, 2) variations due to seasons, 3) mixing conditions close to land and 4) influence of winds.

The first of these factors, the discharge of fresh water, is undoubtedly the main cause of the local salinity variations. Thus the variations in the salinity at Akranes can be ascribed to the influence of river discharge from Borgarfjörður and Leirárvogur. This influence is slight all the same, the Akranes peninsula being at some distance from the rivers and besides facing the open

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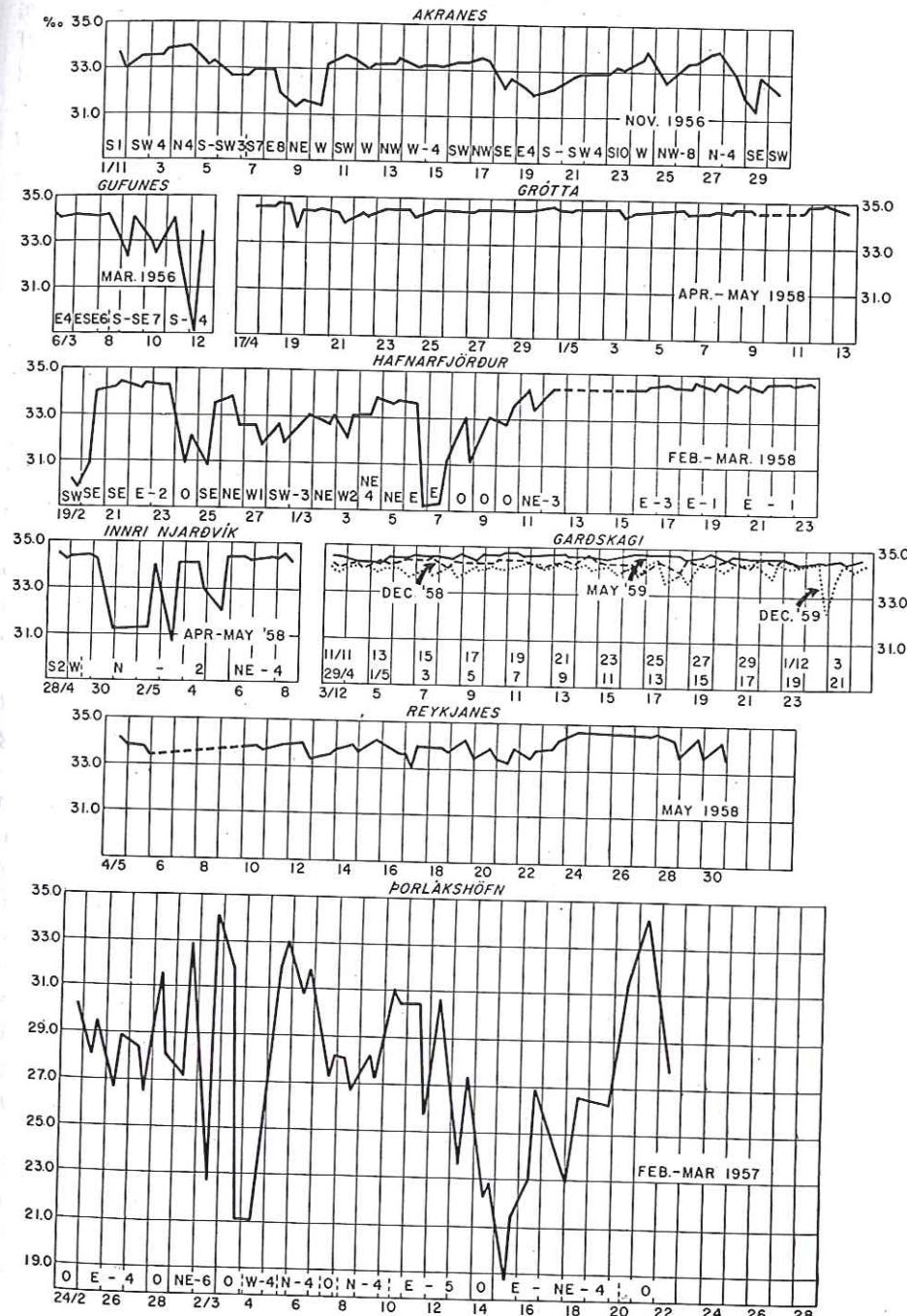


FIG. 2. Daily variations in salinity.

sea. At Straumur, a little south of Hafnarfjörður, a great deal of fresh water flows to the sea from under the lava. It has been suggested that the river Kaldá, originating near Helgafell but disappearing into the lavafields, has its run-off at this particular place. It seems likely that the low and irregular salinity found near Hafnarfjörður might be due to influence of fresh water from Straumur. It is also probable that considerable amount of ground water is transported towards sea through the fractured and jaunted lava of the southern part of the Reykjanes peninsula. SÆMUNDSSON (1943, p. 103) mentions that in a ravine leading out to sea at Grindavík the salinity had measured only 1–3‰ at the surface, 5‰ at 5 meters and 14.4‰ at 10 meters. The relatively low and variable salinity found at Krísuvík is probably caused by this kind of ground water, although the salinity at these localities might also be affected by the run-off from the big rivers of south Iceland. The low and variable salinity at Þorlákshöfn is no doubt caused by the proximity of the river Ölfusá.

Fluctuations due to seasons mainly appear in decreasing salinity in spring when the run-off of fresh water increases through melting of snow and ice. In winter a great deal of the precipitation will be bound on land as ice and snow, and higher salinities are therefore to be expected in winter than in other seasons. Besides, the increased stratification of the coastal water in summer will tend to lower the salinity near the shore during this season. The seasonal variations were clearly indicated at Krísuvík (Fig. 3). The salinity remained high throughout most of winter, from November to April, then decreased suddenly in May. When the spring melting was over, the salinity increased, being somewhat variable throughout summer, but on the whole lower than in winter. Judging from the diagrams the seasonal changes at Helgasker just south of Hafnarfjörður are similar to those at Krísuvíkurbjarg, but the salinity minimum in spring seems to occur a little earlier on the south side of the Reykjanes peninsula.

Regarding the third factor mentioned, some general conclusions can be arrived at. At localities facing the open sea vertical mixing by heavy seas and currents will be intense. Near promontories or capes, tidal currents are particularly strong. In bays and fjords on the other hand, the oceanic influence is naturally less pronounced and the renewal of the water will be slowed down. With these facts in mind, it is to be expected that fresh water influence will be more apparent at places like Innri Njarðvík and Gufunes than at Garðskagi and Reykjanes. The results generally confirm this. It is noteworthy, however, that the salinity at Garðskagi is higher and less variable than at Reykjanes even though the latter faces open sea more directly. The relatively low salinity at Reykjanes is undoubtedly due to admixture of fresh water from the east. This fresh water influence evidently does not reach Garðskagi. This seems to indicate that the surface water is carried away from the coast near Reykjanes, following the east side of the Reykjanes Ridge.

Wind direction and wind force (Beaufort) are inserted on the diagrams

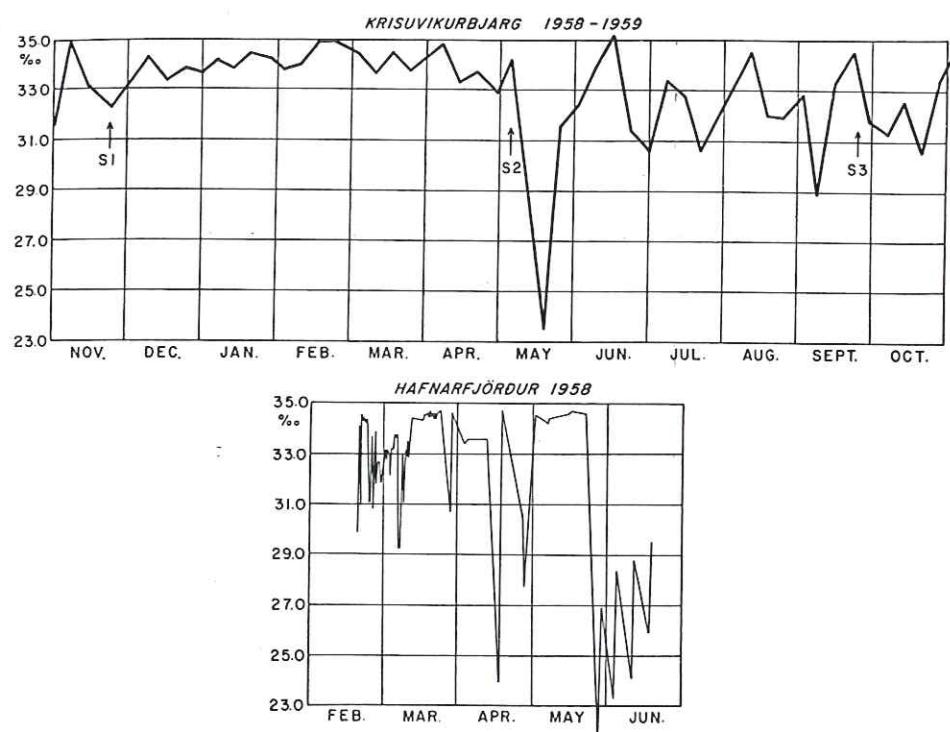


FIG. 3. Salinity variations near Hafnarfjörður and at Krísuvík.

where the most extreme salinity variations were observed, i.e. at Akranes, Gufunes, Hafnarfjörður, Innri Njarðvík and Þorlákshöfn.

At Akranes east and northeasterly winds would supposedly increase the flow of fresh water from Borgarfjörður and Leirárvogur. This is also clearly indicated on the diagrams. Thus on November 8th and 9th 1956, the salinity at Akranes decreased considerably, winds having turned east and northeasterly. On November 19th there was also a low salinity concurrent with easterly winds and on November 29th with northerly winds.

At Gufunes the highest salinities were found when the wind was from the east, but decreased when the winds became southerly. It seems very likely that this is an influence from the river Elliðaá.

As previously mentioned, the salinity variations near Hafnarfjörður could possibly be due to discharge of fresh water at Straumur. One could therefore expect the salinity to decrease in southerly and westerly winds but increase in easterly and northerly winds. However, the observations do not show any such correlation. This is also true at Innri Njarðvík.

At Þorlákshöfn the influence from the big river Ölfusá must be greatest in easterly winds. This is also apparent from the diagram. The lowest salinity

was observed on March 3rd and 4th 1957 after strong northeasterly winds and again on March 14th and 15th following moderate to strong easterly winds.

5. SALINITY VARIATIONS AT KRÍSUVÍKURBJARG

From October 1958 to October 1959 weekly samples were collected at Krísvíkurbjarg (see Fig. 3). In addition, hourly samples were collected through a twenty-four hours' period three times, i.e. November 1958, May 1959 and September 1959.

The location was chosen at a place where the side of the cliff is almost vertical, with an underlying cavern. This cavern is about 2 meters deep at spring tide. The observations were carried out from a height of 43 meters (see Fig. 4).

A mast measuring 4 meters was erected near the edge of the cliff. Attached to the mast was an 8.5 m long boom that could be swung horizontally 180°. On the end of the boom there was a small pulley with steel wire running through. A four liter plastic container for sea sampling was fastened to the wire. The boom extended about 4 meters from the edge of the cliff. With this arrangement (Fig. 5) it was easy to collect the samples, since the container hit the surface some 4–5 meters from the base of the cliff.

The results are given in Table 2 and further illustrated in Fig. 3 and 6. The salinity variations proved quite variable. The maximum salinity was about 35‰, but the minimum a little over 23‰. The variations were smallest from December through April. The mean salinity for this period was 34.0‰, the lowest value being about 33‰. In May the variations were greatest and the mean salinity lowest (about 29‰). During summer and autumn the variations were smaller than in spring but distinctly greater than in winter. The mean salinity for the period June–November was 32.6‰, the lowest salinity being 29‰. The mean for the whole year was 32.9‰.

As mentioned before the salinity variations seem to be in close connection with precipitation and melting of snow. In summer high salinities were generally found when the wind was blowing from the north or northeast. In these wind directions there is usually less precipitation than if the wind direction is southerly. The salinity at the south coast may also increase because of upwelling, when the wind is from the north.

Twenty-four hours' observations (Fig. 6) were made to study short-periodical variations in the salinity content, due to tides or for other reasons.

As elsewhere along the southwest coast (cf. p. 4) the tides did not influence the salinity content to any appreciable extent. However, at times when the mean salinity was low, there appeared to be a marked increase in salinity shortly after high tide and some decrease in salinity after low tide. Salinity

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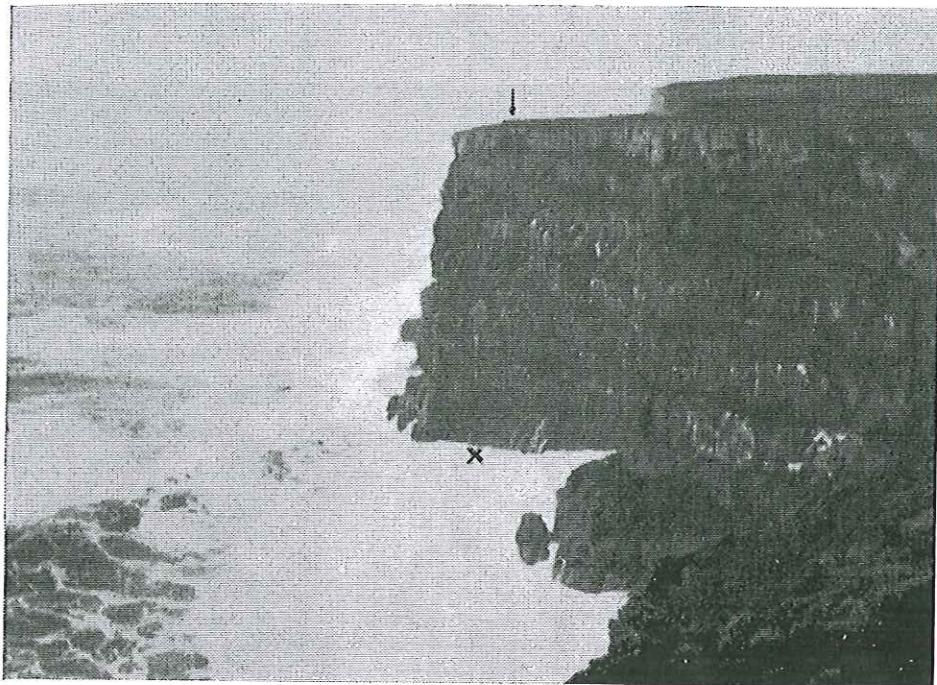


FIG. 4. Krísuvíkurbjarg. The point where samples were taken is indicated by an arrow.



FIG. 5. The arrangement used for the sample collecting.

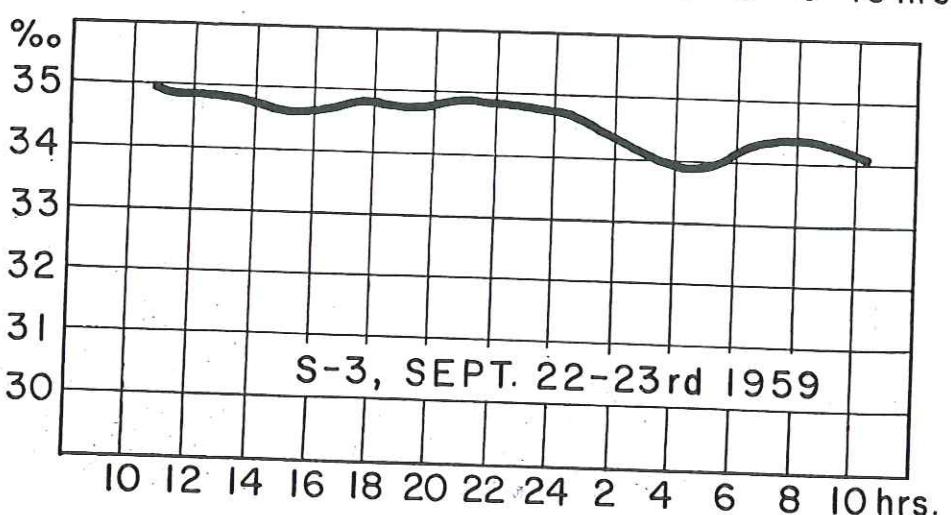
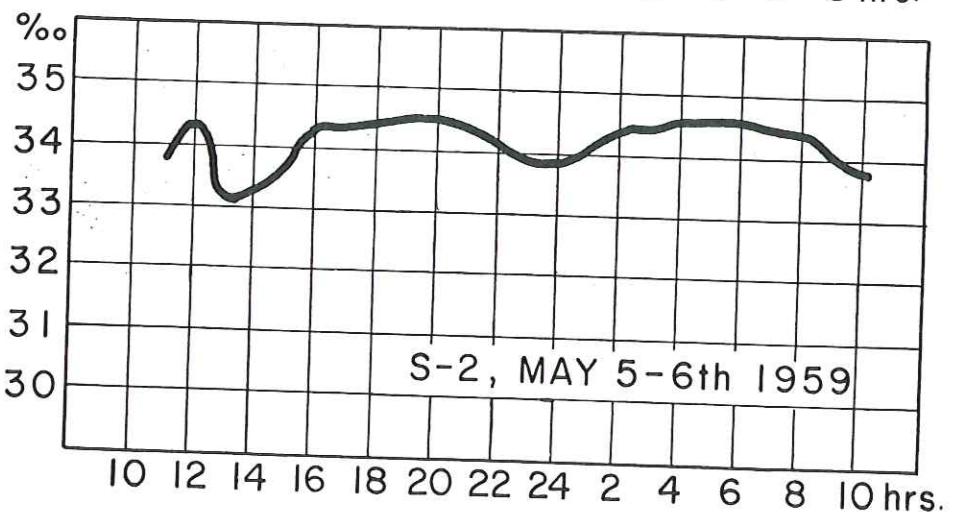
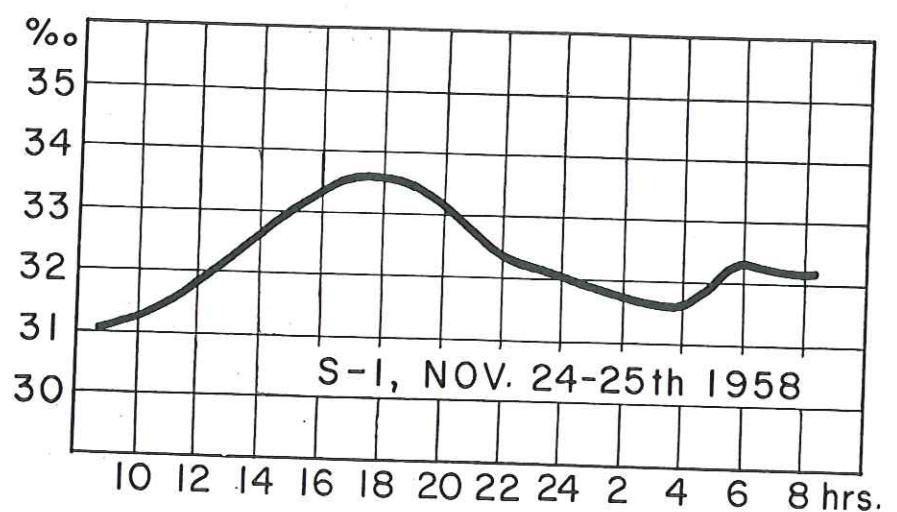


FIG. 6. Twenty-four hours' variations in salinity at Krísuvíkurþjarg.

variations unrelated to tides seemed on the other hand to be much greater and sometimes quite rapid. These variations were also most noticeable when the salinity was low.

November 24–25th the mean salinity was only 32.28 ‰, but the amplitude was 2.4 ‰. May 5–6th the mean salinity was 34.21 and the amplitude 1.4 ‰. September 22–23rd the mean salinity was usually high and the twenty-four hours' amplitude amounted to 1.0 ‰. The most rapid variation observed was 1.3 ‰ per hour.

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APPENDIX

TABLE 2.
Observational data.

LOCALITY	DATE	HOUR	AIR TEMP. °C	WEATHER	SEA TEMP. °C	SALINITY ‰	TIDE
Akranes	1/11 '56	16.20	8.8	S-1	6.8	33.61	h.
"	"	22.30	7.0	"	6.7	32.95	l.
"	2/11 '56	10.05	7.9	SW-3-4	6.7	33.30	l.
"	"	17.05	8.0	"	6.7	33.48	h.
"	3/11 '56	11.33	7.8	SW-3-4, rain	6.7	33.57	l.
"	"	17.40	7.7	SW-3-4	6.7	33.80	h.
"	4/11 '56	12.11	4.2	N-3-4	6.5	33.93	l.
"	"	18.20	3.5	E-1	6.6	33.95	h.
"	5/11 '56	13.00	8.7	S-2, drizzle	6.5	33.18	l.
"	"	19.00	7.7	SW-2	6.6	33.27	h.
"	6/11 '56	13.25	8.8	SW-3-4, rain	6.9	32.65	l.
"	"	19.40	7.8	SE-9-10, rain	7.1	32.68	h.
"	7/11 '56	08.00	9.5	S-6-7, showers	7.2	32.68	h.
"	"	14.35	9.2	SW-7-8, showers	7.2	32.97	l.
"	8/11 '56	08.45	10.2	E-7-8, rain	6.3	32.95	h.
"	"	15.00	6.3	W-7-8	7.1	31.99	h.
"	9.11 '56	09.33	4.4	NE-3-4	6.6	31.39	h.
"	"	15.50	6.2	S-7-8, showers	7.1	31.58	l.
"	10/11 '56	10.35	5.0	W-7-8	6.5	31.39	h.
"	"	16.50	5.0	W-3-4	6.8	33.21	l.
"	11/11 '56	11.50	5.0	S-1	6.6	33.61	h.
"	"	18.05	3.2	SW-3-4, rain	6.5	33.52	l.
"	12/11 '56	13.00	6.1	W-7-8, showers	6.5	33.05	h.
"	"	19.20	4.4	W-3-4	6.4	33.18	l.
"	13/11 '56	14.00	3.2	NW-7-8	6.3	33.28	h.
"	"	20.15	3.9	"	6.2	33.48	l.
"	14/11 '56	15.00	6.2	NW-3-4, rain	6.4	33.14	h.
"	"	21.00	6.6	W-7-8, showers	6.4	33.31	l.
"	15/11 '56	09.20	6.0	W-3-4, drizzle	6.5	33.20	l.
"	"	15.30	7.4	" rain	6.5	33.20	h.
"	16/11 '56	09.55	8.1	SW-3-4, drizzle	6.7	33.38	l.
"	"	16.05	8.7	SW-7-8, showers	6.8	33.38	h.
"	17/11 '56	10.30	4.8	NW-3-4, rain	6.7	33.51	l.
"	"	16.40	5.0	" showers	6.8	33.42	h.
"	18/11 '56	11.08	4.5	SE-1, showers	6.5	32.27	l.
"	"	17.15	1.4	NW-3-4, rain	6.2	32.67	h.
"	19/11 '56	11.50	5.8	E-3-4, rain	6.0	32.20	l.
"	"	17.57	3.0	E-7-8, showers	5.9	32.02	h.

h. = high tide; l. = low tide.

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LOCALITY	DATE	HOUR	AIR TEMP. °C	WEATHER	SEA TEMP. °C	SALINITY %	TIDE
Akranes	20/11 '56	13.30	2.8	SW-3-4	5.5	32.21	l.
"	21/11 '56	13.20	3.0	W-3-4	6.0	32.82	l.
"	" 22/11 '56	17.30	1.6	„ snow	6.0	32.87	h.
"	" 22/11 '56	14.10	2.5	„	5.6	32.97	l.
"	" 23/11 '56	20.24	2.9	„ showers	5.5	32.96	h.
"	" 23/11 '56	08.45	1.3	SE-3-4	5.5	33.21	h.
"	" 24/11 '56	15.03	4.3	S-9-10, rain	5.5	33.13	l.
"	" 24/11 '56	09.45	3.8	W-7-8	5.6	33.58	h.
"	" 25/11 '56	16.06	3.8	„ showers	5.8	33.88	l.
"	" 25/11 '56	10.54	1.5	NW-7-8	5.1	32.58	h.
"	" 26/11 '56	17.17	2.3	„	5.2	32.80	l.
"	" 26/11 '56	12.10	0.0	„	5.2	33.41	h.
"	" 27/11 '56	18.33	÷2.0	„	5.2	33.47	l.
"	" 27/11 '56	13.22	< 0	N-3-4	5.2	33.93	h.
"	" 28/11 '56	19.35	„	„	5.3	33.99	l.
"	" 28/11 '56	14.30	„	„	3.3	32.93	h.
"	" 29/11 '56	20.36	„	„	4.0	32.07	l.
"	" 29/11 '56	09.11	0.5	SE-7-8	3.8	31.48	l.
"	" 30/11 '56	15.20	2.5	SE-6-7	4.0	32.91	h.
"	" 30/11 '56	09.57	÷0.5	SW-6-7, snow	4.3	32.22	l.
Gufunes	20/12 '55	00.00	.	...	.	34.20	.
"	"	09.30	.	E-5	.	34.22	.
"	"	11.30	.	...	.	34.20	.
"	"	13.30	.	...	.	34.23	.
"	"	15.30	.	...	.	34.16	.
"	"	17.30	.	NE-4	.	34.18	.
"	"	19.30	.	NNE-5	.	34.18	.
"	6/3 '56	00.30	.	E-4	.	34.15	h.
"	"	06.10	.	„	.	34.06	l.
"	7/3 '56	02.10	.	ESE-6	.	34.16	h.
"	"	08.10	.	„	.	34.16	l.
"	8/3 '56	03.15	.	ESE-4	.	34.07	h.
"	"	09.10	.	SE-8	.	34.11	l.
"	9/3 '56	03.50	.	S-6	.	32.23	h.
"	"	09.55	.	SE-3	.	34.12	l.
"	10/3 '56	04.25	.	S-8	.	33.08	h.
"	"	10.25	.	S-6	.	32.48	l.
"	11/3 '56	04.55	.	S-5	.	33.98	h.
"	"	10.55	.	SE-4	.	32.50	l.
"	12/3 '56	05.25	.	SSW-5	.	28.82	h.
"	"	11.25	.	S-4	.	33.31	l.
Gróttá	17/4 '58	18.00	.	...	.	34.47	h.
"	18/4 '58	12.30	.	...	.	34.37	l.
"	"	18.30	.	...	.	34.56	h.
"	19/4 '58	07.30	.	...	.	34.58	h.
"	"	13.35	.	...	.	32.79	l.
"	"	19.40	.	...	.	34.38	h.

LOCALITY	DATE	HOUR	AIR TEMP. °C	WEATHER	SEA TEMP. °C	SALINITY %o	TIDE
Gróttá	20/4 '58	07.35	.	...	.	34.33	h.
"	,"	13.30	.	...	.	34.37	l.
"	,"	20.00	.	...	.	34.38	h.
"	21/4 '58	08.15	.	...	.	34.27	h.
"	,"	14.20	.	...	.	33.80	l.
"	22/4 '58	09.00	.	...	.	34.24	h.
"	,"	15.00	.	...	.	34.15	l.
"	23/4 '58	09.15	.	...	.	34.41	h.
"	,"	15.10	.	...	.	34.45	l.
"	24/4 '58	09.35	.	...	.	34.44	h.
"	,"	16.00	.	...	.	34.14	l.
"	25/4 '58	10.00	.	...	.	34.45	h.
"	,"	16.10	.	...	.	34.42	l.
"	27/4 '58	05.15	.	...	.	34.40	l.
"	,"	11.25	.	...	.	34.48	h.
"	29/4 '58	14.05	.	...	.	34.44	h.
"	30/4 '58	15.20	.	...	.	34.64	h.
"	,"	21.30	.	...	.	34.57	l.
"	1/5 '58	17.00	.	...	.	34.57	h.
"	,"	23.00	.	...	.	34.55	l.
"	3/5 '58	13.30	.	...	.	34.57	l.
"	,"	19.35	.	...	.	34.23	h.
"	4/5 '58	08.05	.	...	.	34.46	h.
"	6/5 '58	09.00	.	...	.	34.62	h.
"	,"	15.00	.	...	.	34.48	l.
"	7/5 '58	09.10	.	...	.	34.50	h.
"	,"	21.25	.	...	.	34.59	h.
"	8/5 '58	09.45	.	...	.	34.55	h.
"	,"	16.00	.	...	.	34.62	l.
"	9/5 '58	05.40	.	...	.	34.65	l.
"	,"	11.30	.	...	.	34.57	h.
"	11/5 '58	12.45	.	...	.	34.69	h.
"	,"	19.00	.	...	.	34.81	h.
"	12/5 '58	08.00	.	...	.	34.87	l.
"	,"	14.00	.	...	.	34.97	h.
"	13/5 '58	09.00	.	...	.	34.72	l.
"	,"	15.00	.	...	.	34.65	h.
Hafnarfjörður	19/2 '58	13.00	5.0	SW-1	.	30.21	l.
"	,"	19.00	5.0	calm	.	29.84	h.
"	20/2 '58	07.00	4.0	”	.	30.94	h.
"	,"	13.00	2.0	SE-1	.	34.08	l.
"	21/2 '58	08.00	2.0	SE-3	.	34.32	h.
"	,"	14.00	1.0	E-2	.	34.47	l.
"	22/2 '58	08.00	0.0	”	.	34.28	h.
"	,"	14.00	0.0	”	.	34.40	l.
"	23/2 '58	09.00	0.0	”	.	34.36	h.
"	,"	15.00	0.0	E-3	.	34.35	l.

THE SALINITY AT THE SHORES OF SOUTHWEST ICELAND

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TIDE

	LOCALITY	DATE	HOUR	AIR TEMP. °C	WEATHER	SEA TEMP. °C	SALINITY %	TIDE
h.	Hafnarfjörður	24/2 '58	09.00	0.0	calm	.	30.96	h.
l.	"	"	15.00	-1.0	"	.	32.21	l.
h.	"	25/2 '58	10.00	0.0	SE-2	.	30.84	h.
h.	"	"	16.00	0.0	calm	.	33.62	l.
l.	"	26/2 '58	10.00	2.0	NE-2	.	33.86	h.
h.	"	"	16.00	3.0	calm	.	32.69	l.
l.	"	27/2 '58	11.00	2.0	W-2	.	32.61	h.
h.	"	"	17.00	2.0	calm	.	31.82	l.
l.	"	28/2 '58	11.00	0.0	SW-4	.	32.63	h.
h.	"	"	17.00	0.0	S-3	.	31.82	l.
l.	"	1/3 '58	13.00	0.0	SW-3	.	32.75	h.
h.	"	"	19.00	-1.0	"	.	33.09	l.
l.	"	2/3 '58	14.00	0.0	NE-2	.	32.74	h.
l.	"	"	20.00	-1.0	SW-3	.	33.09	l.
h.	"	3/3 '58	10.00	-2.0	calm	.	32.07	l.
h.	"	"	15.00	0.0	W-2	.	33.13	h.
h.	"	4/3 '58	12.00	-3.0	NE-5	.	33.13	l.
l.	"	"	16.00	-1.0	NE-4	.	33.74	h.
h.	"	5/3 '58	11.00	2.0	E-1	.	33.63	l.
l.	"	"	17.00	-3.0	NE-2	.	33.75	h.
l.	"	6/3 '58	11.00	2.0	E-1	.	33.66	l.
h.	"	"	18.00	-2.0	E-2	.	29.26	h.
h.	"	7/3 '58	12.00	-2.0	E-1	.	29.31	l.
h.	"	"	19.00	0.0	E-2	.	31.15	h.
l.	"	8/3 '58	13.00	0.0	calm	.	33.09	l.
h.	"	"	19.00	-3.0	"	.	31.12	h.
h.	"	9/3 '58	09.00	-2.0	"	.	32.77	h.
h.	"	"	14.00	-1.0	"	.	33.07	l.
l.	"	10/3 '58	10.00	-2.0	"	.	32.78	h.
l.	"	"	15.00	-2.0	"	.	33.47	l.
h.	"	11/3 '58	10.00	-3.0	NE-4	.	34.36	h.
h.	"	"	15.00	-2.0	NE-3	.	33.48	l.
l.	"	12/3 '58	11.00	-4.0	"	.	34.33	h.
h.	"	"	17.00	-3.0	"	.	34.31	l.
l.	"	16/3 '58	09.00	4.0	E-3	.	34.29	l.
l.	"	"	15.00	2.0	E-2	.	34.47	h.
h.	"	17/3 '58	10.00	3.0	E-3	.	34.51	l.
l.	"	"	16.00	4.0	"	.	34.47	h.
h.	"	18/3 '58	11.00	1.0	E-1	.	34.40	l.
h.	"	"	17.00	2.0	"	.	34.62	h.
l.	"	19/3 '58	12.00	2.0	"	.	34.40	l.
h.	"	"	17.00	2.0	"	.	34.64	h.
l.	"	20/3 '58	12.00	2.0	"	.	34.36	l.
h.	"	"	18.00	2.0	"	.	34.59	h.
l.	"	21/3 '58	13.00	2.0	"	.	34.35	l.
h.	"	"	18.00	2.0	"	.	34.61	h.
l.	"	22/3 '58	13.00	3.0	calm	.	34.66	l.
l.	"	"	18.00	3.0	E-1	.	34.61	h.

LOCALITY	DATE	HOUR	AIR TEMP. °C	WEATHER	SEA TEMP. °C	SALINITY ‰	TIME
Hafnarfjörður	23/3 '58	14.00	3.0	calm	.	34.65	l.
"	"	19.00	3.0	E-1	.	34.57	h.
"	27/3 '58	10.00	-1.0	"	.	34.62	h.
"	"	17.00	0.0	E-2	.	30.61	l.
"	3/4 '58	11.00	5.0	S-2	.	33.55	l.
"	"	16.00	5.0	"	.	33.36	h.
"	11/4 '58	13.00	6.0	SE-4	.	33.43	h.
"	"	18.00	6.0	SE-2	.	33.59	l.
"	17/4 '58	13.00	5.0	calm	.	34.69	l.
"	"	18.00	4.0	"	.	23.92	h.
"	26/4 '58	11.00	6.0	"	.	30.52	h.
"	"	18.00	5.0	NW-3	.	27.78	l.
"	1/5 '58	11.00	4.0	calm	.	34.12	l.
"	"	15.00	3.0	"	.	34.45	h.
"	7/5 '58	15.00	2.0	N-2	.	34.19	l.
"	"	19.00	2.0	N-3	.	34.35	h.
"	15/5 '58	10.00	3.0	calm	.	34.61	l.
"	"	16.00	3.0	"	.	34.54	h.
"	21/5 '58	13.00	2.0	N-4	.	34.51	l.
"	"	19.00	2.0	"	.	34.53	h.
"	28/5 '58	14.00	4.0	S-2	.	21.55	h.
"	"	19.00	5.0	S-3	.	26.86	l.
"	3/6 '58	12.00	6.0	calm	.	23.28	l.
"	"	18.00	6.0	"	.	28.37	h.
"	10/6 '58	12.00	5.0	NW-3	.	28.80	h.
"	"	18.00	5.0	NW-2	.	24.09	l.
"	17/6 '58	.	7.0	SE-3	.	25.88	l.
"	"	17.00	7.0	SE-2	.	29.45	h.
Innri Njarðvík	28/4 '58	12.41	.	S-2, showers	.	34.47	h.
"	"	19.08	.	" partly cloudy	.	34.29	l.
"	29/4 '58	01.57	.	W, rain	.	34.41	h.
"	"	20.00	.	N, partly cloudy	.	34.45	l.
"	30/4 '58	02.54	.	NE-1-2 "	.	34.28	h.
"	"	21.05	.	" "	.	31.24	l.
"	2/5 '58	10.00	.	" "	.	31.37	l.
"	"	17.30	.	" "	.	34.10	h.
"	3/5 '58	12.00	.	N-2 "	.	30.57	l.
"	"	18.00	.	" "	.	34.13	h.
"	4/5 '58	12.35	.	" "	.	34.18	l.
"	"	18.45	.	" "	.	33.00	h.
"	5/5 '58	12.50	.	" "	.	32.05	l.
"	"	20.30	.	" "	.	34.43	h.
"	6/5 '58	13.30	.	NE-4-5, snow	.	34.46	l.
"	"	21.30	.	" "	.	34.37	h.
"	7/5 '58	14.00	.	NE-2, partly cl.	.	34.43	l.
"	"	20.00	.	" "	.	34.40	h.
"	8/5 '58	09.15	.	" "	.	34.50	h.
"	"	15.30	.	" "	.	34.30	l.

THE SALINITY AT THE SHORES OF SOUTHWEST ICELAND

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TIDE

	LOCALITY	DATE	HOUR	AIR TEMP. °C	WEATHER	SEA TEMP. °C	SALINITY %	TIDE
l.	Garðskagi	29/4 '58	08.40	.	SE-2, cloudy	.	34.49	l.
h.	"	"	14.45	.	NE-2, partly cl.	.	34.47	h.
h.	"	30/4 '58	09.30	.	" "	.	34.28	l.
l.	"	"	15.50	.	N-1 "	.	34.25	h.
l.	"	1/5 '58	10.25	.	N-2 "	.	34.25	l.
h.	"	"	16.40	.	N-3-4 "	.	34.44	h.
h.	"	2/5 '58	11.30	.	SW-2 "	.	34.46	l.
l.	"	"	17.50	.	" "	.	34.53	h.
l.	"	3/5 '58	12.30	.	N-3-4 "	.	34.48	l.
h.	"	"	19.00	.	N-5 "	.	34.55	h.
h.	"	4/5 '58	13.05	.	NE-2 "	.	34.44	l.
l.	"	"	19.20	.	N-2 "	.	34.70	h.
i.	"	5/5 '58	13.40	.	NE-	"	34.44	l.
h.	"	"	20.00	.	NE-5 "	.	34.66	h.
l.	"	6/5 '58	14.30	.	NE-5, cloudy	.	34.70	l.
h.	"	"	21.00	.	" "	.	36.76	h.
l.	"	7/5 '58	09.30	.	NE-3-4, partly cl.	.	34.77	h.
h.	"	"	15.40	.	N-3-4 "	.	34.61	l.
l.	"	8/5 '58	10.00	.	NE-5 "	.	34.68	h.
h.	"	"	16.15	.	" "	.	34.69	l.
h.	"	9/5 '58	11.00	.	N-3-4 "	.	34.75	h.
l.	"	"	17.15	.	" "	.	34.61	l.
l.	"	10/5 '58	12.00	.	NE-2 "	.	34.67	h.
h.	"	"	18.15	.	" "	.	34.63	l.
h.	"	11/5 '58	07.00	.	" "	.	34.58	l.
l.	"	"	13.15	.	NE-3-4 "	.	34.62	h.
l.	"	12/5 '58	08.00	.	N-3-4 "	.	34.76	l.
h.	"	"	14.15	.	N-5 "	.	34.77	h.
h.	"	13/5 '58	09.00	.	" "	.	34.77	l.
l.	"	"	15.15	.	" "	.	34.77	h.
h.	"	14/5 '58	10.20	.	N-3-4, "	.	34.71	l.
l.	"	"	16.30	.	E-3-4, cloudy	.	34.66	h.
h.	"	15/5 '58	11.00	.	NE-2, partly cl.	.	34.72	l.
l.	"	"	17.10	.	" "	.	34.81	h.
l.	"	16/5 '58	12.00	.	calm, cloudy	.	34.55	l.
h.	"	"	18.15	.	" partly cl.	.	34.77	h.
l.	"	17/5 '58	12.45	.	NE-3-4 "	.	34.70	l.
h.	"	"	18.40	.	N-2 "	.	34.70	h.
l.	"	18/5 '58	13.20	.	SW-3-4 "	.	34.69	l.
h.	"	"	19.40	.	SW-2 "	.	34.72	h.
l.	"	19/5 '58	07.45	.	NE-2, cloudy	.	34.59	h.
h.	"	"	14.00	.	NE-3-4 "	.	34.48	l.
l.	"	20/5 '58	08.20	.	NE-5 "	.	34.62	h.
l.	"	"	14.35	.	N-3-4, partly cl.	.	34.57	l.
h.	"	21/5 '58	09.00	.	N-5 "	.	34.68	h.
h.	"	"	15.10	.	N-5-6 "	.	34.57	l.
l.	"	22/5 '58	10.00	.	NE-5-6, partly cl.	.	34.72	h.

LOCALITY	DATE	HOUR	AIR TEMP. °C	WEATHER	SEA TEMP. °C	SALINITY %	TIDE
Garðskagi	3/12 '58	10.00	.	SW-5-6, snow	.	34.19	h.
"	"	16.15	.	" "	.	34.04	l.
"	4/12 '58	11.00	.	SW-2, partly cl.	.	34.25	h.
"	"	17.20	.	SE-2, cloudy	.	33.98	l.
"	5/12 '58	12.20	.	SW-5, rain	.	34.38	h.
"	"	18.50	.	SE-3-4, rain	.	34.20	l.
"	6/12 '58	07.30	.	SE-2, cloudy	.	34.30	l.
"	"	14.00	.	" "	.	34.39	h.
"	7/12 '58	08.35	.	SE-1 "	.	34.35	l.
"	"	15.00	.	N-2 "	.	34.44	h.
"	8/12 '58	09.50	.	NE-5-6, partly cl.	.	34.06	l.
"	"	15.20	.	N-5	.	34.35	h.
"	9/12 '58	10.25	.	SE-3-4, cloudy	.	34.30	l.
"	"	16.20	.	SE-2 "	.	34.30	h.
"	10/12 '58	11.05	.	NE-3-4 "	.	34.35	l.
"	"	17.15	.	" "	.	34.46	h.
"	11/12 '58	12.00	.	NE-2, "	.	34.46	l.
"	"	18.10	.	E-2 "	.	34.41	h.
"	12/12 '58	12.45	.	NE-5-6, partly cl.	.	34.12	l.
"	"	19.00	.	NE-2 "	.	34.24	h.
"	13/12 '58	13.30	.	" "	.	34.41	l.
"	"	20.00	.	" "	.	34.38	h.
"	14/12 '58	14.15	.	NE-3-4 "	.	34.70	l.
"	"	20.30	.	" "	.	34.49	h.
"	15/12 '58	08.35	.	" "	.	34.37	h.
"	"	14.45	.	" "	.	34.32	l.
"	16/12 '58	09.20	.	N-5-6, cloudy	.	34.35	h.
"	"	15.35	.	" "	.	33.85	l.
"	17/12 '58	10.15	.	N-5, partly cl.	.	34.37	h.
"	"	16.30	.	" "	.	34.46	l.
"	18/12 '58	11.15	.	N-6-7 "	.	34.02	h.
"	"	17.35	.	N-5-6 "	.	34.53	l.
"	19/12 '58	12.30	.	" "	.	34.32	h.
"	"	18.40	.	" cloudy	.	34.34	l.
"	20/12 '58	13.00	.	N-5 "	.	34.60	h.
"	"	19.10	.	N-5-6 "	.	34.51	l.
"	21/12 '58	14.00	.	" "	.	34.28	h.
"	"	20.15	.	N-5, partly cl.	.	34.70	l.
"	22/12 '58	15.00	.	N-2, cloudy	.	34.46	h.
"	"	21.10	.	" "	.	34.68	l.
"	23/12 '58	15.40	.	NE-2, partly cl.	.	34.46	h.
"	"	22.00	.	E-3-4, cloudy	.	34.38	l.
"	11/11 '59	08.00	.	NE-3-4, partly cl.	.	34.02	l.
"	"	14.15	.	" "	.	33.82	h.
"	12/11 '59	09.00	.	NE-5 "	.	34.05	l.
"	"	15.15	.	" cloudy	.	34.04	h.
"	13/11 '59	10.00	.	NE-3-4, partly cl.	.	33.85	l.
"	"	16.20	.	" "	.	33.95	h.

THE SALINITY AT THE SHORES OF SOUTHWEST ICELAND

21

TIDE

	LOCALITY	DATE	HOUR	AIR TEMP. °C	WEATHER	SEA TEMP. °C	SALINITY %	TIDE
h.	Garðskagi	14/11 '59	10.50	.	calm, partly cl.	.	33.92	l.
l.	"	"	17.00	.	E-2, cloudy	.	33.67	h.
h.	"	15/11 '59	11.45	.	E-3-4, partly cl.	.	33.95	l.
l.	"	"	18.00	.	" "	.	33.70	h.
h.	"	16/11 '59	12.35	.	SE-3-4 "	.	34.03	l.
l.	"	"	18.45	.	" "	.	33.68	h.
l.	"	17./11 '59	13.30	.	NE-2 "	.	34.02	l.
h.	"	"	19.40	.	NE-3-4 "	.	33.99	h.
l.	"	18/11 '59	07.45	.	E-3-4 "	.	34.07	h.
h.	"	"	14.00	.	" "	.	34.04	l.
l.	"	19/11 '59	08.30	.	NE-3-4 "	.	34.07	h.
h.	"	"	14.50	.	NE-2 "	.	34.69	l.
l.	"	20/11 '59	09.30	.	NE-5-6 "	.	34.21	h.
h.	"	"	16.00	.	" "	.	34.09	l.
l.	"	21/11 '59	10.15	.	" cloudy	.	34.25	h.
h.	"	"	16.30	.	" "	.	34.11	l.
l.	"	22/11 '59	10.50	.	NE-2 "	.	34.24	h.
h.	"	"	17.00	.	" "	.	34.06	l.
l.	"	23/11 '59	11.30	.	NE-5-6 "	.	34.16	h.
h.	"	"	17.45	.	" "	.	33.93	l.
l.	"	24/11 '59	12.15	.	NE-3-4 "	.	34.18	h.
h.	"	"	18.30	.	E-3-4 "	.	33.97	l.
l.	"	25/11 '59	13.15	.	NE-5 "	.	34.42	h.
h.	"	"	19.30	.	" "	.	33.54	l.
h.	"	26/11 '59	14.10	.	NE-5-6, partly cl.	.	33.95	h.
l.	"	"	20.20	.	NE-5 "	.	33.56	l.
h.	"	27/11 '59	09.00	.	SE-2, cloudy	.	34.39	l.
l.	"	"	15.15	.	S-2 "	.	34.39	h.
h.	"	28/11 '59	10.00	.	SE-2 "	.	34.03	l.
l.	"	"	16.10	.	SW-2 "	.	34.21	h.
h.	"	29/11 '59	11.00	.	" "	.	34.39	l.
l.	"	"	17.15	.	E-2 "	.	34.42	h.
h.	"	30/11 '59	11.45	.	" partly cl.	.	33.81	l.
l.	"	"	18.00	.	NE-2 "	.	34.41	h.
h.	"	1/12 '59	12.30	.	E-3-4, cloudy	.	34.28	l.
l.	"	"	18.40	.	SE-3-4 "	.	34.35	h.
h.	"	2/12 '59	13.15	.	NE-5 "	.	34.41	l.
l.	"	"	19.20	.	NE-3-4 "	.	32.29	h.
h.	"	3/12 '59	14.00	.	SE-3-4 "	.	34.39	l.
l.	"	"	20.00	.	SW-5-6 "	.	34.32	h.
h.	"	4/12 '59	15.00	.	SW-3-4 "	.	34.34	l.
l.	Reykjanes	4/5 '58	13.15	.	SW-1, partly cl.	.	34.03	l.
h.	"	"	19.30	.	WSW-2 "	.	33.82	h.
l.	"	5/5 '58	14.05	.	NNW "	.	33.75	l.
h.	"	"	20.25	.	" "	.	33.36	h.
l.	"	10/5 '58	12.20	.	SW-1, cloudy	.	33.78	h.
h.	"	"	18.45	.	NE-2 "	.	33.64	l.

LOCALITY	DATE	HOUR	AIR TEMP. °C	WEATHER	SEA TEMP. °C	SALINITY ‰	TIME
Reykjanes	11/5 '58	13.15	.	W-2, cloudy	.	33.84	h.
	"	19.30	.	NW-3 "	.	33.87	l.
	12/5 '58	14.20	.	N-4, partly cl.	.	33.96	h.
	"	20.35	.	N-5 "	.	33.30	l.
	13/5 '58	15.25	.	" "	.	33.50	h.
	"	21.45	.	N-4 "	.	33.71	l.
	14/5 '58	16.14	.	E-3, cloudy	.	33.92	h.
	"	22.35	.	E-2 "	.	33.69	l.
	15/5 '58	16.55	.	N-3, partly cl.	.	34.14	h.
	"	23.15	.	N-2 "	.	34.04	l.
	16/5 '58	17.32	.	E-3, cloudy	.	33.58	h.
	"	23.52	.	E-5 "	.	33.50	l.
	17/5 '58	05.49	.	E-4, partly cl.	.	33.08	h.
	"	12.15	.	E-2 "	.	33.94	l.
	18/5 '58	12.45	.	SW-3, showers	.	33.90	l.
	"	19.05	.	W-2, partly cl.	.	33.71	h.
	19/5 '58	13.20	.	N-2, cloudy	.	34.19	l.
	"	19.40	.	" "	.	33.41	h.
	20/5 '58	13.45	.	N-5 "	.	33.85	l.
	"	20.00	.	N-4 "	.	33.44	h.
	21/5 '58	08.10	.	NNE-5, partly cl.	.	33.25	h.
	"	14.25	.	N-6, cloudy	.	33.90	l.
	22/5 '58	08.44	.	" partly cl.	.	33.48	h.
	"	15.00	.	" cloudy	.	33.86	l.
	23/5 '58	09.28	.	N-5, partly cl.	.	33.92	h.
	"	15.45	.	N-4 "	.	34.28	l.
	24/5 '58	10.21	.	NW-2, cloudy	.	34.64	h.
	"	16.36	.	W-2 "	.	34.65	l.
	25/5 '58	11.20	.	" "	.	34.66	h.
	"	17.35	.	S-3 "	.	34.63	l.
	26/5 '58	12.28	.	S-4 "	.	34.64	h.
	"	18.43	.	E-4 "	.	34.61	l.
	27/5 '58	13.41	.	N-2, partly cl.	.	34.54	h.
	"	20.00	.	N-1 "	.	34.63	l.
	28/5 '58	14.35	.	SE-3, cloudy	.	34.43	h.
	"	20.50	.	SE-4 "	.	33.64	l.
	29/5 '58	15.39	.	" partly cl.	.	34.43	h.
	"	21.55	.	N-2, cloudy	.	33.64	l.
	30/5 '58	16.37	.	N-3, partly cl.	.	34.40	h.
	"	22.52	.	" "	.	33.64	l.
Krísuvík	31/10 '58	14.30	.	SE-3-4, showers	.	32.32	.
	"	15.30	.	SW-3-4, snow	.	34.98	.
	14/11 '58	15.15	.	E-9-10, rain	6.8	33.20	.
	24/11 '58	09.05	.	SW-3-4, showers	.	31.08	.
	"	10.00	.	" cloudy	.	31.28	.
	"	11.00	.	" "	.	31.42	.
	"	12.00	.	" clear	.	31.84	.

THE SALINITY AT THE SHORES OF SOUTHWEST ICELAND

23

TIDE

	LOCALITY	DATE	HOUR	AIR TEMP. °C	WEATHER	SEA TEMP. °C	SALINITY %	TIDE
h.	Krísuvík	24/11 '58	13.00	.	SW-5, cloudy	.	32.20	.
l.	"	"	14.00	.	" "	.	32.53	.
h.	"	"	15.00	.	" "	.	32.92	.
l.	"	"	16.00	.	" "	.	33.22	.
h.	"	"	17.00	.	" drizzle	.	33.52	.
l.	"	"	18.00	.	SW-3-4, clear	.	33.52	.
h.	"	"	19.00	.	SE-3-4 "	.	33.42	.
l.	"	"	20.00	.	E-5, cloudy	.	33.22	.
h.	"	"	21.00	.	" "	.	32.67	.
l.	"	"	22.00	.	N-6-7, rain	.	32.31	.
h.	"	"	23.00	.	" "	.	32.14	.
l.	"	"	24.00	.	" cloudy	.	31.99	.
h.	"	25/11 '58	01.00	.	" "	.	31.82	.
l.	"	"	02.00	.	" rain	.	31.76	.
l.	"	"	03.00	.	E-7-8, rain	.	31.68	.
h.	"	"	04.00	.	" "	.	31.58	.
l.	"	"	05.00	.	E-9-10, rain	.	32.03	.
h.	"	"	06.00	.	" "	.	32.34	.
l.	"	"	07.00	.	" "	.	32.20	.
h.	"	"	08.00	.	SW-3-4, showers	.	32.11	.
h.	"	2/12 '58	15.15	.	SW-6-7 "	7.0	33.33	.
l.	"	9/12 '58	15.30	0.0	E-2, cloudy	5.8	34.28	.
h.	"	16/12 '58	15.30	÷8.0	N-5-6, partly cl.	4.8	33.33	.
l.	"	23/12 '58	11.35	3.6	E-5, cloudy	4.8	33.81	.
h.	"	30/12 '58	11.40	÷0.5	NE-2, partly cl.	4.6	33.63	.
l.	"	6/1 '59	11.40	÷6.0	NE-3-4 "	4.8	34.15	.
h.	"	13/1 '59	12.10	÷8.4	N-2 "	3.8	33.81	.
l.	"	20/1 '59	12.20	÷9.5	" "	3.8	34.42	.
h.	"	27/1 '59	12.05	0.8	N-1, haze	4.6	34.24	.
l.	"	3/2 '59	17.20	9.0	SE-9-10, showers	.	33.74	.
h.	"	10/2 '59	15.45	3.0	SW-9 "	6.0	33.96	.
l.	"	17/2 '59	15.35	7.2	SE-12, rain	6.6	34.85	.
h.	"	23/2 '59	15.30	÷0.5	W-6-7	5.6	34.96	.
l.	"	3/3 '59	17.50	÷0.5	SW-3-4, snow	5.2	34.40	.
h.	"	10/3 '59	15.45	6.0	SE-2, showers	5.0	33.58	.
l.	"	17/3 '59	15.40	4.4	SW-3-4, snow	5.8	34.48	.
l.	"	24/3 '59	15.40	6.8	SW-2, partly cl.	6.8	33.71	.
h.	"	7/4 '59	16.15	2.0	N-3-4, cloudy	6.3	34.81	.
l.	"	14/4 '59	15.20	2.0	NE-10 "	5.0	33.25	.
h.	"	21/4 '59	15.40	7.0	E-1, drizzle	6.4	33.70	.
l.	"	29/4 '59	15.25	4.0	E-3-4, snow	5.8	32.84	.
"	"	5/5 '59	11.15	1.8	N-2, partly cl.	6.5	33.92	.
"	"	"	12.00	.	SW-2 "	6.5	34.41	.
"	"	"	13.00	.	" haze	6.5	33.14	.
"	"	"	14.00	2.5	" "	6.5	.	.
"	"	"	15.00	2.5	SE-2, partly cl.	6.5	33.63	.
"	"	"	16.00	2.5	SW-2 "	6.5	34.40	.

LOCALITY	DATE	HOUR	AIR TEMP. °C	WEATHER	SEA TEMP. °C	SALINITY %	TIDE
Krísuvík	3/5 '59	17.00	2.8	SE-2, haze	6.5	34.36	.
"	"	18.00	2.5	calm "	6.5	34.41	.
"	"	19.00	0.8	E-3-4, cloudy	6.5	34.48	.
"	"	20.00	0.5	" "	6.3	34.50	.
"	"	21.00	-0.2	" "	6.2	34.42	.
"	"	22.00	-0.5	" "	6.2	34.09	.
"	"	23.00	-0.5	E-5	6.0	33.81	.
"	"	24.00	-1.2	" "	5.9	33.86	.
"	6/5 '59	01.00	-1.2	E-6-7	5.8	34.15	.
"	"	02.00	-0.8	E-9-10	5.9	34.48	.
"	"	03.00	-1.5	" "	6.0	34.48	.
"	"	04.00	-1.5	" "	6.0	34.53	.
"	"	05.00	-1.0	" "	6.0	34.55	.
"	"	06.00	-0.5	" "	6.0	34.58	.
"	"	07.00	0.6	" "	6.0	34.48	.
"	"	08.00	1.5	E-12	6.0	34.46	.
"	"	09.00	2.4	" "	6.0	33.95	.
"	"	10.00	3.0	" snow	6.0	33.74	.
"	12/5 '59	15.40	9.4	E-7-8, showers	9.0	28.92	.
"	19/5 '59	15.45	9.2	S-2, fog	10.5	23.50	.
"	25/5 '59	18.50	9.5	SE-2, drizzle	9.2	31.62	.
"	2/6 '59	15.30	8.0	SE-7-8, rain	.	32.47	.
"	9/6 '59	15.30	8.5	N-6-7, cloudy	8.3	33.46	.
"	16/6 '59	15.25	8.3	" "	7.5	35.14	.
"	23/6 '59	16.35	11.0	SE-4, fog	9.5	31.38	.
"	30/6 '59	14.45	10.0	SE-3-4, cloudy	10.6	30.54	.
"	7/7 '59	15.35	12.0	NW-2	10.0	33.36	.
"	14/7 '59	16.40	11.5	SE-2	10.7	32.73	.
"	21/7 '59	15.40	10.8	SE-5, rain	11.0	30.50	.
"	28/7 '59	20.00	10.5	NW-3-4, cloudy	11.3	32.03	.
"	4/8 '59	12.35	11.5	SE-5, rain	11.0	33.20	.
"	11/8 '59	14.40	8.4	N-6-7, cloudy	9.4	34.56	.
"	18/8 '59	19.53	10.0	N-3-4 "	11.0	31.96	.
"	24/8 '59	17.35	12.0	S-2 "	11.0	31.88	.
"	2/9 '59	16.00	12.5	SW-3-4 "	10.6	32.81	.
"	8/9 '59	15.25	9.6	" "	10.2	28.84	.
"	15/9 '59	15.40	10.5	E-3-4, fog	10.2	33.30	.
"	22/9 '59	11.15	8.0	W-2, partly cl.	9.0	34.94	.
"	"	12.00	7.5	NW-2 "	9.0	34.90	.
"	"	13.00	8.4	NW-3-4 "	9.0	34.86	.
"	"	14.00	9.2	" "	9.0	34.80	.
"	"	15.00	9.7	NW-2 "	9.0	34.66	.
"	"	16.00	9.5	" "	9.0	34.70	.
"	"	17.00	7.4	calm	9.0	34.78	.
"	"	18.00	7.4	calm, cloudy	9.0	34.85	.
"	"	19.00	7.4	S-2 "	9.0	34.80	.
"	"	20.00	7.4	SW-3-4 "	8.8	34.80	.

THE SALINITY AT THE SHORES OF SOUTHWEST ICELAND

LOCALITY	DATE	HOUR	AIR TEMP. °C	WEATHER	SEA TEMP. °C	SALINITY %	TIDE
Krísuvík	22/9 '59	21.00	7.8	SW-3-4, cloudy	8.7	34.92	.
"	"	22.00	7.8	" "	8.7	34.89	.
"	"	23.00	7.8	" "	8.7	34.88	.
"	"	24.00	6.1	SW-5, rain	8.7	34.78	.
"	23/9 '59	01.00	5.0	NW-5 "	8.7	34.61	.
"	"	02.00	5.0	" "	8.5	34.36	.
"	"	03.00	5.5	NE-9-10, rain	8.5	34.08	.
"	"	04.00	5.0	E-9-10 "	8.5	33.97	.
"	"	05.00	4.3	" "	8.5	33.96	.
"	"	06.00	4.0	NE-9-10 "	8.5	34.15	.
"	"	07.00	5.0	" "	8.5	34.33	.
"	"	08.00	9.0	SE-9-10 "	8.5	34.40	.
"	"	09.00	9.5	SW-9-10 "	9.0	34.33	.
"	"	10.00	9.3	" "	9.0	34.15	.
"	29/9 '59	17.15	10.5	SE-7, haze	9.5	31.78	.
"	6/10 '59	15.45	10.6	E-10 "	9.2	31.27	.
"	13/10 '59	15.35	9.6	SE-10, rain	9.2	32.56	.
"	20/10 '59	16.00	6.2	" "	8.0	30.60	.
"	27/10 '59	15.30	÷0.5	N-4, partly cl.	7.8	33.34	.
"	3/11 '59	16.10	3.5	SE-10, rain	7.8	34.45	.
Þorlákshöfn	24/2 '57	20.30	÷4.0	calm	3.0	30.27	l.
"	25/2 '57	08.50	÷3.0	"	3.0	28.02	l.
"	"	15.00	÷4.0	E-3-4	3.0	29.62	h.
"	26/2 '57	09.30	÷2.0	"	2.3	26.68	l.
"	"	15.40	÷1.0	"	2.5	28.93	h.
"	27/2 '57	10.00	2.0	SE-3-4	3.2	28.41	l.
"	"	16.00	2.0	"	3.0	26.49	h.
"	28/2 '57	10.25	2.0	calm	3.8	31.62	l.
"	"	16.30	1.0	"	3.5	28.12	h.
"	1/3 '57	11.15	÷1.0	NE-5-6	3.2	27.22	l.
"	"	17.05	÷2.0	"	3.5	32.97	h.
"	2/3 '57	11.40	÷3.0	"	3.0	22.66	l.
"	"	17.35	÷4.0	calm	3.8	34.21	h.
"	3/3 '57	12.05	÷1.0	"	2.8	31.95	l.
"	"	18.20	÷2.0	"	3.6	21.03	h.
"	4/3 '57	12.30	3.0	W-3-4	2.8	21.01	l.
"	5/3 '57	12.50	÷2.0	N-3-4	3.9	31.90	l.
"	"	19.20	÷4.0	"	3.8	33.06	h.
"	6/3 '57	13.05	÷3.0	"	3.1	30.74	l.
"	"	19.30	÷4.0	"	3.9	31.81	h.
"	7/3 '57	14.00	÷5.0	"	2.5	27.25	l.
"	"	20.15	÷6.0	calm	2.7	28.11	h.
"	8/3 '57	08.30	÷5.0	N-3-4	2.2	28.06	h.
"	"	14.50	÷4.0	"	2.5	26.72	l.
"	9/3 '57	09.40	÷2.0	"	2.4	28.24	h.
"	"	16.10	÷1.0	"	3.0	27.18	l.
"	10/3 '57	11.10	÷1.0	"	2.8	31.07	h.

LOCALITY	DATE	HOUR	AIR TEMP. °C	WEATHER	SEA TEMP. °C	SALINITY ‰	TIDE
Þorlákshöfn	10/3 '57	17.40	0.0	E-5-6	3.2	30.41	l.
"	11/3 '57	12.40	1.5	"	3.6	30.45	h.
"		19.15	2.0	"	3.7	25.71	l.
"	12/3 '57	07.40	1.5	E-3-4	3.9	30.74	l.
"		14.12	1.5	"	4.1	29.62	h.
"	13/3 '57	08.40	1.0	"	4.2	23.60	l.
"		15.00	2.0	"	4.1	27.42	h.
"	14/3 '57	09.40	1.5	calm	3.5	22.29	l.
"		15.45	1.0	"	3.6	22.88	h.
"	15/3 '57	10.20	÷1.0	E-3-4	3.4	18.68	l.
"		16.30	1.0	"	3.6	21.35	h.
"	16/3 '57	11.00	1.0	"	4.0	23.15	l.
"		17.05	0.0	"	4.2	26.81	h.
"	17/3 '57	24.00	÷2.0	NE-3-4	3.6	22.88	l.
"	18/3 '57	12.30	2.0	E-3-4	3.9	26.56	l.
"		18.30	1.5	"	3.7	26.45	h.
"	19/3 '57	19.25	÷1.0	"	3.9	26.28	h.
"	20.3 '57	13.45	2.0	NE-5-6	4.1	31.45	l.
"	21/3 '57	08.20	2.0	calm	5.1	34.20	h.
"		14.30	3.0	"	5.5	32.59	l.
"	22/3 '57	09.15	÷1.0	"	4.0	27.79	h.