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## ANNUAL MEETING - 1975

# Procedures for Weather Reporting by Fishing Vessels

by

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At both the 1973 and 1974 Annual Meetings, the Environmental Subcommittee recommended that countries whose vessels fish in the northern subareas urge their vessels to provide weather reports to coastal radio stations, particularly when the vessels are operating in the vicinity of ice.

The 1973 Annual Meeting recommendation states "*that the Commission encourage the provision of at least one weather report per day to coastal marine radio stations from fishing vessels operating in waters off Greenland and Canada when ice is in the vicinity*" (Redbook 1974, Part I, page 122).

At the 1974 Annual Meeting, the Subcommittee noted that there had been no significant increase in reporting from fishing vessels and further recommended "*that the Executive Secretary write to Member Countries drawing their attention to the Commission's request of 1973 that fishing vessels operating off Greenland and Canada be encouraged to provide at least one weather report per day to coastal maritime radio stations when ice is in the vicinity*" (Redbook 1974, pages 72 and 137).

The Secretariat, in consultation with the Chairman of STACRES, considered that a Circular Letter on this matter should contain something more positive than simply drawing attention to the recommendation and decided to investigate the procedures for weather reporting through the Canadian Meteorological Service and the Danish Meteorological Institute.

Canadian Meteorological Service would welcome weather reports from any sources, particularly in areas off Labrador in the winter and spring, when their information is usually very scanty and proposed that the format of the standard SHRED Report might be appropriate for use on fishing vessels. It was indicated that the report must be prepared for transmission to the coastal radio station in a standardized coded format and that no other format is acceptable. The requirement for a pre-coded message obviously means that fishing vessels must have on board the appropriate forms and instructions for preparing the reports for transmission. The format of the SHRED Report and the codes are international and the meteorological offices in the various member countries of ICNAF should be able to supply their fishing vessels with the necessary forms and instructions in their own language. A copy of the Canadian form "Auxiliary Ship's Meteorological Log" together with the coding procedures is at Appendix 1.

The Danish Meteorological Institute has indicated that the procedure for producing weather reports in Greenland exactly follows the SHRED form but the system until now has hardly been used. The instructions for sending messages follow the internationally used rules for radio communication: The message starts with =OBS=, then follows the cable address "METRO ANGMAGSSALIK (when north of 50°N), then "SHRED" followed by the codes for the 9 groups on the form. All of the coastal radio stations in Greenland are able to receive the observations. These are listed in the international directory of radio stations together with their working frequencies. A copy of the Danish form is at Appendix 2.

In the light of the requirements for weather reporting to marine radio stations, the Subcommittee should further consider the matter, particularly in regard to the suitability of fishing vessels to provide the type of report required and also the approach that should be taken by the Secretariat in its contacts with Member Countries so that some positive results might accrue from the recommendation.

METEOROLOGICAL BRANCH DEPARTMENT OF TRANSPORT - CANADA

# AUXILIARY SHIP'S METEOROLOGICAL LOG

VESSEL__________ VOYAGE FROM__________ TO__________ HEIGHT OF BAROMETER (ft.)__________

MASTER__________ PRINCIPAL OBSERVING OFFICER__________ RADIO OFFICER__________

| YEAR 19 | | | | POSITION OF SHIP | | | | | | | WIND | | | WEATHER | | PRESSURE | | | | | | ICE ACCRETION | | | | ICE | | REMARKS | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Month (GMT) | Day of Month (GMT) | Indicator Group | Message Indicator | Latitude (Degrees and Tenths) | Quadrant of Globe | Longitude (Degrees and Tenths, Hundreds Included) | Day of Month (GMT) | Time of Observation (GMT) | Wind Indicator (coded 0-4) | Total Cloud Amount (Eighths of sky covered) | True Direction (00 - 36) | True Speed (Knots) | Visibility (Coded 90-99) | Present (coded 00-99) | Past (coded 0-9) | Barometer as read | Corrections | Sea Level Pressure to nearest Whole mb.<br>09 or 10 | | Indicator (Oblique Stroke) | Air Temperature (Whole °C) | Group Indicator | Cause of Ice Acc. | Thickness of Ice Acc. in CM. | Rate of Ice Acc. | Indicator for Ice Group | In plain language indicate percent coverage and thickness if ship is ice, or distance and true bearing of ice edge if ship outside ice. | It is especially important to record the times of beginning and ending of precipitation of any kind, fog (visibility less than 1100 yards) and thunder. | Indicate whether sent by radio, giving call sign of station and time sent. (GMT) | Initials of officer who made observation |
| | | SHRED | 99 | $L_aL_aL_a$ | $Q_c$ | $L_oL_oL_oL_o$ | YY | GG | $i_w$ | N | dd | ff | VV | ww | W | | | | PP | 0 | TT | 2 | $I_s$ | $E_sE_s$ | $R_s$ | ICE | | | | |
| | | SHRED | 99 | | | | | 00 | | | | | | | | | | | | / | | 2 | | | | ICE | | | | |
| | | SHRED | 99 | | | | | 06 | | | | | | | | | | | | / | | 2 | | | | ICE | | | | |
| | | SHRED | 99 | | | | | 12 | | | | | | | | | | | | / | | 2 | | | | ICE | | | | |
| | | SHRED | 99 | | | | | 18 | | | | | | | | | | | | / | | 2 | | | | ICE | | | | |
| | | SHRED | 99 | | | | | 00 | | | | | | | | | | | | / | | 2 | | | | ICE | | | | |
| | | SHRED | 99 | | | | | 06 | | | | | | | | | | | | / | | 2 | | | | ICE | | | | |
| | | SHRED | 99 | | | | | 12 | | | | | | | | | | | | / | | 2 | | | | ICE | | | | |
| | | SHRED | 99 | | | | | 18 | | | | | | | | | | | | / | | 2 | | | | ICE | | | | |
| | | SHRED | 99 | | | | | 00 | | | | | | | | | | | | / | | 2 | | | | ICE | | | | |
| | | SHRED | 99 | | | | | 06 | | | | | | | | | | | | / | | 2 | | | | ICE | | | | |
| | | SHRED | 99 | | | | | 12 | | | | | | | | | | | | / | | 2 | | | | ICE | | | | |
| | | SHRED | 99 | | | | | 18 | | | | | | | | | | | | / | | 2 | | | | ICE | | | | |
| | | SHRED | 99 | | | | | 00 | | | | | | | | | | | | / | | 2 | | | | ICE | | | | |
| | | SHRED | 99 | | | | | 06 | | | | | | | | | | | | / | | 2 | | | | ICE | | | | |
| | | SHRED | 99 | | | | | 12 | | | | | | | | | | | | / | | 2 | | | | ICE | | | | |
| | | SHRED | 99 | | | | | 18 | | | | | | | | | | | | / | | 2 | | | | ICE | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |

Figures which form the weather message are entered in the columns headed by the code symbols. The shaded columns (1, 2, 17, 18, 19, 29, 30 and 31) indicate that entries in these columns do not form part of the transmitted weather message.
PLEASE RETURN COMPLETED SHEETS OR LOGBOOK TO A CANADIAN PORT METEOROLOGICAL OFFICER OR TO:
THE DIRECTOR, METEOROLOGICAL BRANCH, 315 BLOOR STREET WEST, TORONTO, ONTARIO.

Form 63-9458
Rev. April 1967

F 3

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# AUXILIARY SHIPS' WEATHER OBSERVATIONS

**SHRED** $99L_aL_aL_a$ $Q_cL_oL_oL_oL_o$ $YYGGi_w$ $Nddff$ $VVwwW$ $PP/TT$ $2I_sE_sE_sR_s$

## WHAT IS A WEATHER OBSERVATION?

For "Auxiliary Ships" it is a coded report beginning with the indicator word **SHRED**, followed usually by six groups of five figures each. Basically, the report gives the ship's position, date and time of the observation, cloud amount, wind direction and speed, visibility, present and past weather, pressure, temperature, and if occurring, ice accretion. The international reporting code is shown above, where the symbols represent numbers.

## WHY MAKE WEATHER OBSERVATION?

Weather observations from the oceans are of very great value, for the following reasons:

1. They enable the Weather Services of the world to issue better weather forecasts and storm warnings for shipping.
2. They help to locate hurricanes, typhoons and cyclones, so that ships may avoid such storms.
3. Thus, they contribute to the safety of life at sea and the protection of cargo.
4. They aid fishing operations in many areas.
5. They provide essential information for air-sea rescue operations.
6. They are the basic data for ocean climatology.
7. They supplement weather sattelite research, and are essential in the "weather routing" of ships.

## WHEN TO MAKE A WEATHER OBSERVATION

It is preferred that observations be completed and ready for transmission at the "main standard times" of 0000, 0600, 1200, and 1800 GMT (four times a day, every six hours). An observation should be made and logged, even though it may not be possible to transmit it. Please refer to the publication **THE TRANSMISSION OF WEATHER REPORTS TO COASTAL RADIO STATIONS** for additional procedures for ships carrying only one radio officer.

## WHERE TO MAKE A WEATHER OBSERVATION

A weather observation may be made **anywhere** on the oceans, seas and coastal waters of the world. The fact that you are within sight of a coast does not diminish the requirement for making and logging an observation, even though it may not be possible to transmit it.

## HOW TO MAKE A WEATHER OBSERVATION

A weather observation is made up of fourteen pieces of information (seventeen with ice accretion). We shall give brief instructions on how to observe, code and record each one, in the order in which they occur in the international code. As you read these instructions, please refer to a sheet of the "Auxiliary Ships' Meteorological Log" (Form 63-9458).

The indicator word **SHRED** and the figures **99** in the first group should always be included in the report. They are preprinted on the logsheet. **SHRED** indicates that it is a reduced type of ship's report (**SH**ip's **RED**uced). **99** is an indicator for computer recognition.

## $L_aL_aL_a$ LATITUDE IN DEGREES AND TENTHS

This is always reported in three figures. To change minutes of latitude to tenths of degrees, divide the minutes by 6, disregarding the remainder. Examples:

0° 45′ (N or S) is coded as 007.
34° 05′ (N or S) is coded as 340.

## $Q_c$ QUADRANT OF THE GLOBE

The figure for $Q_c$ shows whether the latitude is north or south, and the longitude east or west. Select the appropriate figure from this table:

| | West Longitude | East Longitude |
|---|---|---|
| North Latitude | 7 | 1 |
| South Latitude | 5 | 3 |

For positions on the equator and on the Greenwich or 180th meridion, either of the two appropriate figures may be used.

## $L_oL_oL_oL_o$ LONGITUDE IN DEGREES AND TENTHS

This is always reported in four figures. To change minutes of longitude to tenths of degrees, divide the minutes by 6, disregarding the remainder. Examples:

0° 16′ (E or W) is coded as 0002.
81° 23′ (E or W) is coded as 0813.
146° 58′ (E or W) is coded as 1469.

## YY DAY OF THE MONTH

The first day of the month is reported as 01, the second day as 02, etc. The day reported is the **GMT day**, which may be different from the day in your local time zone. Note also that the day reported with the 0000 GMT observation is the GMT day which is just beginning, not the GMT day which has just ended.

## GG ACTUAL TIME OF OBSERVATION TO THE NEAREST WHOLE HOUR GMT

Since observations should normally be made at the four main standard times, the code figures 00, 06, 12, and 18 have been preprinted in column 9 of the log.

If the observation is made at a different time, cross out the printed time and enter the code figures for the actual time above it.

Use the actual time at which the barometer was read, for example: 0552 GMT = 06; 1446 GMT = 15; 2356 GMT = 00 (with YY of the new day), not 24.

## $i_w$ WIND INDICATOR

Use code figure 3 if the wind speed is estimated.

Use code figure 4 if the wind speed is obtained from an anemometer.

$i_w$ will normally be coded as 3.

## N FRACTION OF THE SKY COVERED BY CLOUDS OF ALL TYPES

| Code Figs. | Fraction of sky covered | Code Figs. | Fraction of sky covered |
|---|---|---|---|
| 0 | Cloudless | 6 | 6/8 |
| 1 | 1/8 or less but not zero | 7 | 7/8 or more but not 8/8 |
| 2 | 2/8 | 8 | 8/8, sky totally covered |
| 3 | 3/8 | 9 | Sky obscured by dense fog or heavy snow, or amount cannot be estimated. |
| 4 | 4/8 | | |
| 5 | 5/8 | | |

If part of the sky can be seen through a shallow fog layer, treat this part as if it were the whole sky and code N accordingly. At night when the moon is below the horizon, the cloud amount is estimated by noting which stars are visible and which are hidden.

## dd TRUE DIRECTION FROM WHICH THE WIND IS BLOWING, TO THE NEAREST TEN DEGREES.

Estimate **dd** by observing the direction from which the wind-driven waves are coming, or by noting the direction in which streaks of foam lie.

00 = Calm, 01 = 10°T, and so on by ten degree steps right around to 36 = 360°T (North).

Further examples:
05 = 50°T (NE)
09 = 90°T (East)
14 = 140°T (SE)
21 = 210°T
27 = 270°T (West)
32 = 320°T (NW)

## ff

### WIND SPEED IN KNOTS

The beaufort force of the wind is estimated from the appearance of the sea surface, according to the table below. This table is only intended as a guide to show roughly what may be expected on the open sea, remote from land. Factors which must be taken into account are the lag effect between the wind increasing and the sea getting up; and the influence of *'fetch'*, depth, swell, heavy rain and tide effect on the appearance of the sea. Estimation of the wind speed becomes unreliable in shallow water or when close inshore, owing to the tidal effect and the shelter provided by the land. When the Beaufort force has been estimated, it must then be converted to knots. In the coded message, the wind speed must always have two figures, thus 8 knots is coded as 08.

| Code Figs. (Speed in Kts.) | Mean Speed | Beaufort | Description | Appearance of sea if the fetch and duration of the blow have been sufficient to develop the sea fully | Probable ht. of seas in ft. Aver. | Max. |
|---|---|---|---|---|---|---|
| 00 | 00 | 0 | Calm | Sea like a mirror . . . . . . . . . . . . . . . . . . . . . . . . . | – | – |
| 01–03 | 02 | 1 | Light Air | Ripples with the appearance of scales are formed, but without foam crests . . . . . | ¼ | ¼ |
| 04–06 | 05 | 2 | Light Breeze | Small wavelets; crests have a glassy appearance and do not break . . . . . . . . . | ½ | 1 |
| 07–10 | 09 | 3 | Gentle Breeze | Large wavelets; crests begin to break;foam of glassy appearance; perhaps scattered white horses . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2 | 3 |
| 11–16 | 14 | 4 | Modt. Breeze | Small waves, becoming longer; fairly frequent white horses. . . . . . . . . . . | 3½ | 5 |
| 17–21 | 19 | 5 | Fresh Breeze | Moderate waves; many white horses are formed (chance of some spray) . . . . . . | 6 | 8½ |
| 22–27 | 25 | 6 | Strong Breeze | Large waves; white foam crests everywhere (probably some spray) . . . . . . . . | 9½ | 13 |
| 28–33 | 31 | 7 | Near Gale | Sea heaps up and white foam from breaking waves begins to be blown in streaks along the direction of the wind. . . . . . . . . . . . . . . . . . . . . . . . | 13½ | 19 |
| 34–40 | 37 | 8 | Gale | Moderately high waves; edges of crests begin to break into spindrift; foam is blown in well-marked streaks along the direction of the wind . . . . . . . . . . . . . . . | 18 | 25 |
| 41–47 | 44 | 9 | Strong Gale | High waves;dense streaks of foam along wind;crests begin to topple, tumble and roll over; spray may affect visibility . . . . . . . . . . . . . . . . . . . . . . | 23 | 32 |
| 48–55 | 52 | 10 | Storm | Very high waves with long overhanging crests; foam in great patches blown in dense white streaks along wind; sea surface takes a white appearance; tumbling becomes heavy and shock-like; visibility affected. . . . . . . . . . . . . . . . . . . . . . . | 29 | 41 |
| 56–63 | 60 | 11 | Violent Storm | Exceptionally high waves (medium-sized ships may be lost to view behind waves); sea covered with long white patches of foam lying along wind; everywhere edges of crests are blown into froth; visibility affected. . . . . . . . . . . . . . . . . . . . . . | 37 | 52 |
| 64–71 | 68 | 12 | Hurricane | Air is filled with foam and spray; sea completely white with driving spray; visibility very seriously affected. . . . . . . . . . . . . . . . . . . . . . . . . | 45 | – |

The Beaufort force is not used as a code here, but as a means of estimating the actual wind speed. It is permissable for an experienced observer to report a speed interpolated between the average speeds of the Beaufort numbers; e.g. a high force 6 might be reported as **27** knots. For winds **100 – 199** knots, **50** is added to **dd**, and **ff** gives the tens and units digits of the speed; e.g. for a wind from **250°** at **105** knots, **dd = 75** and **ff = 05.**

## VV

### VISIBILITY

Visibility is defined as the greatest distance at which an object of specified characteristics can be seen and identified for what it is in any particular circumstances, or in the case of night observations, could be seen and identified if the general illumination were raised to the normal daylight level.

Estimate the visibility in nautical miles (or yards if very low) and code **VV** according to the following table:

| Code Figs. | Visibility |
|---|---|
| 90 | Less than 50 yards |
| 91 | 50 yards but less than 200 yards |
| 92 | 200 yards but less than ¼ naut. mi. |
| 93 | ¼ naut. mi. but less than ½ naut. mi. |
| 94 | ½ naut. mi. but less than 1 naut. mi. |
| 95 | 1 naut. mi. but less than 2 naut. mi. |
| 96 | 2 naut. mi. but less than 5 naut. mi. |
| 97 | 5 naut. mi, but less than 10 naut. mi. |
| 98 | 10 naut. mi. but less than 25 naut. mi. |
| 99 | 25 naut. mi. or more |

The visibility reported should be consistent with the weather reported by the code figures for **ww** (see next section). The following examples may be helpful:

| Weather | ww code figures | VV code figs. should be: |
|---|---|---|
| Mist | 10 | 94, 95, or 96 |
| Fog | 41 to 49 | 93 or less |
| Tropical rains | 64, 65, 82 | 93 or less |
| Heavy rain | 64, 65, 67, 81, 92 | 94 or 95 |
| Moderate rain | 62, 63, 67, 81, 92 | 96 |
| Slight rain | 60, 61, 66, 80, 91 | 97 or higher |
| Heavy drizzle | 54, 55, 57 | 92 or less |
| Moderate drizzle | 52, 53, 57 | 93 |
| Slight Drizzle | 50, 51, 56 | 94 or higher |
| Heavy snow | 74, 75, 86, 94 | 92 or less |
| Moderate snow | 72, 73, 86, 94 | 93 |
| Slight snow | 70, 71, 85, 93 | 94 or higher |

## WW

### PRESENT WEATHER

This describes a weather type that is occurring at the time of observation, or a weather type that has occurred within the past hour but has since stopped (code figures 20 – 29).

The table below may be divided into two parts: use the section 00 – 49 if there is no precipitation falling at the time of observation; use the section 50 – 99 if there is precipitation falling at the time of observation. Code figures 04, 06, 08, 09, 30 to 39, and 98 rarely or never apply at sea.

Always report the highest code figure which applies. If two or more weather types are occurring at the same time (e.g. rain, fog, and blowing spray) report the rain, as its code figure (one of 60 to 69) is higher than the code figure for fog (one of 41 to 49) or blowing spray (07). **ONE EXCEPTION:** code figure 17 (thunder with no precipitation) has priority over code figures 20 to 49.

Code figure 00 should not normally be reported in daylight observations.

### EXPLANATION OF SOME WORDS USED IN THE TABLE

**Haze** – Very small dry particles, invisible to the naked eye, suspended in the air.

**Mist** – Very small water droplets suspended in the air, reducing the visibility to not less than ½ nautical mile.

**Fog** – Same as mist, except that the visibility is reduced to less than ½ nautical mile.

**Squall** – A sudden increase in wind speed by at least three Beaufort forces (or 16 knots), the speed rising to Force 6 (22 knots) or more, and lasting for at least one minute.

**Drizzle** – Drizzle drops are much smaller than raindrops. They are so small that they appear almost to float in the air, and no appreciable ripples are seen when they strike still water.

**Freezing Precipitation** – Rain or drizzle which falls as liquid but freezes on impact.

**Ice Pellets** – Transparent or translucent pellets of ice, which are spherical or irregular in shape, having a diameter of 5 mm. (o.2 in.) or less.

**Snow Pellets** – White and opaque grains of ice, which are spherical or sometimes conical, having a diameter of 2 – 5 mm.

**Snow Grains** – Very small (less than 1 mm.) white and opaque grains of ice, fairly flat or elongated.

**Shower** – A shower (of rain, snow, ice pellets, snow pellets, or hail) begins and ends rather abruptly and lasts for only a short period. The sky usually brightens after or between showers.

**Intermittent** – Non-showery precipitation which has stopped and started again at least once in the past hour.

**Continuous** – Non-showery precipitation which has continued without a break throughout the past hour, or has started in the past hour and continued without a break.

**Slight, Moderate, Heavy** – These refer to the intensity of precipitation, which is judged according to its effect on the visibility. See the previous section for VV.

### 00–49 NO PRECIPITATION AT SHIP AT TIME OF OBSERVATION

### 00–03 CHANGE OF SKY DURING PAST HOUR

| Code Figs. | |
|---|---|
| 00 | Cloud development not observable |
| 01 | Clouds dissolving or becoming less developed |
| 02 | State of sky on the whole unchanged |
| 03 | Clouds generally forming or developing |

### 04–09 SMOKE, HAZE, SAND or DUST

| | |
|---|---|
| 04 | Visibility reduced oy smoke (not ships' smoke) |
| 05 | Dry haze |
| 06 | Widespread dust suspended in air |
| 07 | Blowing spray at the ship |
| 08 | Dust whirls in past hour *(NOT FOR MARINE USE)* |
| 09 | Dust or sandstorm in sight, or at ship in past hour |

### 10–12 MIST AND SHALLOW FOG

| | | |
|---|---|---|
| 10 | Mist (Visibility ½ naut. mi. or more) | |
| 11 | Shallow fog in patches | *Fog not deeper than 33 feet* |
| 12 | Shallow fog – more or less continuous | |

### 13–16 PHENOMENA WITHIN SIGHT BUT NOT AT SHIP

| | |
|---|---|
| 13 | Lightning visible, no thunder heard |
| 14 | Precipitation in sight, not reaching surface |
| 15 | Precip. beyond 3 naut. miles, reaching surface |
| 16 | Precip. within 3 naut. miles, reaching surface |

### 17–19 THUNDER, SQUALLS, FUNNEL CLOUDS

| | |
|---|---|
| 17 | Thunder at time of observation–no precip. at ship |
| 18 | Squalls (no precip.) in past hour or at time of obsn. |
| 19 | Funnel cloud(s) seen in past hour or at time of obsn. |

### 20–29 PHENOMENA IN PAST HOUR BUT NOT AT TIME OF OBSN.

| | | |
|---|---|---|
| 20 | Drizzle (not freezing) or snow grains | |
| 21 | Rain (not freezing) | *Not falling as showers* |
| 22 | Snow | |
| 23 | Rain and snow mixed, or ice pellets | |
| 24 | Freezing drizzle of freezing rain | |
| 25 | Shower(s) of rain | |
| 26 | Shower(s) of snow, or of rain and snow mixed | |
| 27 | Shower(s) of hail*, or of rain and hail* mixed | |
| 28 | Fog (in past hour but not at time of observation) | |
| 29 | Thunderstorm, with or without precipitation | |

* Includes hail, ice pellets, or snow pellets.

### 30–39 (Not likely to be used in ship reports)

| Slight or Moderate | | Heavy |
|---|---|---|
| 30 | Duststorm or sandstorm, decreasing | 33 |
| 31 | Duststorm or sandstorm, unchanging | 34 |
| 32 | Duststorm or sandstorm, increasing | 35 |
| 36 | Drifting snow, generally low | 37 |
| 38 | Blowing snow, generally high | 39 |

### 40–49 FOG AT THE TIME OF OBSERVATION

| Code Figs. | | Code Figs. |
|---|---|---|
| 40 | Fog at a distance but not at ship during past hour | |
| 41 | Fog in patches | |
| **Sky Visible** | **Visibility less than ½ naut. mi. at time of observation** | **Sky Invisible** |
| 42 | Fog, has become thinner in past hour | 43 |
| 44 | Fog, no change in past hour | 45 |
| 46 | Fog, has begun or thickened in past hour | 47 |
| 48 | Fog, depositing rime | 49 |

### 50–99 PRECIPITATION AT SHIP AT TIME OF OBSERVATION

### 50–59 DRIZZLE

| Intermittent | | Continuous |
|---|---|---|
| 50 | Slight drizzle | 51 |
| 52 | Moderate drizzle | 53 |
| 54 | Heavy drizzle | 55 |
| **Slight** | | **Moderate or Heavy** |
| 56 | Freezing drizzle | 57 |
| 58 | Drizzle and rain mixed | 59 |

### 60–69 RAIN (NOT FALLING AS SHOWERS)

| Intermittent | | Continuous |
|---|---|---|
| 60 | Slight rain | 61 |
| 62 | Moderate rain | 63 |
| 64 | Heavy rain | 65 |
| **Slight** | | **Moderate or Heavy** |
| 66 | Freezing rain | 67 |
| 68 | Rain or drizzle with snow | 69 |

### 70–79 SOLID PRECIPITATIÒN NOT FALLING AS SHOWERS

| Intermittent | | Continuous |
|---|---|---|
| 70 | Slight snow in flakes | 71 |
| 72 | Moderate snow in flakes | 73 |
| 74 | Heavy snow in flakes | 75 |
| 76 | Ice prisms (with or without fog) | |
| 77 | Snow grains (with or without fog) | |
| 78 | Isolated starlike snow crystals (with or without fog) | |
| 79 | Ice pellets | |

### 80–84 RAIN SHOWERS

| | |
|---|---|
| 80 | Slight rain shower |
| 81 | Moderate or heavy rain shower |
| 82 | Violent rain shower |
| 83 | Shower of rain and snow mixed, slight |
| 84 | Shower of rain and snow mixed, moderate or heavy |

### 85–90 SOLID PRECIPITATION IN SHOWERS

| Slight | | Moderate or Heavy |
|---|---|---|
| 85 | Shower of snow | 86 |
| 87 | Shower of snow pellets or ice pellets* | 88 |
| 89 | Shower of hail, no thunder | 90 |

* With or without rain or rain and snow mixed.

### 91–94 THUNDERSTORM DURING THE PAST HOUR BUT NOT AT THE TIME OF OBSERVATION

**Note:** Use 29 if there is no precip. at time of observation

| | | |
|---|---|---|
| 91 | Slight rain | *Thunderstorm in past hour but not now – precip. occurring at time of observation* |
| 92 | Moderate or heavy rain | |
| 93 | Slight snow, or rain and snow mixed, or hail* | |
| 94 | Moderate or heavy snow, or rain and snow mixed, or hail* | |

* Includes hail, ice pellets or snow pellets

### 95–99 THUNDERSTORM AT TIME OF OBSERVATION

| | |
|---|---|
| 95 | Slight or moderate thunderstorm with rain and/or snow, but no hail* |
| 96 | Slight or moderate thunderstorm with hail* |
| 97 | Heavy thunderstorm with rain and/or snow, but no hail* |
| 98 | Thunderstorm with duststorm or sandstorm |
| 99 | Heavy thunderstorm with hail* |

* Includes hail, ice pellets or snow pellets

## W

### PAST WEATHER

Past weather may be described as follows:
If you are reporting a certain weather type (let's call it type X) in **ww**, and weather type X **began** at some time **after** the previous main standard time (00, 06, 12, or 18 GMT), then the code figure for **W** (see table below) will describe the weather you experienced in the interval between the previous main standard time and the time that weather type X began. Use the highest code figure for **W** which applies.
Now if weather type X that you are reporting in **ww** began **at or before** the previous main standard time, and continued **without a break**, then both **ww** and **W** will refer to type X, provided no other weather type with code figure greater than 3 occurred in the interval as well. However, if another such weather type also occurred **along with type X**, then **W** should refer to the **other** type (or. if two other types also occurred, the type having the higher code figure)

**Code Figs.**

| | |
|---|---|
| 0 | Cloud cover ½ or less throughout period. |
| 1 | Changing cloud cover – from more than ½ to less than ½, or vice versa, during period. |
| 2 | Cloud cover more than ½ throughout period. |
| 3 | Sandstorm, duststorm or blowing snow. |
| 4 | Fog or thick haze (Visibility was less than ½ naut. mile) |
| 5 | Drizzle |
| 6 | Rain |
| 7 | Snow, or rain and snow mixed. |
| 8 | Shower(s) |
| 9 | Thunderstorm(s) with or without precipitation. |

## PP

### SEA LEVEL PRESSURE TO THE NEAREST WHOLE MILLIBAR

The last two digits of the pressure, expressed in whole millibars, are used to code **PP**. For example: 987 mb. is coded as **87**; 1026 mb. is coded as **26**. Make sure that the barometer has been adjusted to read the sea level pressure directly. This will be done by a Port Meteorological Officer. Tap the barometer gently with the finger before reading it. Read the barometer to the nearest **whole** millibar.
If your barometer has only an inch scale or a millimetre scale, read it to the nearest hundredth of an inch or the nearest half of a millimetre, and convert the reading to millibars using the conversion tables on the last page of this card.
To the barometer reading in millibars, always apply (by adding or subtracting as necessary) the appropriate scale correction, as obtained from an Aneroid Barometer Correction Card or from the sticker which the Port Meteorological Officer may affix to your barometer.

| | | |
|---|---|---|
| **Example:** | Barometer reading | – 1009 mb. |
| | Correction | – -0.6 mb. |
| | Corrected reading | – 1008.4 mb. |
| | "Rounded off" pressure | – 1008 mb. |

Enter 1008 in columns 19 and 20 of the logsheet, **PP** being coded as **08**.

F

## /

**OBLIQUE STROKE.** This must always be included in the report. It indicates that the tenths of millibars of the pressure are omitted.

## TT

### AIR TEMPERATURE TO THE NEAREST WHOLE DEGREE CELSIUS.

The thermometer should be exposed on the windward side of the ship in a flow of air coming directly off the sea. It should not be affected by heat from bulkheads, vents, etc., and should be protected from direct sunlight, rain and spray.
Read the thermometer to the nearest whole degree Celsius. If your thermometer is calibrated in Fahrenheit degrees, read it to the nearest whole degree F. and convert this reading to degrees C. using the conversion table on this card.
If the temperature is below 0°C, add 50 to the value of the temperature, disregarding the minus sign.

Examples:
23°C – TT is coded 23
8°C – TT is coded 08
0°C – TT is coded 00
−6°C – TT is coded 6+50 = 56
−18°C – TT is coded 18+50 = 68

## $I_S$

### CAUSE OF ICE ACCRETION ON SHIP

| Code Figs. | | Code Figs. | |
|---|---|---|---|
| 1 | Icing from ocean spray | 4 | Icing from rain |
| 2 | Icing from fog | 5 | Icing from spray and rain |
| 3 | Icing from spray and fog | | |

## $E_SE_S$

### THICKNESS OF ICE ACCRETION IN CENTIMETERS

Measure the greatest observed thickness of the ice. Use a centimeter scale if available. If not, measure the thickness to the nearest quarter of of an inch, and code $E_sE_s$ according to the following table:

| Code Figs. (Cm.) | Inches | Code Figs. (CM.) | Inches | Code Figs. (Cm.) | Inches |
|---|---|---|---|---|---|
| 00 | 1/8 or less | 08 | 3 or 3 1/4 | 16 | 6 1/4 |
| 01 | 1/4 or 1/2 | 09 | 3 1/2 | 17 | 6 1/2 or 6 3/4 |
| 02 | 3/4 | 10 | 3 3/4 or 4 | 18 | 7 or 7 1/4 |
| 03 | 1 or 1 1/4 | 11 | 4 1/4 or 4 1/2 | 19 | 7 1/2 |
| 04 | 1 1/2 or 1 3/4 | 12 | 4 3/4 | 20 | 7 3/4 or 8 |
| 05 | 2 | 13 | 5 or 5 1/4 | 21 | 8 1/4 |
| 06 | 2 1/4 or 2 1/2 | 14 | 5 1/2 | 22 | 8 1/2 or 8 3/4 |
| 07 | 2 3/4 | 15 | 5 3/4 or 6 | 23 | 9 or 9 1/4 |

## $R_S$

### RATE OF ICE ACCRETION ON SHIP

| Code Figs. | | Code Figs. | |
|---|---|---|---|
| 0 | Ice not building up | 3 | Ice melting or breaking up slowly |
| 1 | Ice building up slowly | 4 | Ice melting or breaking up rapidly |
| 2 | Ice building up rapidly | | |

### TRANSMISSION OF THE WEATHER REPORT TO A COASTAL RADIO STATION

After the observation has been entered on the logsheet, copy the code groups onto the message form, Form 63–9454, and hand it to the Radio Officer for transmission. Please do this as soon as possible after the observation has been completed.
Full details on transmission procedures, and a complete list of the coastal radio stations authorized to accept ships' weather reports will be found in the Canadian publication entitled **THE TRANSMISSION OF SHIPS' WEATHER REPORTS TO COASTAL RADIO STATIONS.**

### CONVERSION TABLE – FAHRENHEIT TO CELSIUS

| Fahrenheit | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| 90 | 32 | 33 | 33 | 34 | 34 | 35 | 36 | 36 | 37 | 37 |
| 80 | 27 | 27 | 28 | 28 | 29 | 29 | 30 | 31 | 31 | 32 |
| 70 | 21 | 22 | 22 | 23 | 23 | 24 | 24 | 25 | 26 | 26 |
| 60 | 16 | 16 | 17 | 17 | 18 | 18 | 19 | 19 | 20 | 21 |
| 50 | 10 | 11 | 11 | 12 | 12 | 13 | 13 | 14 | 14 | 15 |
| 40 | 4 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 |
| 30 | − 1 | − 1 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 |
| 20 | − 7 | − 6 | − 6 | − 5 | − 4 | − 4 | − 3 | − 3 | − 2 | − 2 |
| 10 | −12 | −12 | −11 | −11 | −10 | − 9 | − 9 | − 8 | − 8 | − 7 |
| 0 | −18 | −17 | −17 | −16 | −16 | −15 | −14 | −14 | −13 | −13 |
| −0 | −18 | −18 | −19 | −19 | −20 | −21 | −21 | −22 | −22 | −23 |

**EXAMPLES:** 80°F = 27°C; 53°F = 12°C; 15°F = -9°C; 7°F = -14°C
-3°F = -19°C.

### CONVERSION TABLE – INCHES OF MERCURY TO MILLIBARS

| Inches | .00 | .01 | .02 | .03 | .04 | .05 | .06 | .07 | .08 | .09 |
|---|---|---|---|---|---|---|---|---|---|---|
| 28.5 | 965.1 | 965.4 | 965.8 | 966.1 | 966.4 | 966.8 | 967.1 | 967.4 | 967.8 | 968.1 |
| 28.6 | 968.5 | 968.8 | 969.1 | 969.5 | 969.8 | 970.2 | 970.5 | 970.8 | 971.2 | 971.5 |
| 28.7 | 971.8 | 972.2 | 972.5 | 972.9 | 973.2 | 973.5 | 973.9 | 974.2 | 974.6 | 974.9 |
| 28.8 | 975.2 | 975.6 | 975.9 | 976.3 | 976.6 | 976.9 | 977.3 | 977.6 | 977.9 | 978.3 |
| 28.9 | 978.6 | 979.0 | 979.3 | 979.6 | 980.0 | 980.3 | 980.7 | 981.0 | 981.3 | 981.7 |
| 29.0 | 982.0 | 982.3 | 982.7 | 983.0 | 983.4 | 983.7 | 984.0 | 984.4 | 984.7 | 985.1 |
| 29.1 | 985.4 | 985.7 | 986.1 | 986.4 | 986.7 | 987.1 | 987.4 | 987.8 | 988.1 | 988.4 |
| 29.2 | 988.8 | 989.1 | 989.5 | 989.8 | 990.1 | 990.5 | 990.8 | 991.2 | 991.5 | 991.8 |
| 29.3 | 992.2 | 992.5 | 992.8 | 993.2 | 993.5 | 993.9 | 994.2 | 994.5 | 994.9 | 995.2 |
| 29.4 | 995.6 | 995.9 | 996.2 | 996.6 | 996.9 | 997.2 | 997.6 | 997.9 | 998.3 | 998.6 |
| 29.5 | 998.9 | 999.3 | 999.6 | 1000.0 | 1000.3 | 1000.6 | 1001.0 | 1001.3 | 1001.6 | 1002.0 |
| 29.6 | 1002.3 | 1002.7 | 1003.0 | 1003.3 | 1003.7 | 1004.0 | 1004.4 | 1004.7 | 1005.0 | 1005.4 |
| 29.7 | 1005.7 | 1006.0 | 1006.4 | 1006.7 | 1007.1 | 1007.4 | 1007.7 | 1008.1 | 1008.4 | 1008.8 |
| 29.8 | 1009.1 | 1009.4 | 1009.8 | 1010.1 | 1010.5 | 1010.8 | 1011.1 | 1011.5 | 1011.8 | 1012.1 |
| 29.9 | 1012.5 | 1012.8 | 1013.2 | 1013.5 | 1013.8 | 1014.2 | 1014.5 | 1014.9 | 1015.2 | 1015.5 |
| 30.0 | 1015.9 | 1016.2 | 1016.5 | 1016.9 | 1017.2 | 1017.6 | 1017.9 | 1018.2 | 1018.6 | 1018.9 |
| 30.1 | 1019.3 | 1019.6 | 1019.9 | 1020.3 | 1020.6 | 1020.9 | 1021.3 | 1021.6 | 1022.0 | 1022.3 |
| 30.2 | 1022.6 | 1023.0 | 1023.3 | 1023.7 | 1024.0 | 1024.3 | 1024.7 | 1025.0 | 1025.4 | 1025.7 |
| 30.3 | 1026.0 | 1026.4 | 1026.7 | 1027.0 | 1027.4 | 1027.7 | 1028.1 | 1028.4 | 1028.7 | 1029.1 |
| 30.4 | 1029.4 | 1029.8 | 1030.1 | 1030.4 | 1030.8 | 1031.1 | 1031.4 | 1031.8 | 1032.1 | 1032.5 |
| 30.5 | 1032.8 | 1033.1 | 1033.5 | 1033.8 | 1034.2 | 1034.5 | 1034.8 | 1035.2 | 1035.5 | 1035.8 |
| 30.6 | 1036.2 | 1036.5 | 1036.9 | 1037.2 | 1037.5 | 1037.9 | 1038.2 | 1038.6 | 1038.9 | 1039.2 |
| 30.7 | 1039.6 | 1039.9 | 1040.3 | 1040.6 | 1040.9 | 1041.3 | 1041.6 | 1041.9 | 1042.3 | 1042.6 |
| 30.8 | 1043.0 | 1043.3 | 1043.6 | 1044.0 | 1044.3 | 1044.7 | 1045.0 | 1045.3 | 1045.7 | 1046.0 |

**EXAMPLE:** To convert **29.66** in. to millibars, locate **29.6** in the extreme left hand column. Then proceed across this row to the column headed **.06**, and read **1004.4**. Therefore **29.66** in. = **1004.4** mb.

### CONVERSION TABLE – MILLIMETERS OF MERCURY TO MILLIBARS

| Millimeters | .0 | .5 | Millimeters | .0 | .5 | Millimeters | .0 | .5 |
|---|---|---|---|---|---|---|---|---|
| 725 | 966.6 | 967.3 | 745 | 993.3 | 993.9 | 765 | 1019.9 | 1020.6 |
| 726 | 967.9 | 968.6 | 746 | 994.6 | 995.3 | 766 | 1021.2 | 1021.9 |
| 727 | 969.3 | 969.9 | 747 | 995.9 | 996.6 | 767 | 1022.6 | 1023.2 |
| 728 | 970.6 | 971.3 | 748 | 997.3 | 997.9 | 768 | 1023.9 | 1024.6 |
| 729 | 971.9 | 972.6 | 749 | 998.6 | 999.3 | 769 | 1025.2 | 1025.9 |
| 730 | 973.3 | 973.9 | 750 | 999.9 | 1000.6 | 770 | 1026.6 | 1027.2 |
| 731 | 974.6 | 975.3 | 751 | 1001.3 | 1001.9 | 771 | 1027.9 | 1028.6 |
| 732 | 975.9 | 976.6 | 752 | 1002.6 | 1003.3 | 772 | 1029.2 | 1029.9 |
| 733 | 977.3 | 977.9 | 753 | 1003.9 | 1004.6 | 773 | 1030.6 | 1031.2 |
| 734 | 978.6 | 979.3 | 754 | 1005.3 | 1005.9 | 774 | 1031.9 | 1032.6 |
| 735 | 979.9 | 980.6 | 755 | 1006.6 | 1007.3 | 775 | 1033.2 | 1033.9 |
| 736 | 981.3 | 981.9 | 756 | 1007.9 | 1008.6 | 776 | 1034.6 | 1035.2 |
| 737 | 982.6 | 983.3 | 757 | 1009.3 | 1009.9 | 777 | 1035.9 | 1036.6 |
| 738 | 983.9 | 984.6 | 758 | 1010.6 | 1011.3 | 778 | 1037.2 | 1037.9 |
| 739 | 985.3 | 985.9 | 759 | 1011.9 | 1012.6 | 779 | 1038.6 | 1039.2 |
| 740 | 986.6 | 987.3 | 760 | 1013.3 | 1013.9 | 780 | 1039.9 | 1040.6 |
| 741 | 987.9 | 988.6 | 761 | 1014.6 | 1015.3 | 781 | 1041.2 | 1041.9 |
| 742 | 989.3 | 989.9 | 762 | 1015.9 | 1016.6 | 782 | 1042.6 | 1043.2 |
| 743 | 990.6 | 991.3 | 763 | 1017.2 | 1017.9 | 783 | 1043.9 | 1044.6 |
| 744 | 991.9 | 992.6 | 764 | 1018.6 | 1019.2 | 784 | 1045.2 | 1045.9 |

Read barometer to nearest half of a millimeter; e.g. 741.0, 768.5, etc.
741.0 mm. = 987.9mb.; 768.5 mm. = 1024.6 mb.

### EXAMPLE OF A CODED OBSERVATION

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Symbolic Form: | SHRED | 99 | $L_aL_aL_a$ | $Q_c$ | $L_oL_oL_oL_o$ | YY | GG | $i_w$ | N | dd | ff | VV | ww | W | PP | / | TT | 2 | $I_s$ | $E_sE_s$ | $R_s$ |
| Coded Form: | SHRED | 99 | 502 | 7 | 1 7 8 4 | 06 | 00 | 3 | 8 | 30 | 32 | 96 | 61 | 2 | 96 | / | 52 | 2 | 5 | 0 2 | 1 |
| | Prefix | Message Indicator | Latitude 50.2°N | N.Lat. W.Long. | Longitude 178.4°N. | 6th day of month (GMT) | 0000 (GMT) | Wind Est. in Knots | 8 eighths of cloud | Wind from 300°T. | Wind speed 32 knots | Visibility 2 to 5 nautical miles | Lgt. cont. rain | Cloudy before rain | Pressure 996 mb. | | Air Temp. −2°C. | Indicator | Icing from spray and rain | Ice ¾ in. (2 cm.) thick | Ice building up slowly |

APPENDIX 2

År:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Måned | Dato | 1. gruppe | | 2. gruppe | | 3. gruppe | | | 4. gruppe | | | 5. gruppe | | | Lufttryk ved havets overflade | Temperatur (i hele og tiendedele grader) | | Temp. diff. | 6. gruppe | | Overisning | | | | | Isforhold | | | | | Telegram sendt til | Telegram exped. kl. – GMT | Bemærkninger |
| | | Kendingstal (meddeles i telegr.) | Breddegrad (i tiendedele grader) | Kvadrant | Længdegrad (i tiendedele grader) | Dag i måneden 2 cifre | Greenwich-tid | Vindindikator | Totale skydække | Vindens retning (retvisende) | Vindens hastighed (knob) | Sigtbarhed | Nuværende vejr | Forudgående vejr | Hele millibar | Luft | Sø | Luft ÷ sø | 2 sidste cifre af lufttryk i hele millibar | Lufttemperatur afrundet til hele grader | Gruppens kendingstal | Isdannelse på skibet | Tykkelse af isdannelsen (cm) | Ændringer i isdannelsen | Is-gruppens kendingsord | Isens art | Besejlingsforhold | Retning til iskanten | Afstand til iskanten | Iskantens orientering | | | |
| 2 cifre | 2 cifre | 99 | $L_aL_aL_a$ | $Q_c$ | $L_oL_oL_oL_o$ | YY | GG | $i_w$ | N | dd | ff | VV | ww | W | | | | | PPX | TT | 2 | $I_s$ | $E_sE_s$ | $R_s$ | ICE | $C_2$ | K | $D_i$ | r | e | | | |
| | | 99 | | | | | 00 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 06 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 12 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 18 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 00 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 06 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 12 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 18 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 00 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 06 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 12 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 18 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 00 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 06 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 12 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 18 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 00 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 06 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 12 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 18 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 00 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 06 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 12 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 18 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 00 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 06 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 12 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| | | 99 | | | | | 18 | 3 | | | | | | | | | | | X | | 2 | | | | ICE | | | | | | | | |
| Telegram: SHRED | | 1. gruppe | | 2. gruppe | | 3. gruppe | | | 4. gruppe | | | 5. gruppe | | | | | | | 6. gruppe | | Tillægsgruppe | | | | Tillægsgruppe | | | | | | | | |

Husk x-et i 6. gruppe!

Læs vejledningen

F 8