

# Isle of Man Ship Registry Technical Advisory Notice



## Meteorological Reporting for Ships

Ref. TAN 003-25  
Issued: 31/03/2025

### **1. Introduction**

1.1 SOLAS Chapter V Regulation 5.1 requires flag states to encourage the collection of weather data by ships at sea in order to assist meteorological services with forecasting. The Ship Registry aims to encourage Companies to involve as many of their ships as practicable in the making and reporting of weather observations, by providing information on the 'Voluntary Observing Ships Scheme' (VOS Scheme) and how to enrol in this.

**1.2 The Ship Registry kindly requests that any vessels that subsequently enrol in the VOS Scheme for the first time notify [marine.survey@gov.im](mailto:marine.survey@gov.im) so that we may keep track of the number of vessels in the scheme. Vessels already enrolled in the scheme at the date of this notice, need not contact us as we already have a record of this.**

### **2. Application**

2.1 This notice applies to all ships registered in the Isle of Man on all voyages. Whilst the collection of meteorological data through participation in the VOS Scheme is highly encouraged, it remains a voluntary programme for ships, and there is no legal requirement to undertake the actions set out in this notice.

### **3. Voluntary Observing Ships Scheme**

3.1 The VOS Scheme is an international program established by the World Meteorological Organisation (WMO) where ships around the world are recruited by National Meteorological Services (NMS) to take and transmit meteorological observations. For Isle of Man Ships, the relevant NMS is the United Kingdom Met Office, although Manx Ships are free to register with another NMS should they wish (see paragraph 3.8 for more information).

3.2 Currently, the contributions of VOS meteorological reports to operational meteorology, marine meteorological services, weather routing services, and global climate studies are considered to be unique and irreplaceable. Over the past few decades, the growing recognition of the oceans' role in the global climate system has highlighted the importance of marine meteorological and oceanographic observing systems even more.

3.3 One of the continuing major problems facing meteorology and oceanography is the scarcity of data from vast areas of the world's oceans (so-called data-sparse areas, especially the polar regions) in support of basic weather forecasting, the provision of marine meteorological and oceanographic services and climate analysis and research.

3.4 While meteorological satellites help significantly to overcome these problems, data from conventional platforms (in particular ship-based data) will remain essential for the foreseeable future, to provide ground-truthing for the satellite observations, and to provide important information that satellites cannot easily observe (notably atmospheric pressure and sub-surface ocean measurements). In addition, the VOS provides an essential contribution to the data input for the numerical weather prediction (NWP) models, which are the basis of most present-day forecasts and warnings, and provide real-time reports which can be used immediately in services for the ships and seafarers.



3.5 As might be expected, real-time reports to the VOS are heavily concentrated along the World's major shipping routes, primarily in the North Atlantic and North Pacific. The chart in Appendix 1 shows details of the geographical distribution of ships' weather reports for a sample year. The most striking feature is the large data-void areas in all southern hemisphere oceans and the polar regions. While this situation certainly reflects the relatively small numbers of ships sailing in these waters, it also makes it more essential that ships sailing in these areas actively participate in the VOS, thus contributing to the global observing programme and the consequent enhancement of the forecast and warning services to the mariner.

3.6 Ships which enrol in the VOS can send observation data through email. Observations are typically made and transmitted every three to six hours.

3.7 Additionally, the calibrated marine meteorological instruments that are required to undertake weather observing at sea are supplied free of charge to the ship by the National Meteorological Services.

3.8 For more information on joining the VOS, please see the [VOS Website](#). Please note that acceptance into the VOS is at the discretion of the NMS and acceptance into the scheme will depend on the resources and finance available to the NMS. In some cases, it will be necessary for an application to be refused due resource limitations.

#### **4. Extreme Weather Conditions**

4.1 When in the vicinity of a tropical cyclone, or of a suspected tropical cyclone, ships enrolled in the VOS are encouraged to take and transmit their observations at more frequent intervals whenever practicable, taking account of navigational preoccupations of ships' officers during storm conditions.

4.2 Masters of all vessels, irrespective of whether they are enrolled in the VOS are encouraged to inform ships in the vicinity and also shore stations whenever they experience a wind speed of 50 knots or more (force 10 on the Beaufort scale).

4.3 In addition to paragraph 4.2, SOLAS V/31 requires mandatory reporting of navigational dangers, including dangerous ice, a dangerous derelict, or any other direct danger to navigation, a tropical storm, or sub-freezing air temperatures associated with gale force winds causing severe ice accretion on superstructures, or winds of force 10 or above on the Beaufort scale for which no storm warning has been received. The Master must communicate such information by all means at his disposal to ships in the vicinity, and also to the competent authorities.

#### **5. Further Reading**

For further information, please see:

- [MSC.1/Circ.1293/Rev.1](#) – Participation in the WMO Voluntary Observing Ships Scheme
- [WMO-No. 588](#): Manual on Marine Meteorological Services

*Please note - The Isle of Man Ship Registry cannot give legal advice. Where this document provides guidance on the law it should not be regarded as definitive. The way the law applies to any particular case can vary according to circumstances - for example, from vessel to vessel. You should consider seeking independent legal advice if you are unsure of your own legal position.*



## **Appendix 1 – VOS Scheme Data for Sample Year (2016)**

