TurboWin Ver. 5.0 for Windows

User's Manual

Japan Meteorological Agency

April 2016

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About the manual

This manual outlines installation and operation of the free TurboWin Ver. 5.0 for Windows program developed by the Royal Netherlands Meteorological Institute (KNMI).

The information provided is valid for the latest version (5.0, released in November 2011) as of April 2016. Contact JMA's Marine Division (see the back of the manual) for information on software updates.

1. Introduction

Marine meteorological observation is indispensable in the provision of weather warnings/information and in monitoring/research relating to global warming and other aspects of climate change. In this context, the Japan Meteorological Agency (JMA) appreciates the efforts made by ships' crews to submit marine meteorological observation data.

TurboWin ver. 5.0 for Windows (referred to here as TurboWin) is a free program developed by the Royal Netherlands Meteorological Institute (KNMI) in conjunction with the European Meteorological Services Network (EUMETNET) to help observers encode weather reports and marine meteorological logbooks easily and accurately. It is endorsed by the World Meteorological Organization (WMO) and used on voluntary observing ships in many countries.

Observation data are automatically saved in a designated folder with specified weather report/marine meteorological logbook formats for easy dispatch to JMA as follows:

- Weather reports are ready for transmission via Inmarsat. Before being sent, files need to be copied to the Inmarsat terminal.
- Marine meteorological logbooks can be sent by email or regular mail (on a floppy disk or CD-R).

Requirements

OS: Microsoft® Windows® XP/Vista/7/8.1/10
Disk space: 70 MB of free drive space for installation

2. Installation and Settings

2.1 Installation

TurboWin can be installed using the CD-ROM distributed by JMA or files downloaded from KNMI's web page at http://projects.knmi.nl/turbowin/download.html (**TurboWin V5.0** link, **turbowin50.zip** (340 MB)).

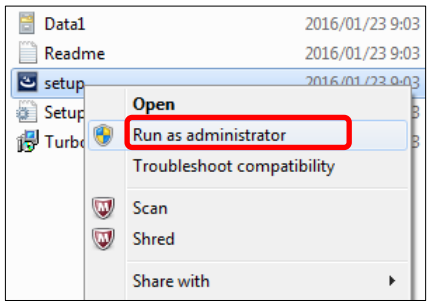
Administrator authorization is needed to install TurboWin.

Note: If TurboWin is being re-installed, any old versions must be uninstalled first (see 2.3).

(1) Start the installation program.

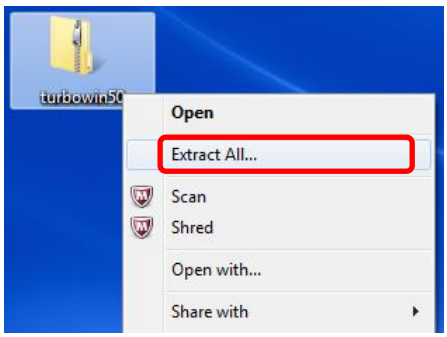
CD-ROM installation

Insert the CD-ROM into the drive and open the **Turbowin50** folder in Windows Explorer. Right-click **setup.exe** (icon:) and select **Run as administrator** from the menu.

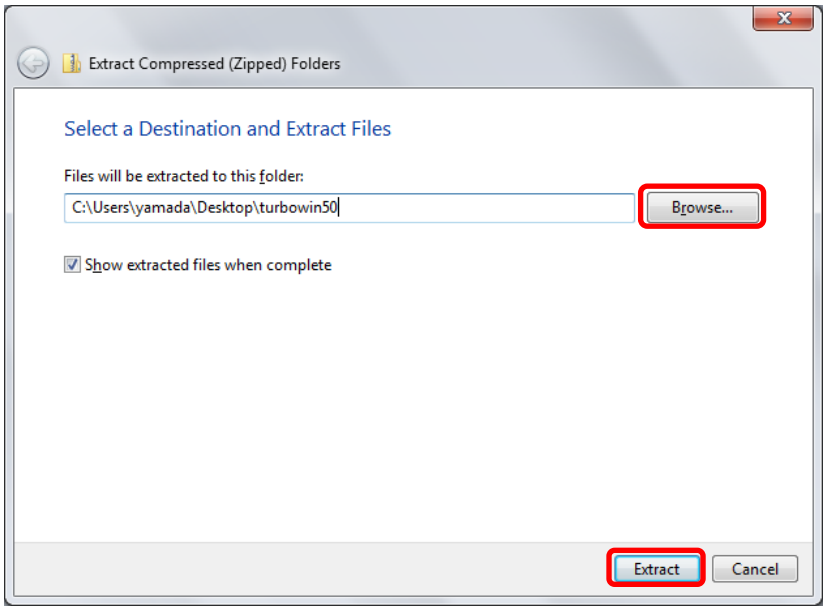


Installation using downloaded files

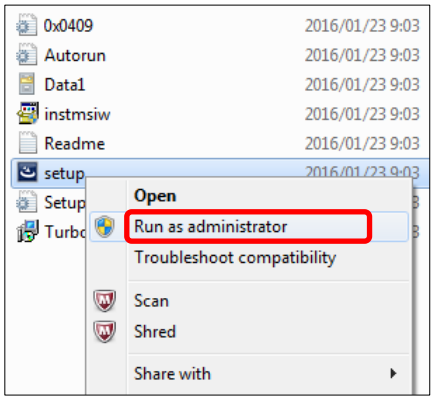
(i) Right-click the **turbowin50.zip** file and select **Extract All** from the menu.



(ii) Click **Browse** to specify the destination folder for extraction, then click **Extract**.



(iii) Right-click **setup.exe** (icon:) in the uncompressed folder and select **Run as administrator** from the menu.



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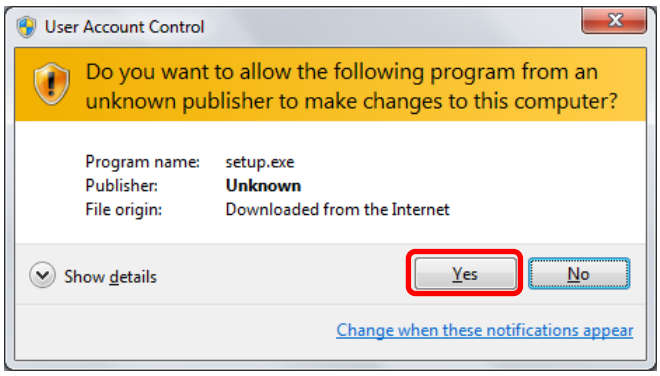
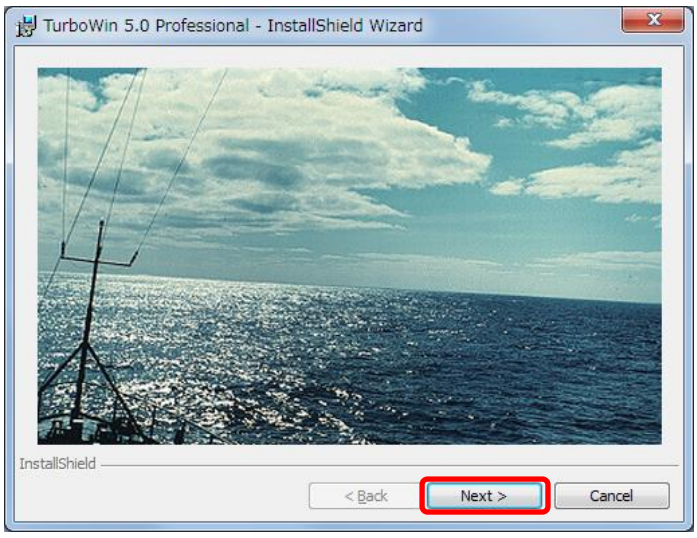
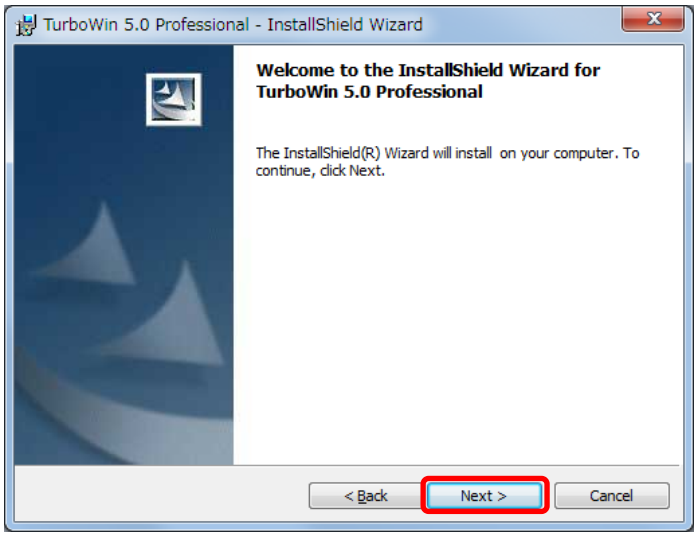
(2) Click **Yes**.



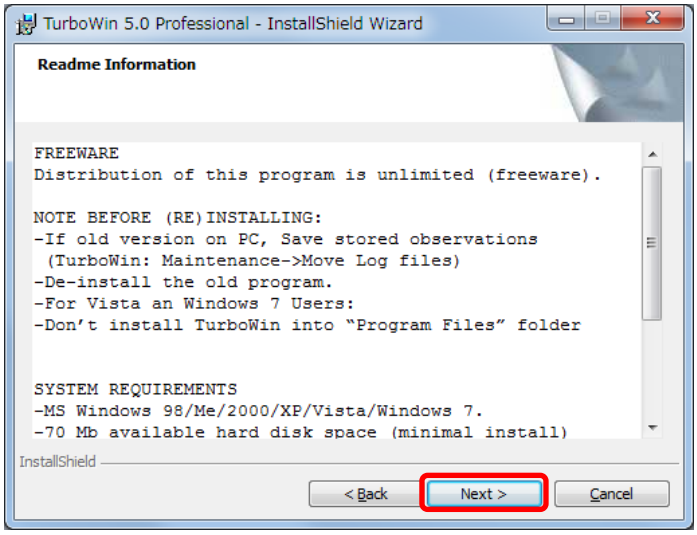
(3) Click **Next**.



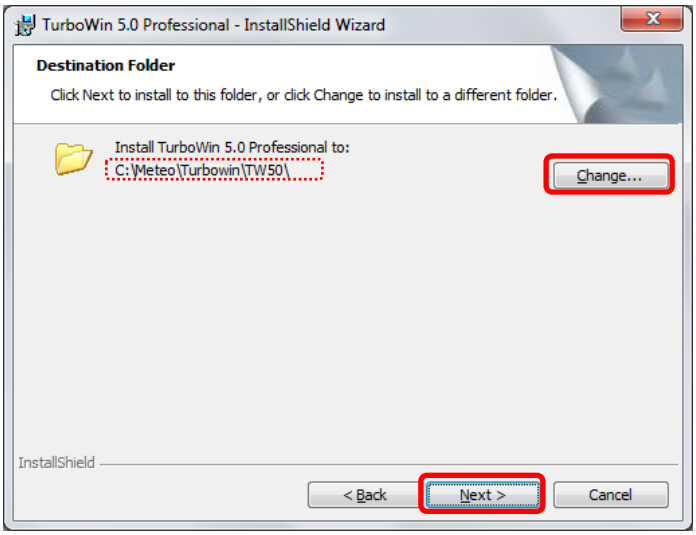
(4) Click **Next**.



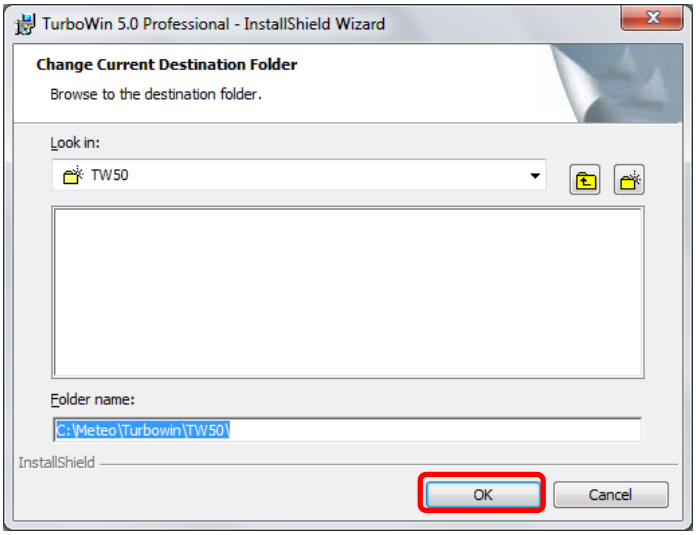
(5) Click **Next**.



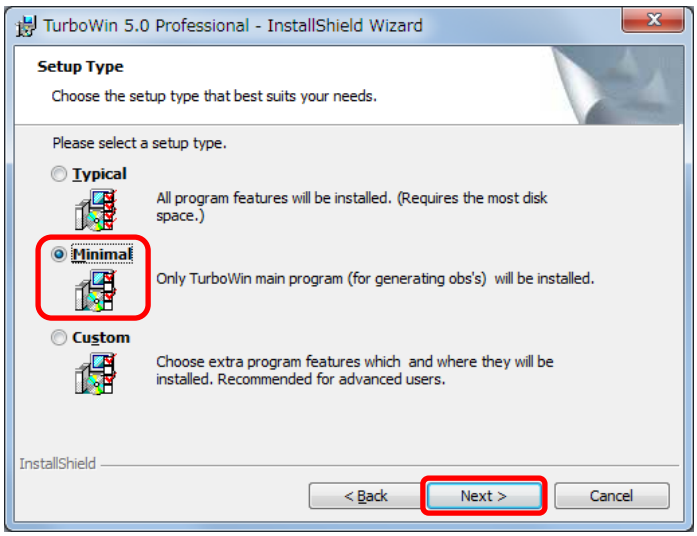
(6) The destination folder for TurboWin installation will be shown in a dashed frame.
To change the folder, click **Change**; otherwise, click **Next** and move to (8).
C(or D):\Meteo\Turbowin\TW50 should be indicated by default.



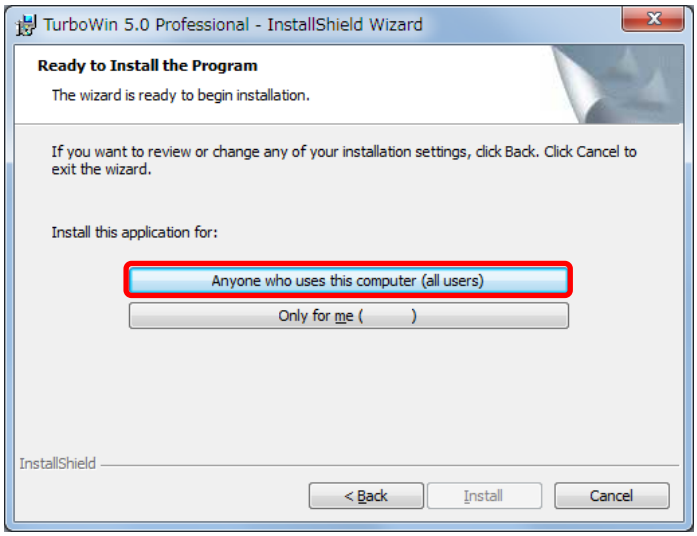
(7) Select the destination folder for TurboWin installation and click **OK**.



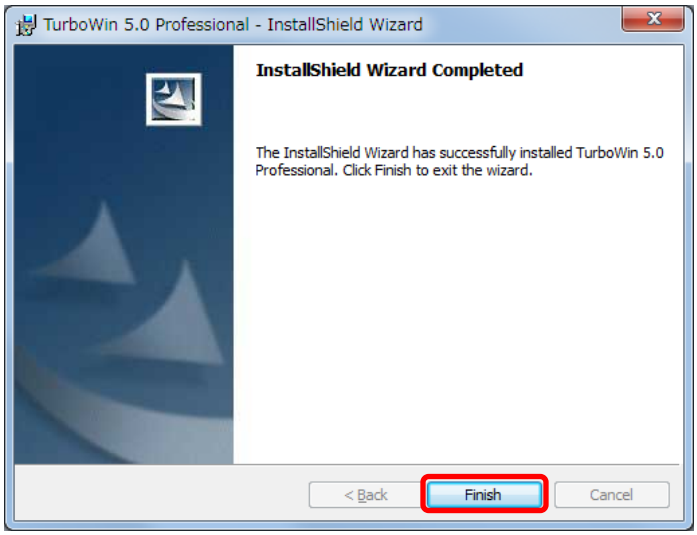
(8) Select **Minimal** and click **Next**.



(9) Click **Anyone who uses this computer (all users)**.



(10) The dialog box shown below will appear when installation is finished.
Click **Finish** and eject the CD-ROM if it was used.



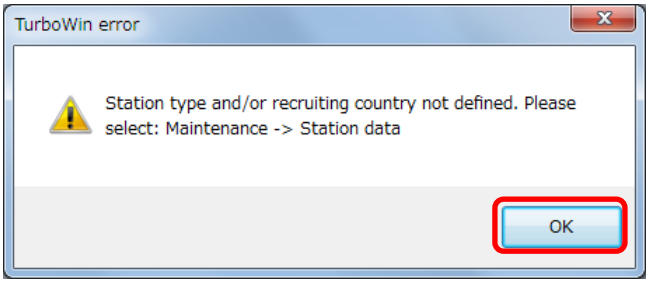
2.2 Initial Settings

Fixed data (e.g., the ship name) must be defined before observation data can be input.

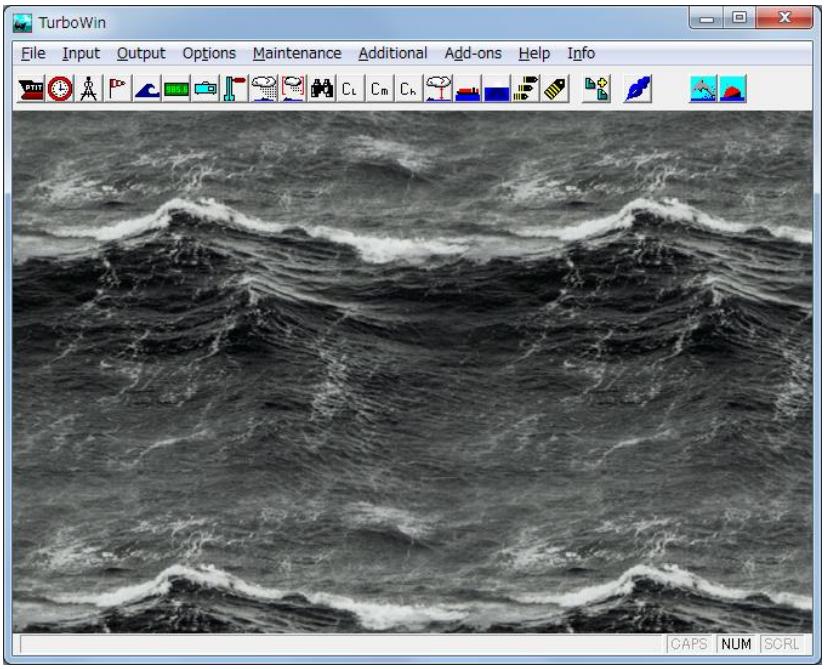
(1) A shortcut icon will appear on the desktop after installation. Double-click the icon to run TurboWin.

TurboWin can also be run from the Windows Start menu. Click the Start button and select **All Programs** > **Meteo** > **TurboWin 5.0**.

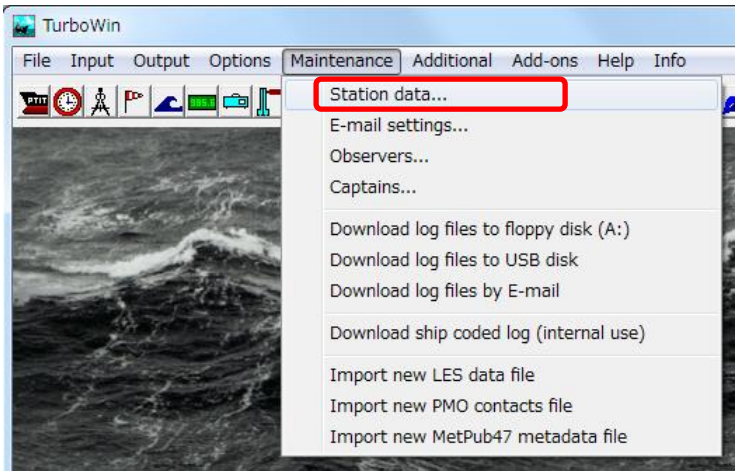
(2) The dialog box shown below will appear if fixed data have not been defined. Click **OK**.



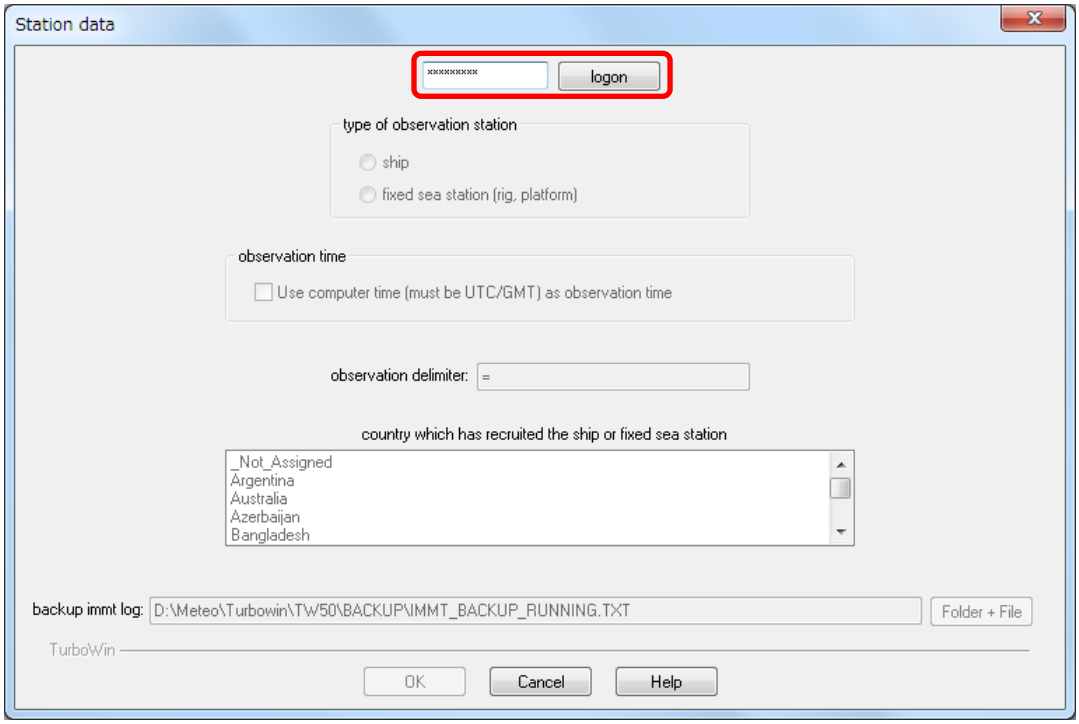
(3) The TurboWin default window will appear.



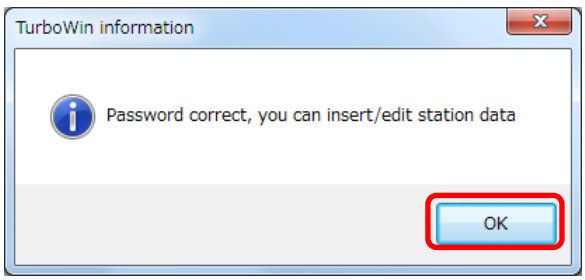
(4) Click **Maintenance** in the menu bar and select **Station data**.



(5) Input the password and click **logon** (contact a JMA staff member for the password).



(6) The dialog box shown below will appear if the password is correct. Click **OK.**



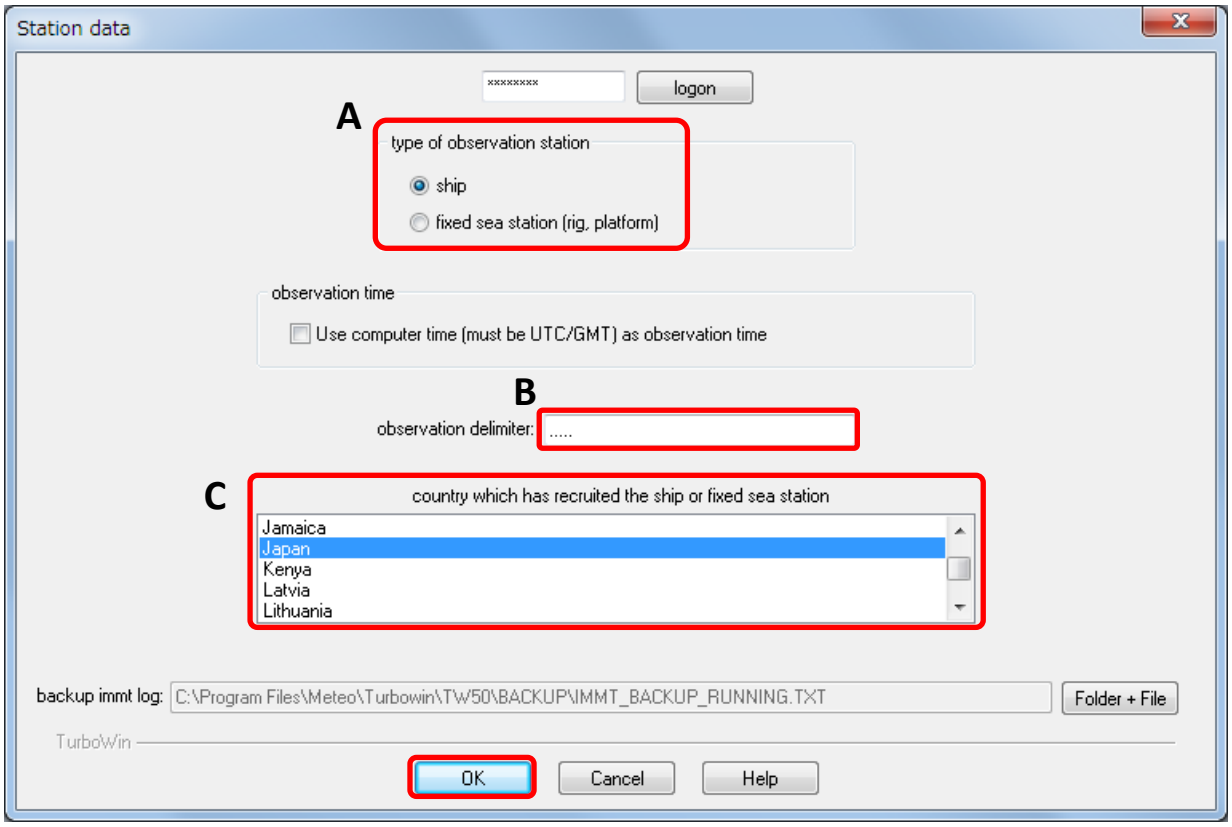
(7) Input the data in A–C below and click **OK**.

A Select **ship**.

B Specify the delimiter to be used in weather reports.

- Input "**.....**" (five periods) for weather reports to be sent via Inmarsat-B.
- Leave the field blank for weather reports to be sent via Inmarsat-C.

C Select **Japan** to indicate that the ship is registered as a VOS by JMA.



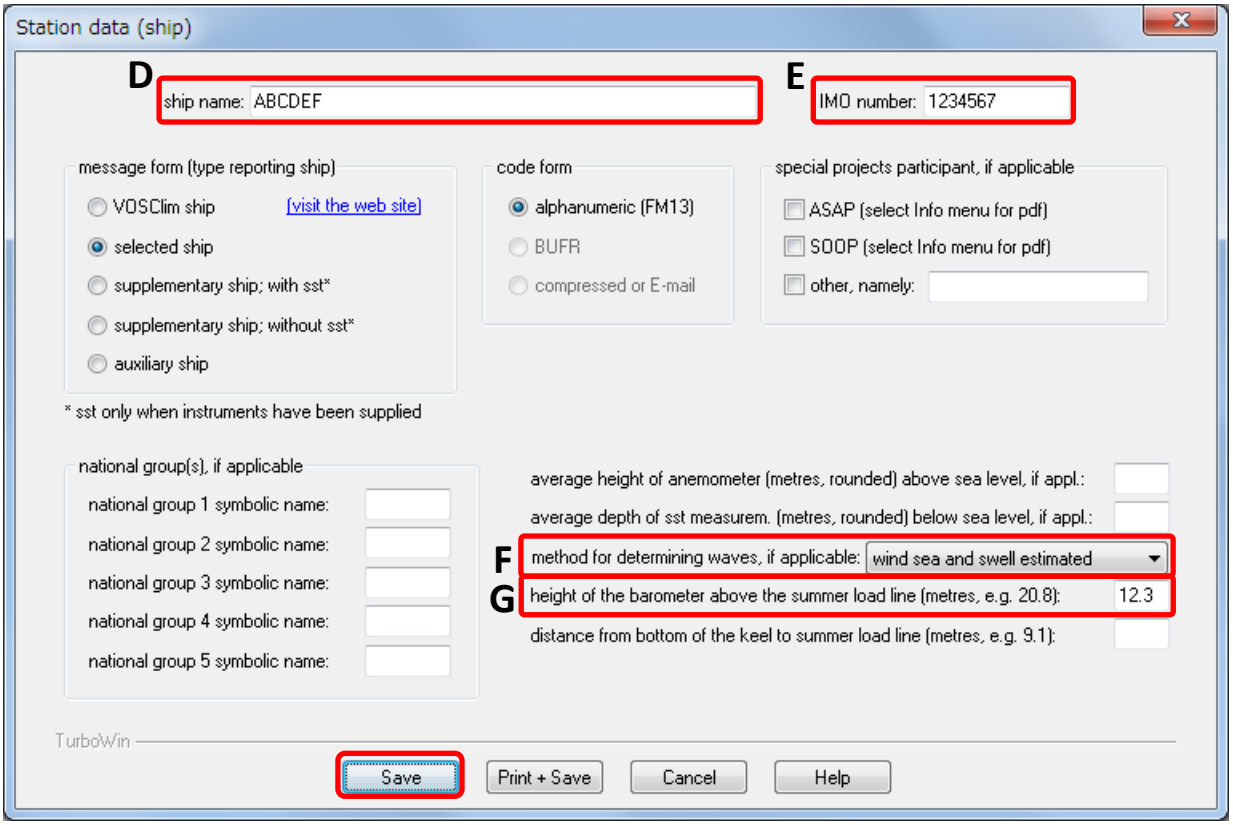
(8) Input the data in D–G below and click **Save**.

D Ship name

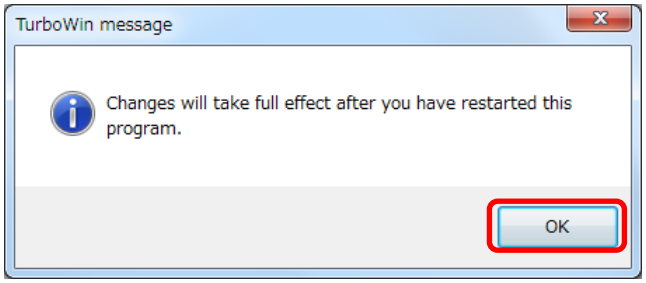
E IMO number

F Method of wave determination

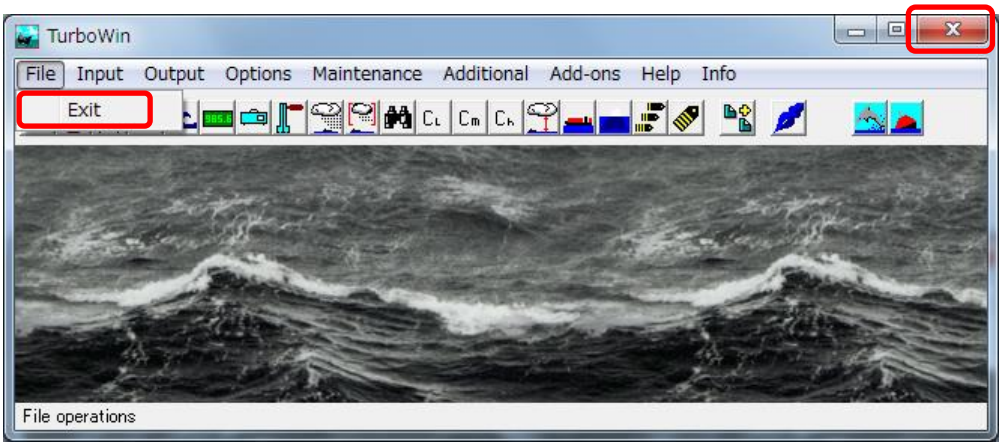
G Height of barometer above summer load line (unit: 0.1 m)



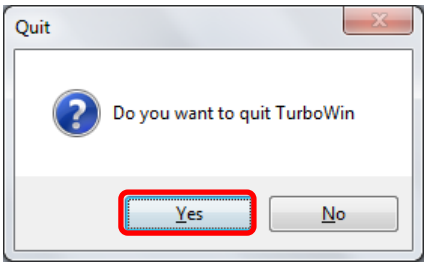
(9) The dialog box shown below will appear. Click **OK** to finish setting input.



(10) To exit TurboWin, click the **x** button in the upper-right corner of the default window or click **File** in the menu bar and select **Exit**.



(11) Click **Yes**.



2.3 Uninstallation

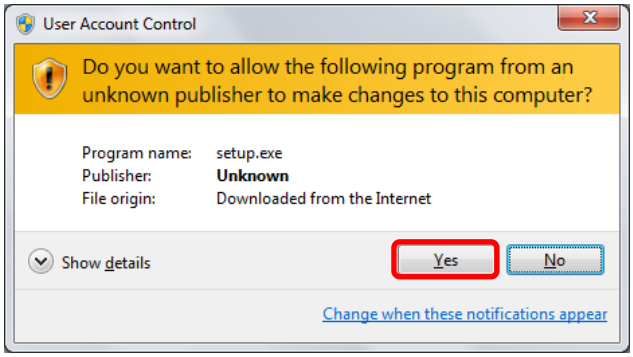
The CD-ROM distributed by JMA is needed to uninstall TurboWin via the method described here. If it is not available, see p. 14 for instructions on how to uninstall via the Windows Control Panel.

Administrator authorization is needed to uninstall TurboWin.

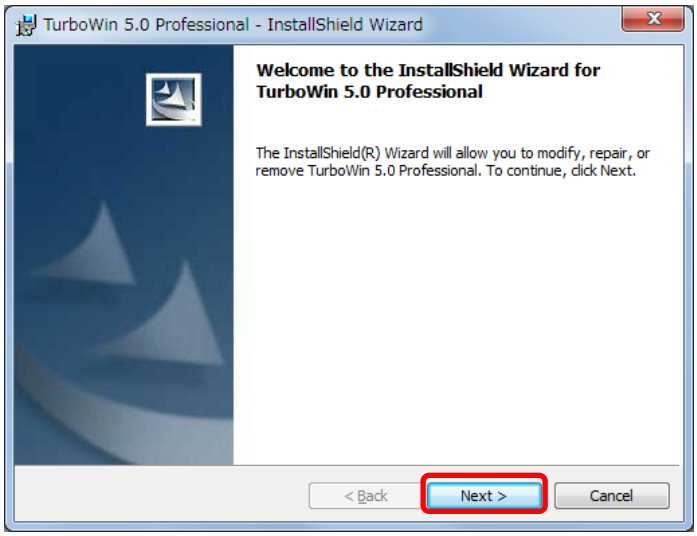
Note: Observation data stored on the PC will be deleted upon uninstallation.

(1) Insert the CD-ROM into the drive and open the **Turbowin50** folder in Windows Explorer. Right-click **setup.exe** (icon:) and select **Run as administrator** from the menu.

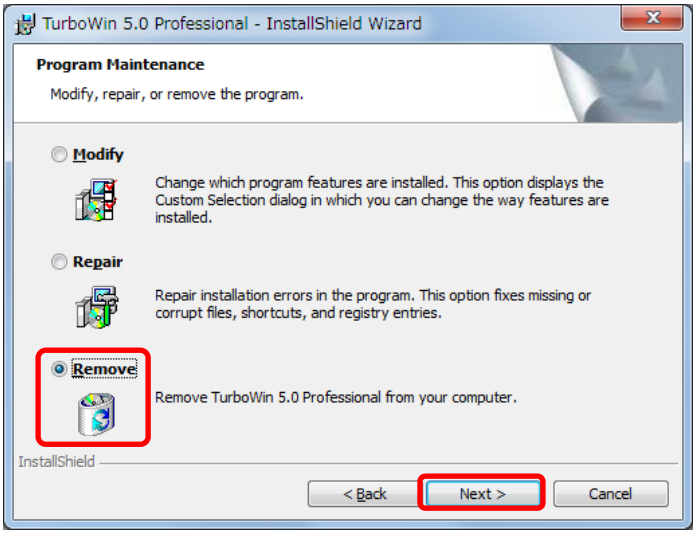
(2) Click **Yes**.



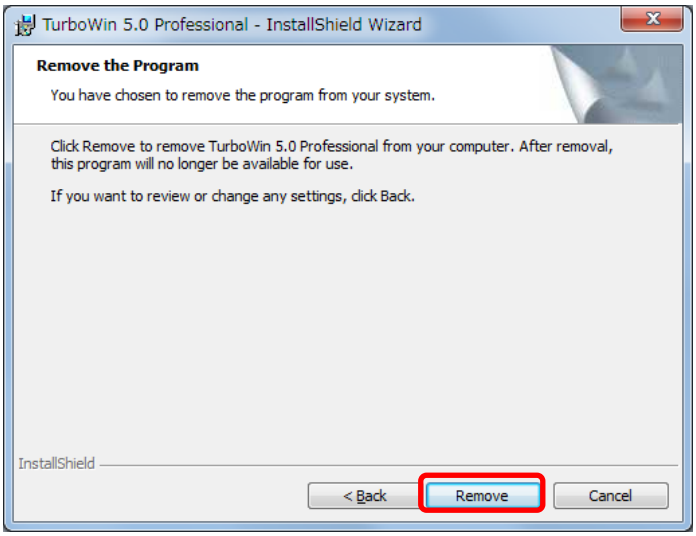
(3) Click **Next**.



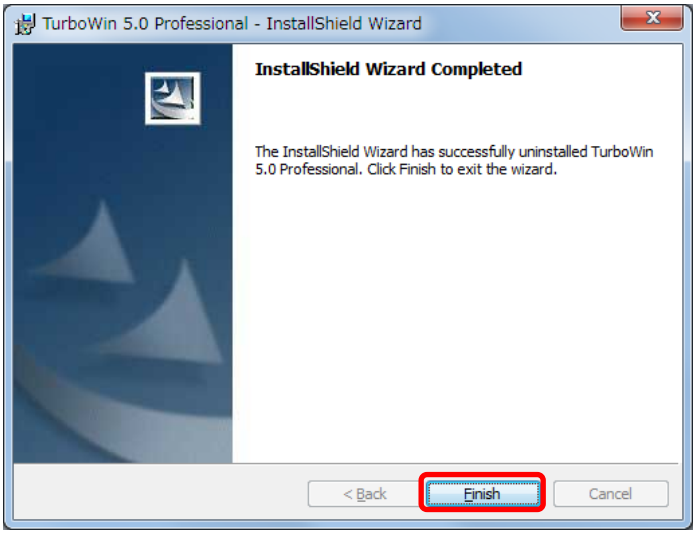
(4) Select **Remove** and click **Next**.



(5) Click **Remove**.



(6) TurboWin will be removed. Click **Finish** and eject the CD-ROM.

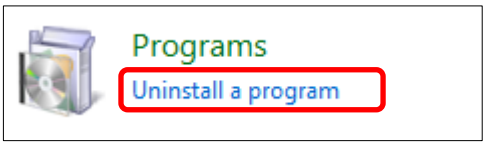


Uninstallation via the Control Panel

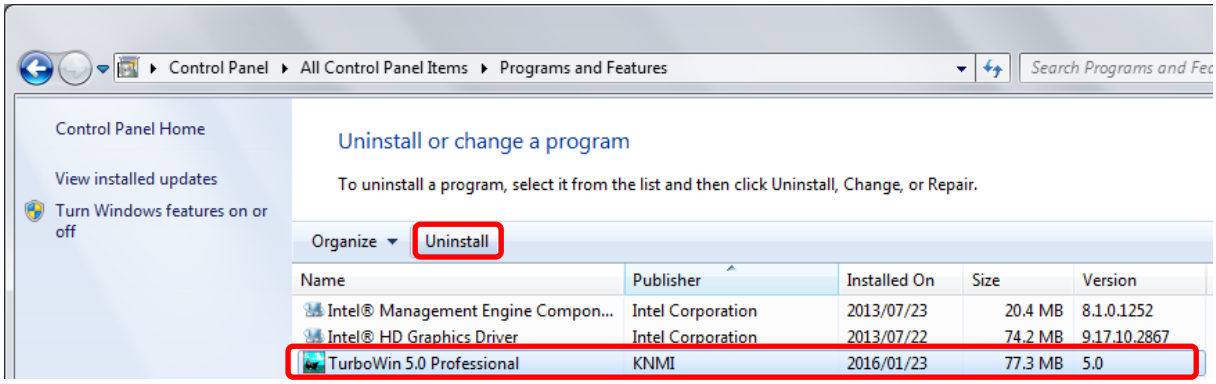
(1) Click the Start button in Windows to show the Start menu and select **Control Panel**.

(2) Click **Uninstall a program**.

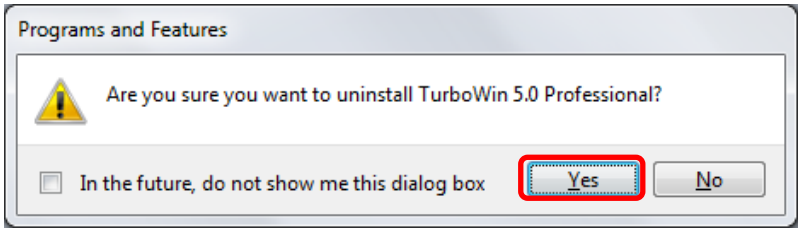
If the Control Panel is shown in icon view, click **Programs and Features**.



(3) A list of installed programs will appear. Select **TurboWin 5.0 Professional** and click **Uninstall**.



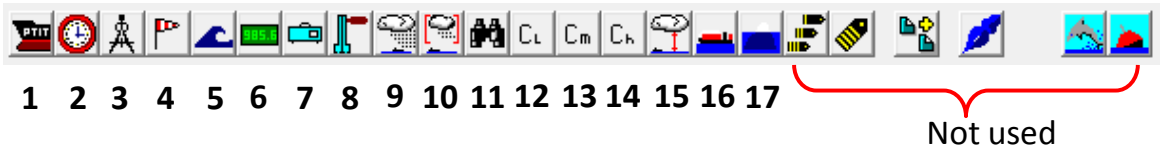
(4) Click **Yes** to remove TurboWin.



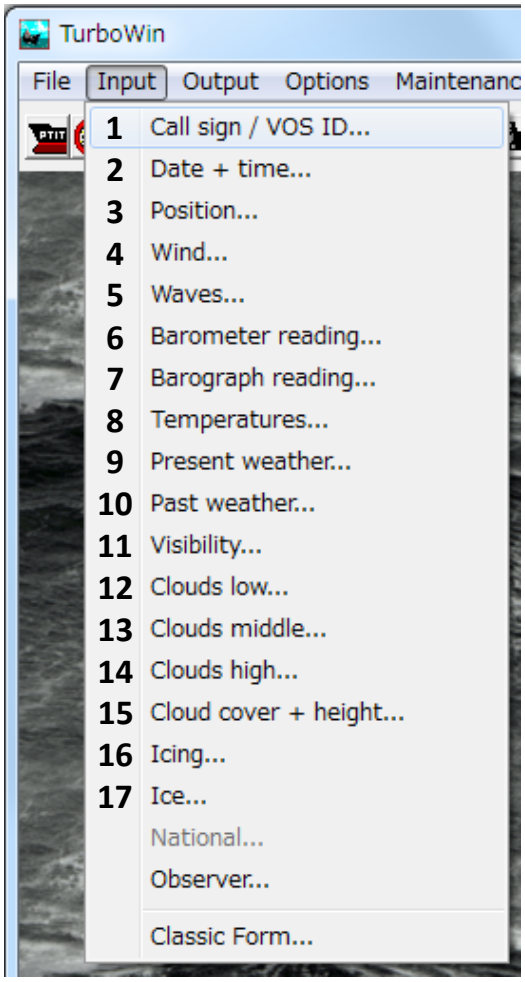
3. Input of Observation Data

Observation data are entered by element in turn. Click the buttons in the toolbar or select elements from **Input** in the menu bar. A dialog box for data input will appear.

Tool bar



Input via the menu bar

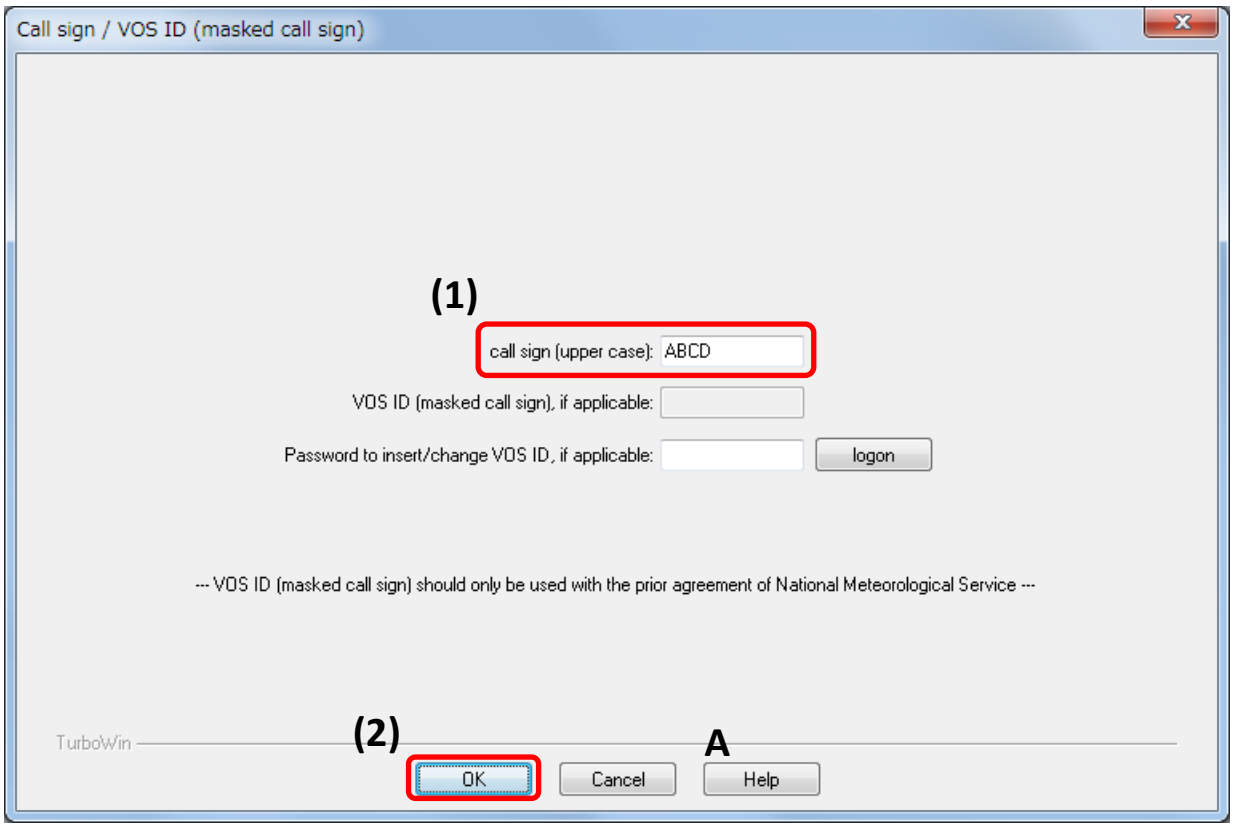


Elements:

1. Call sign
2. Date and time
3. Position, course and speed
4. Wind speed and direction
5. Wind waves and swell
6. Barometer reading
7. Barograph reading
8. Air, wet-bulb and seawater temperatures
9. Present weather
10. Past weather
11. Visibility
12. Low cloud type
13. Middle cloud type
14. High cloud type
15. Cloud amount and height
16. Ice accretion
17. Ice

3.1 Call Sign

Click  in the toolbar or select **Call sign / VOS ID** from **Input** in the menu bar.



(1) Input the call sign in upper-case characters (e.g., **JGQH**).

(2) Click **OK**.

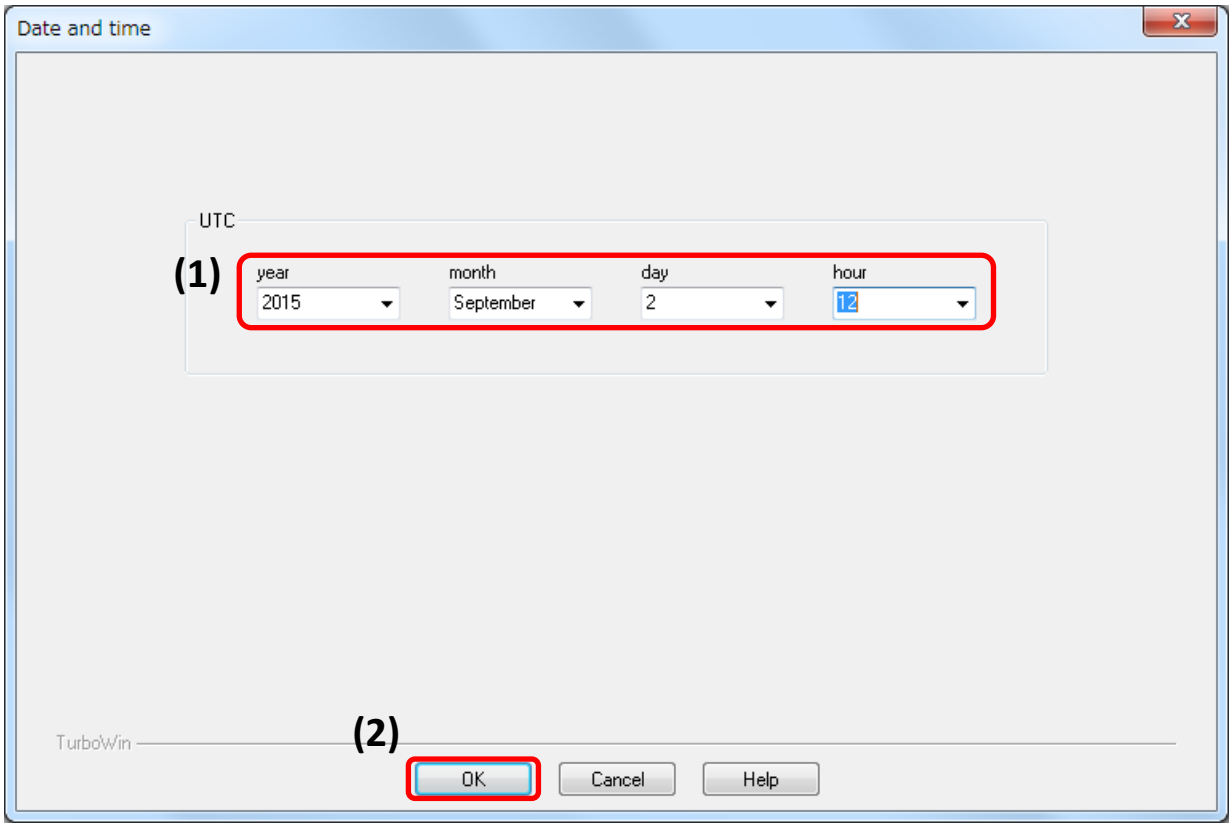
Once the call sign is entered, it will automatically appear in future usage.

Help

Extensive help can be obtained by clicking **Help** (A in the figure) in each dialog box or selecting individual elements from **Help** in the menu bar.

3.2 Date and Time of Observation

Click  in the toolbar or select **Date + time** from **Input** in the menu bar.

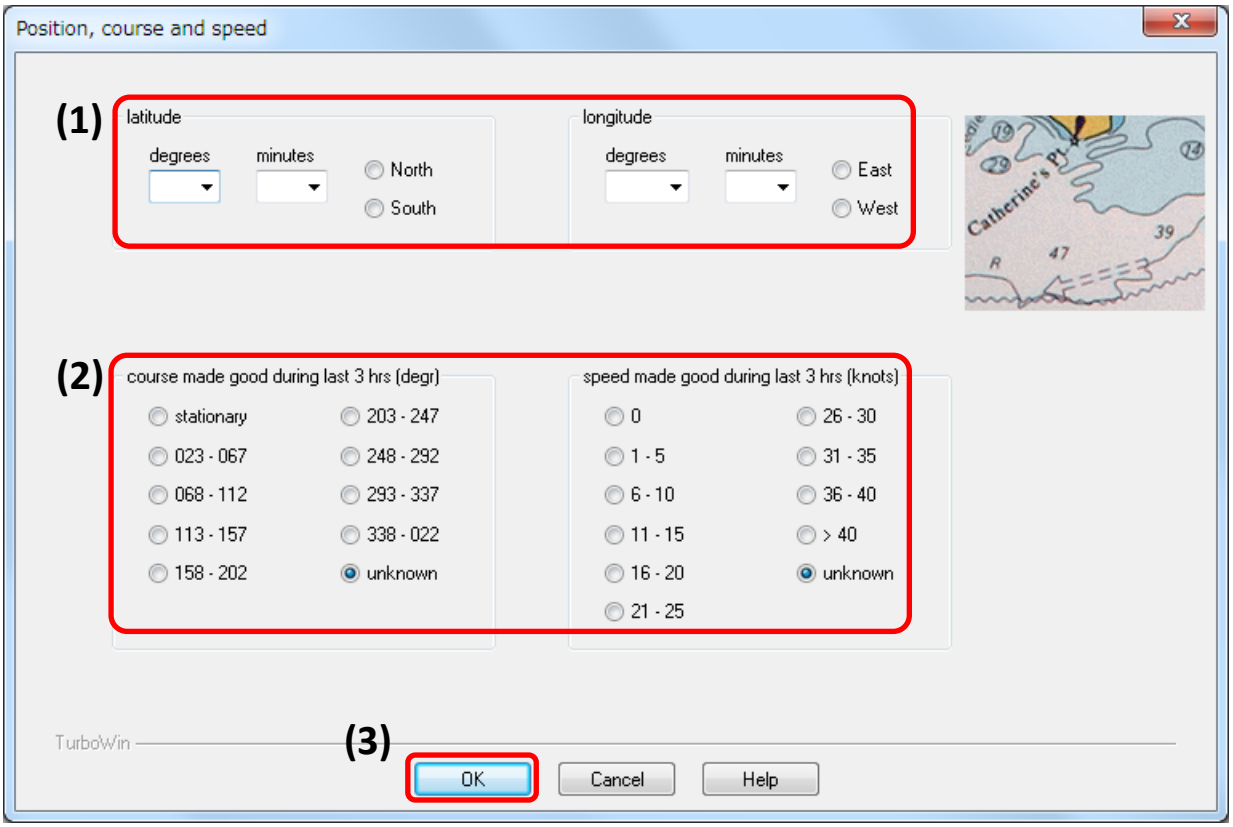


(1) Select the date and time of the observation in UTC from the drop-down menus.
Values can be input directly. Figures for months (i.e., **1–12**) or month names (e.g., **July**) can be used.

(2) Click **OK**.

3.3 Ship's Position, Course and Speed

Click  in the toolbar or select **Position** from **Input** in the menu bar.



(1) Select the latitude and longitude in degrees and minutes for the time of observation from the drop-down menus.

Values can be input directly. Numbers of minutes less than 10 should start with a zero (e.g., **04** for four minutes).

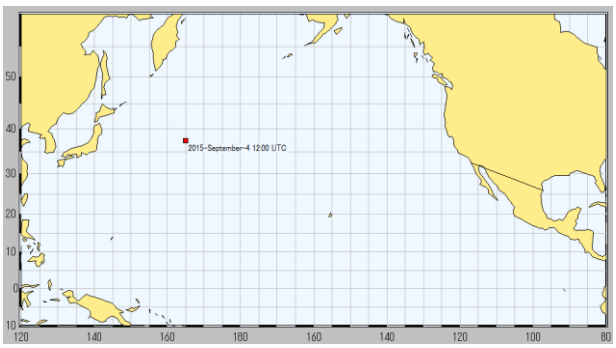
North or **South** and **East** or **West** must be selected according to the position.

(2) Select the course (true direction) and speed (unit: knots) for the last three hours.

If **stationary** is selected as the course, the speed must be **0**, and vice versa.

Note: **unknown** cannot be selected.

(3) Click **OK**. A map showing the position will appear.

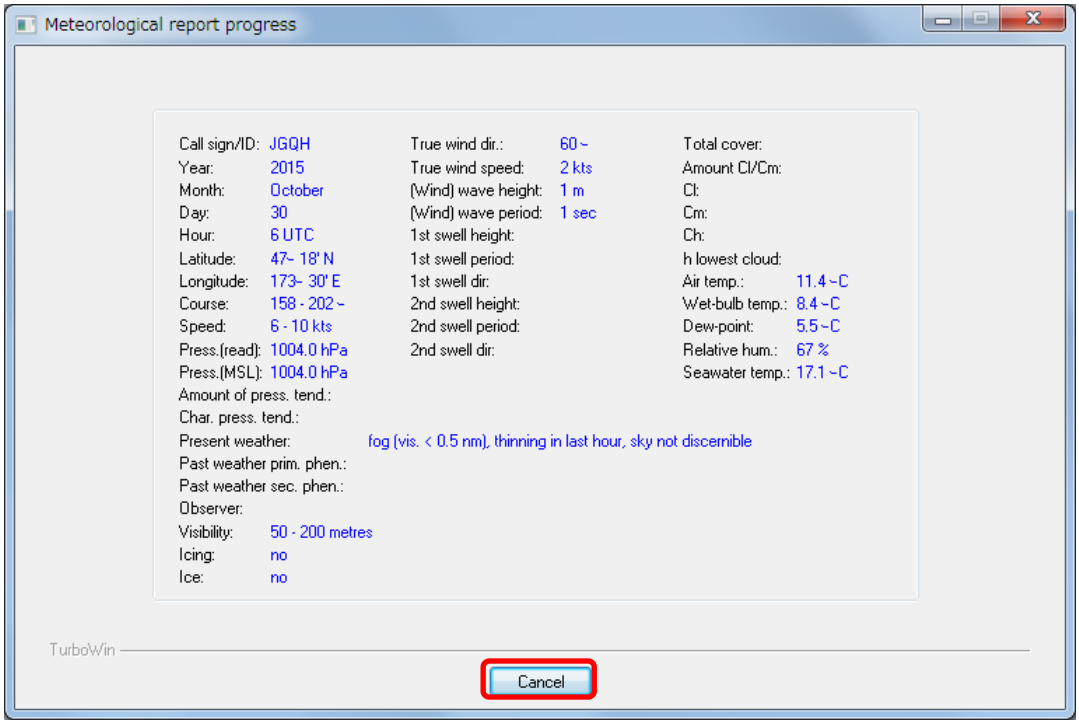


Progress of data input

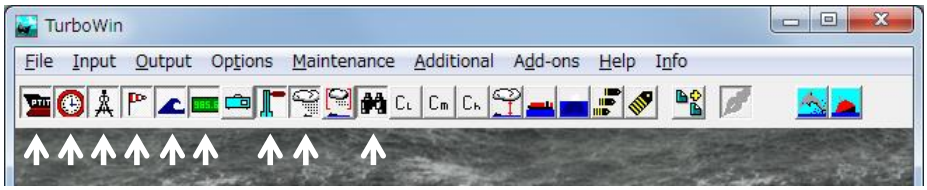
To check the progress of data input, click **Options** in the menu bar and select **Show progress**. The dialog box shown below will appear.

Entered observation data and calculated values such as true wind and dew-point temperature are shown in blue, while fields for non-entered elements are blank.

Click **Cancel** to close the dialog box.

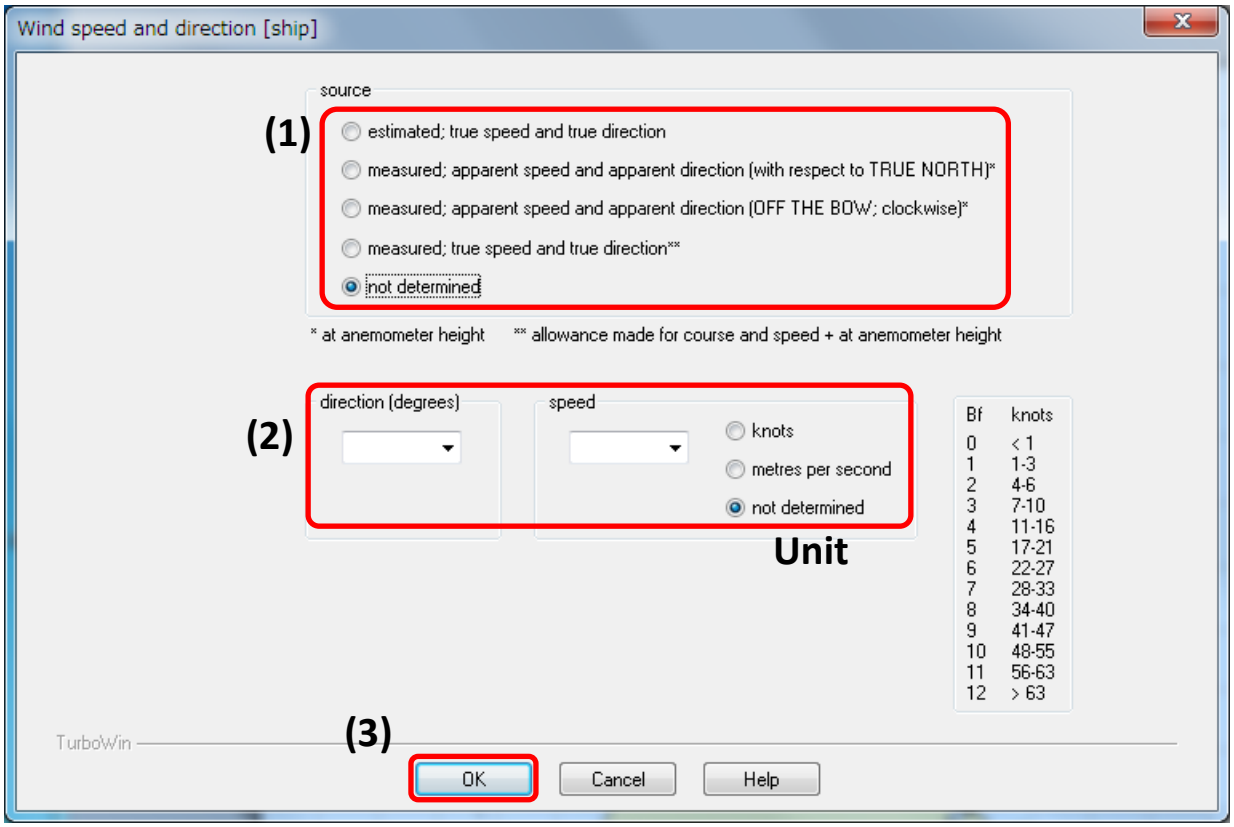


Progress can also be easily checked on the toolbar, as buttons for entered elements are recessed (see the arrows below).



3.4 Wind Speed and Direction

Click  in the toolbar or select **Wind** from **Input** in the menu bar.



(1) Select the method of wind observation.

Note: **not determined** cannot be selected.

(2) Select the direction from which the wind is blowing in tens of degrees (true direction except **apparent direction (OFF THE BOW; clockwise)**), the wind speed and the unit of speed.

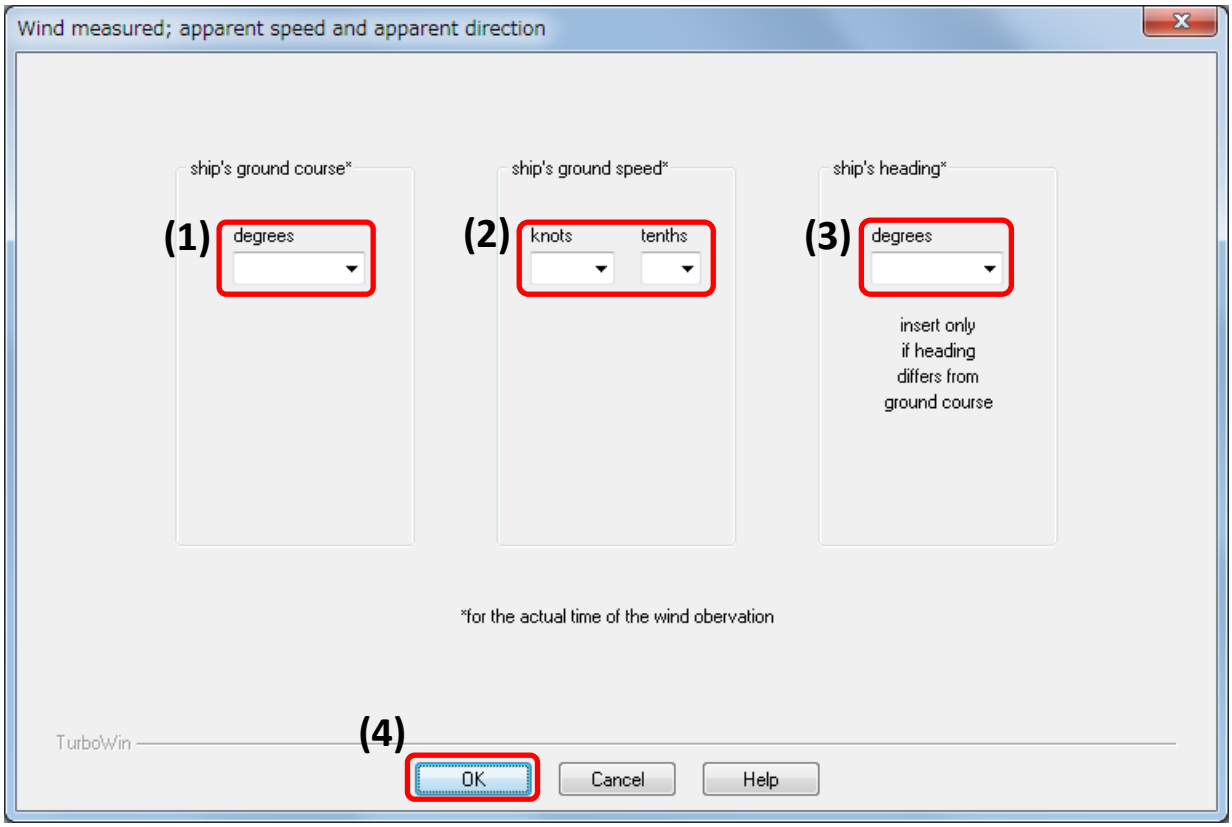
- If the direction is zero, select **360** rather than **0**.
- If the wind direction is indeterminate, select **variable** as the direction. The speed must be 2 m/s (4 knots) or less.
- If wind speed is less than 1 knot, select **calm** as the direction. The speed must be **0**.
- If the wind force of the Beaufort scale is estimated, convert it into wind speed before entering it.

(3) Click **OK** and move to the next page if apparent wind is entered in (2).

Otherwise, wind input is complete.

Ship's course, speed and heading

To enable determination of true wind from apparent wind, it is necessary to enter the ship's course, speed and heading at the time of observation.



(1) Input the ship's course (true direction).
If there is no change in position, select **stationary**.

(2) Input the ship's speed (unit: 0.1 knots).
If **stationary** is selected for (1), the speed must be **0.0**.

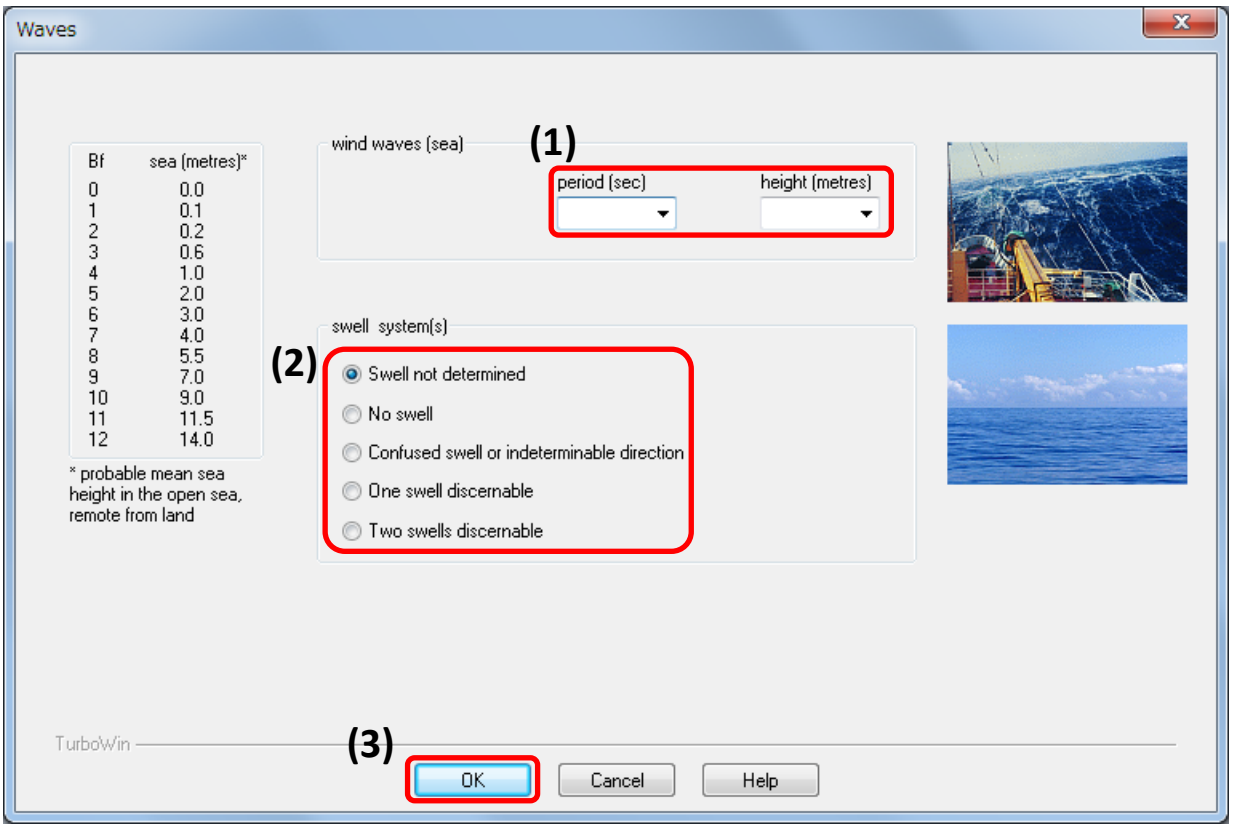
(3) Input the ship's heading (true direction) only if it differs from the course.

(4) Click **OK** to finish wind input.

3.5 Wind Waves and Swell

Click  in the toolbar or select **Waves** from **Input** in the menu bar.

The description here is for estimated waves. See p. 25 for input of wave recorder data.



(1) Input the period (unit: seconds) and height (unit: m) of wind waves (sea).

- If there are no wind waves, select **0** for both fields.
  Note: If the wind speed (p. 20) is **0**, both must be **0**.
- If determination is unclear due to rough seas, select **confused** for both fields.
- If determination is unclear for other reasons, leave both fields blank.

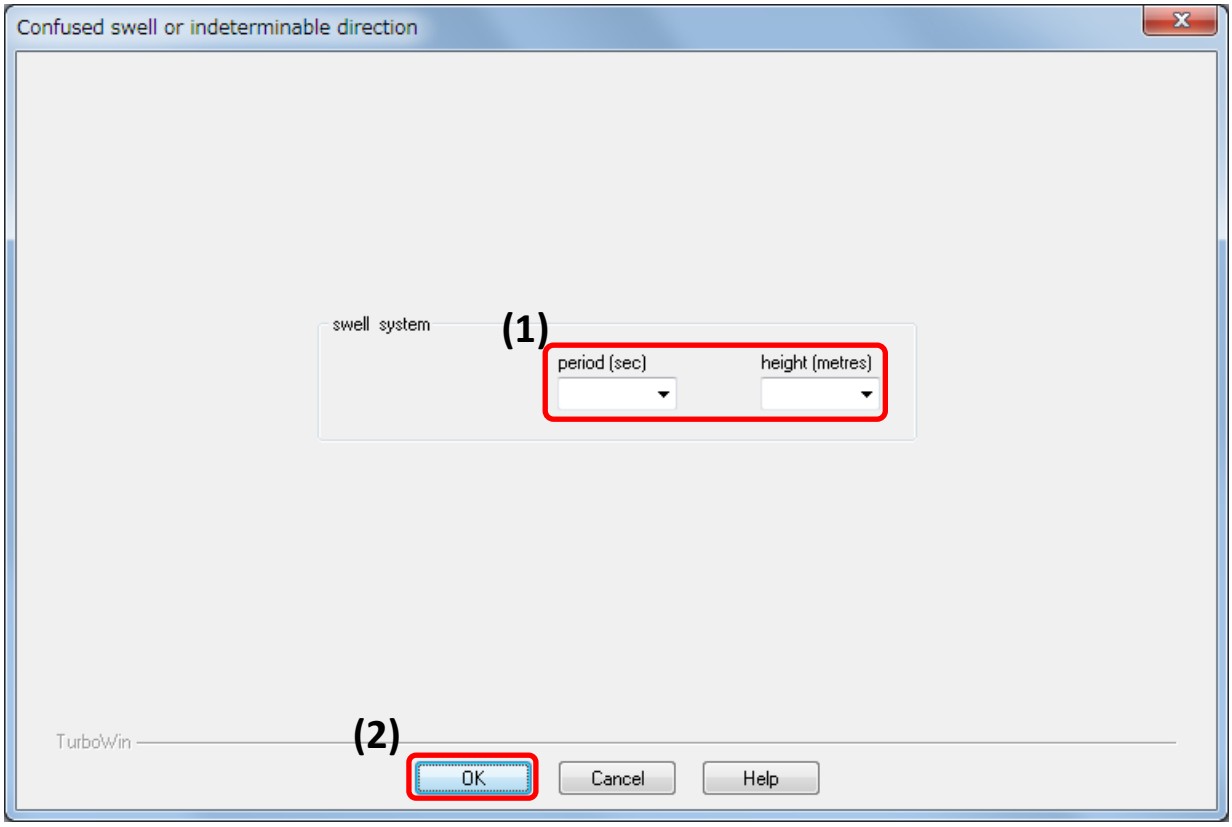
(2) Select the state of the swell system.

One/Two swell(s) discernable applies if the direction, period and height can be observed.

(3) Click **OK** and move to swell input.

- **Confused swell or …** → See p. 23.
- **One/Two swell(s) discernable** → See p. 24.
- Otherwise → Wave input is complete.

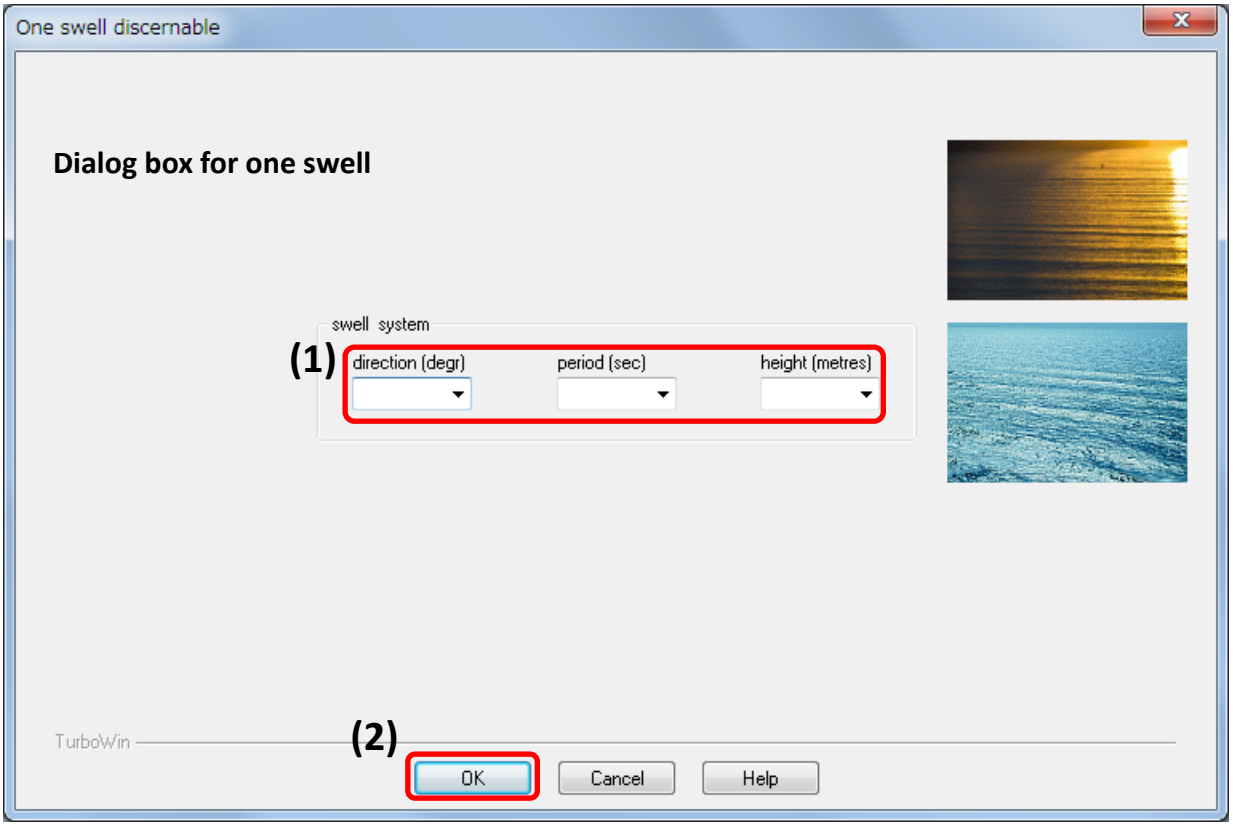
Swell input (confused swell or indeterminable direction)



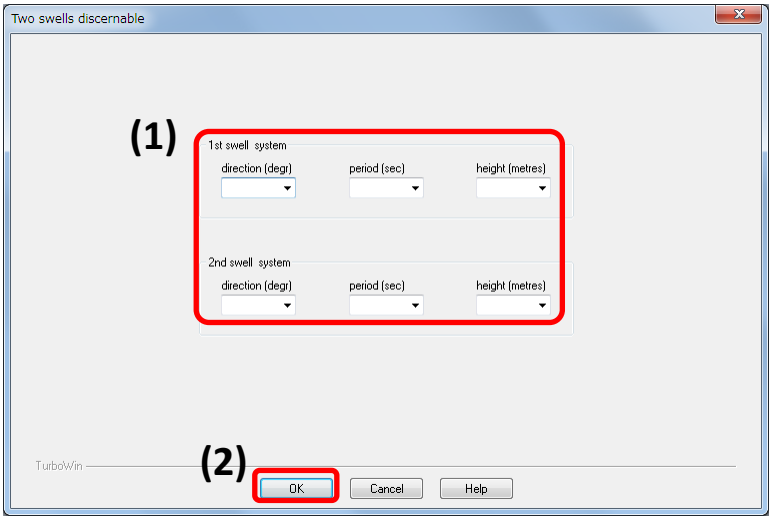
(1) Input the swell period (unit: seconds) and height (unit: m).
If the value(s) is unknown, leave the field(s) blank.

(2) Click **OK** to finish wave input.

Swell input (One/two swell(s) discernable)



Dialog box for two swells



(1) Input the true direction from which the swell comes, the period (unit: seconds) and the swell height (unit: m).

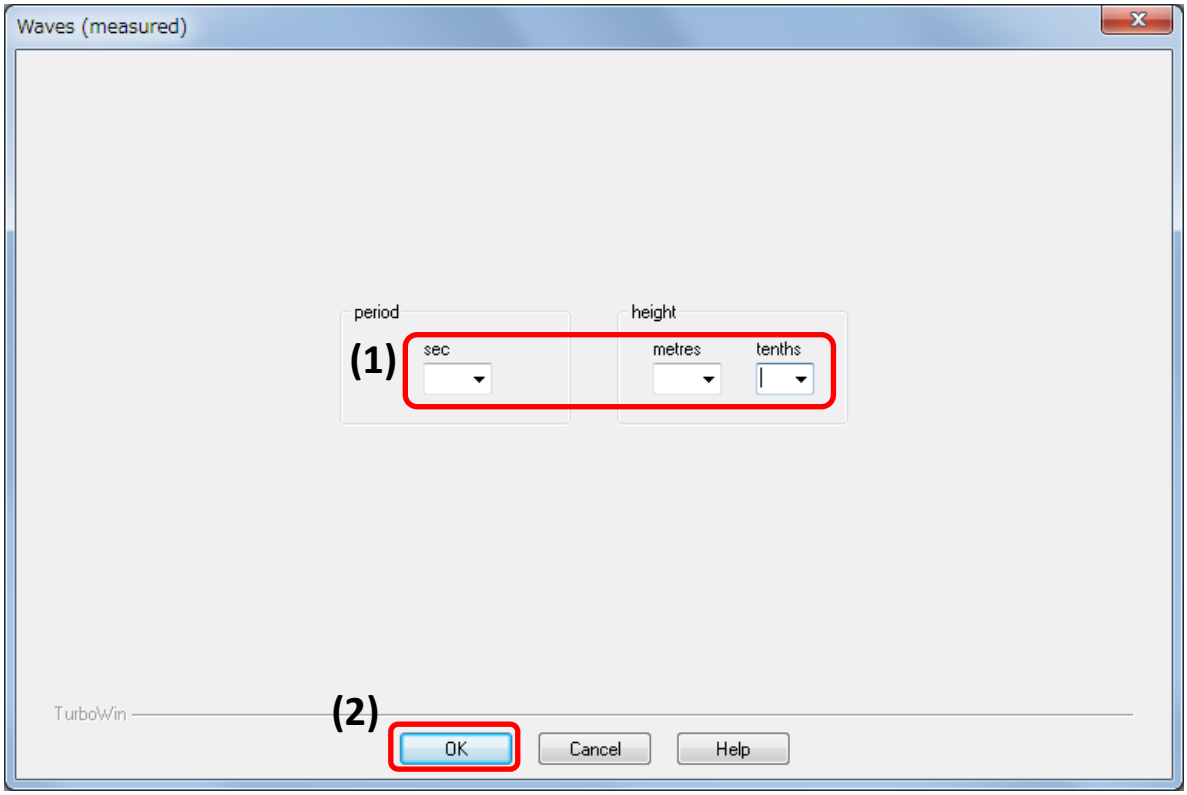
If the direction is zero, select **360**.

For two swells, enter the largest in “1st swell system” and the second-largest in “2nd swell system.”

Note: All fields are mandatory.

(2) Click **OK** to finish wave input.

Input of waves observed with a wave recorder

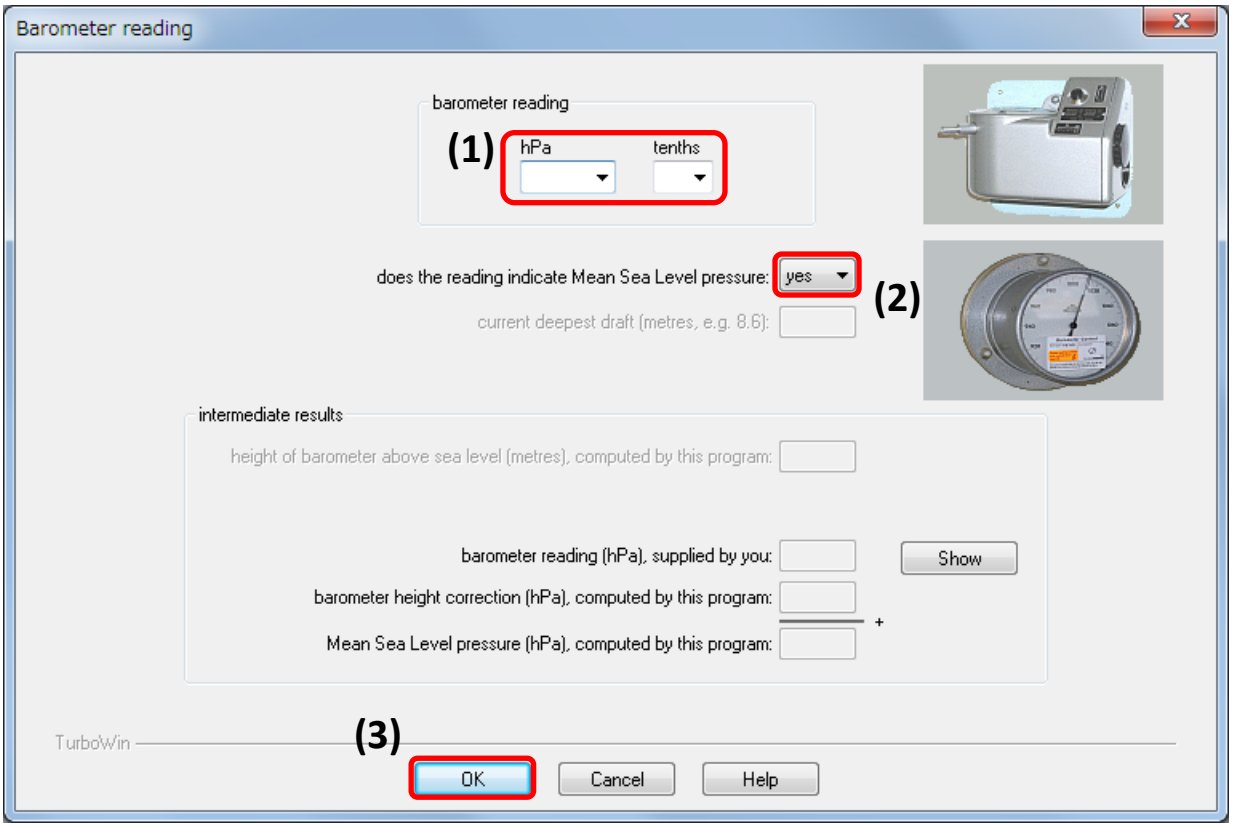


(1) Input the period (unit: seconds) and height (unit: 0.1 m).
If the values are unknown, leave the fields blank.

(2) Click **OK** to finish wave input.

3.6 Barometer Reading

Click  in the toolbar or select **Barometer reading** from **Input** in the menu bar.



(1) Input mean sea level pressure (unit: 0.1 hPa; see the box on the next page).

(2) Select **yes**.

(3) Click **OK**.

Mean sea level pressure

JMA provides barometer checking services via direct visits or by email/fax. If the barometer on board has been checked by JMA, add the “total correction” value shown in the results (the frames in the figures below) to the barometer reading to determine mean sea level pressure. For example, if the barometer reading and total correction are 1003.4 hPa and +1.3 hPa, respectively, input 1004.7 (= 1003.4 + 1.3) as the mean sea level pressure.

If no barometer check results are available, add the correction value from “Table for Correction of the Barometer Reading to Mean Sea-Level” in “Guide to Ship’s Weather Reports” to the barometer reading.

Given a barometer reading of 997.4 hPa, an above sea level barometer height of 6 m and an air temperature of 13°C, the correction value will be 0.7 hPa according to the table. Thus, 998.1 (= 997.4 + 0.7) should be input as the mean sea level.

Barometers should be checked every six months to maintain accuracy.

Visit-based barometer check results

Barometer Correction Card

Serial NO. [ ]
Date: Port:

True value (a)	Barometer reading (b)	Correction for instrumental error (c) = (a) - (b)

Height above draft	Correction to sea level (d)	**Total correction** (e) = (c) + (d)
full load		
in ballast		

Please add (e) to the barometer reading.

Japan Meteorological Agency

Email/fax-based barometer check results

気圧計の点検結果：The result of barometer check

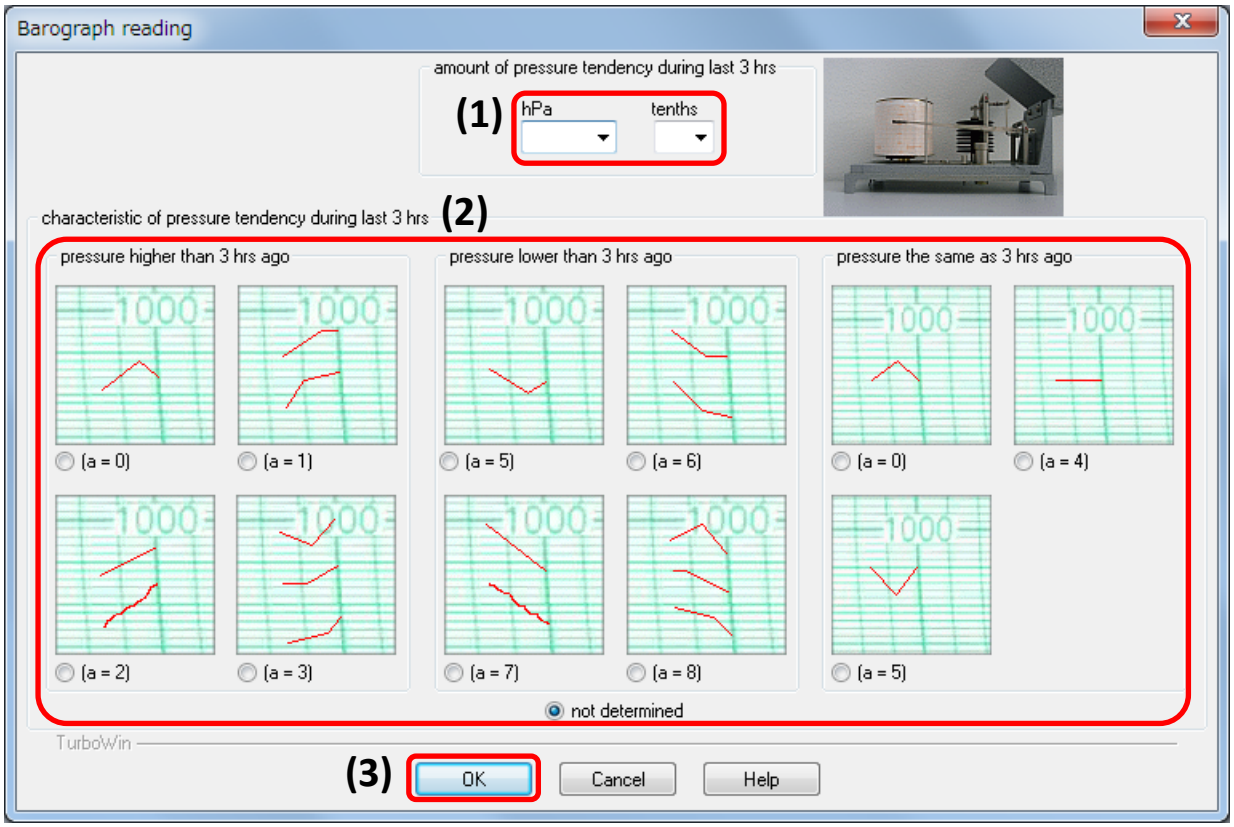
海面気圧の観測や通報の際は、気圧計の読みとり値に下記「総合補正値」を必ず加えてください。
Please add the following "Total Correction" value to barometer reading value.

	気圧計の高さ Height of barometer	海面更正値 (a) Correction to sea level	器差補正値 (b) Correction for instrumental error	総合補正値 (a)+(b) Total Correction
満載時 at Full load	m	hPa	hPa	hPa
空船時 in Ballast	m	hPa		hPa

総合補正値は、海面気圧1013.3hPa、気温15.0℃場合の値です。
The total correction values are calculated by the sea level pressure at 1013.3hPa and the outboard temperature at 15.0℃.

3.7 Barograph Reading

Click  in the toolbar or select **Barograph reading** from **Input** in the menu bar.



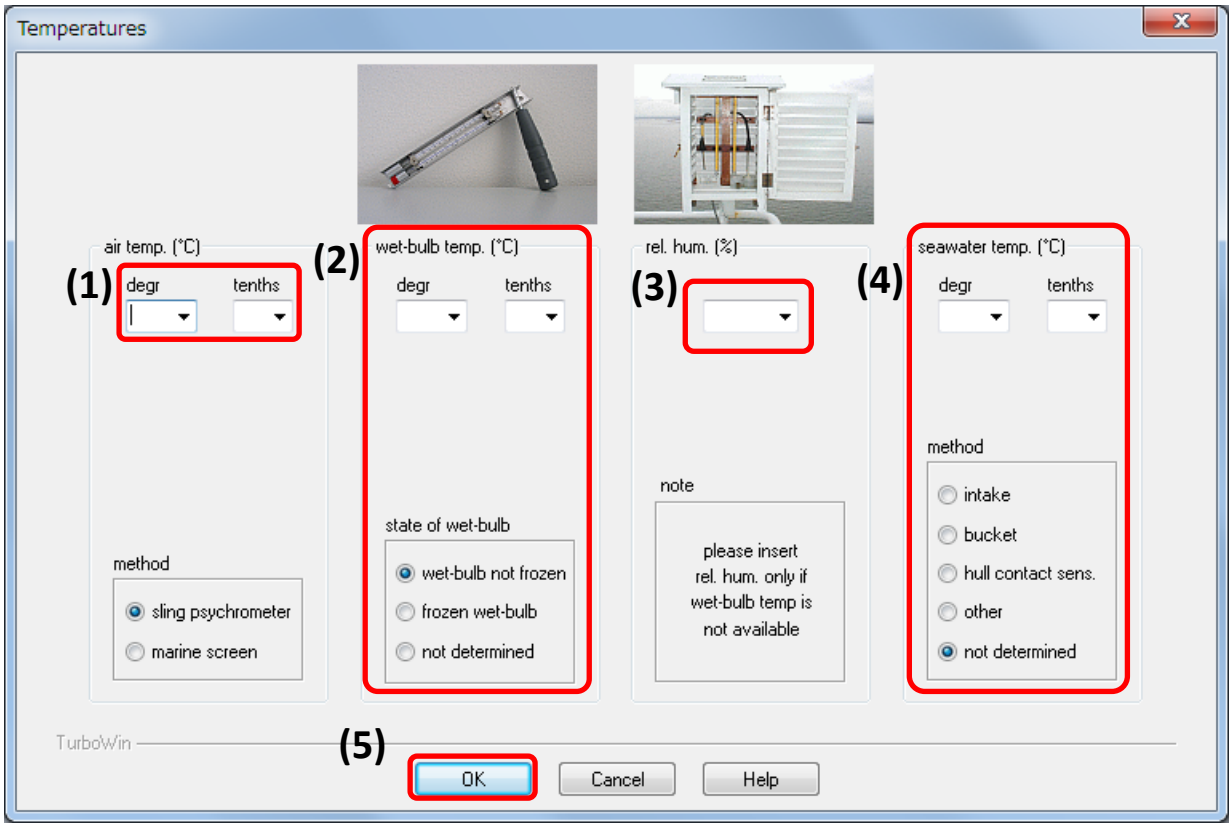
(1) Input <u>the absolute value</u> of pressure change for the last three hours (unit: 0.1 hPa).
For example, if the change is -3.4 hPa, input **3.4**.
If the value is unknown, leave the fields blank.

(2) Select the characteristic of pressure change for the last three hours with reference to the form of each graph.
If pressure at the time of observation is higher (lower) than that observed three hours ago, select from the left (middle) panel. If both values are the same (i.e., **0.0** is entered in (1)), select from the right panel.

(3) Click **OK**.

3.8 Air, Wet-Bulb and Seawater Temperatures

Click  in the toolbar or select **Temperatures** from **Input** in the menu bar.



(1) Input the air temperature (unit: 0.1°C).
If the value is unknown, leave the fields blank.

(2) Input the wet-bulb temperature (unit: 0.1°C) and select the wet-bulb state.
If the value is unknown, leave the fields blank and select **not determined**.
Note: If the wet bulb is frozen, its temperature cannot be positive.
Note: The wet-bulb temperature cannot be higher than the air temperature.

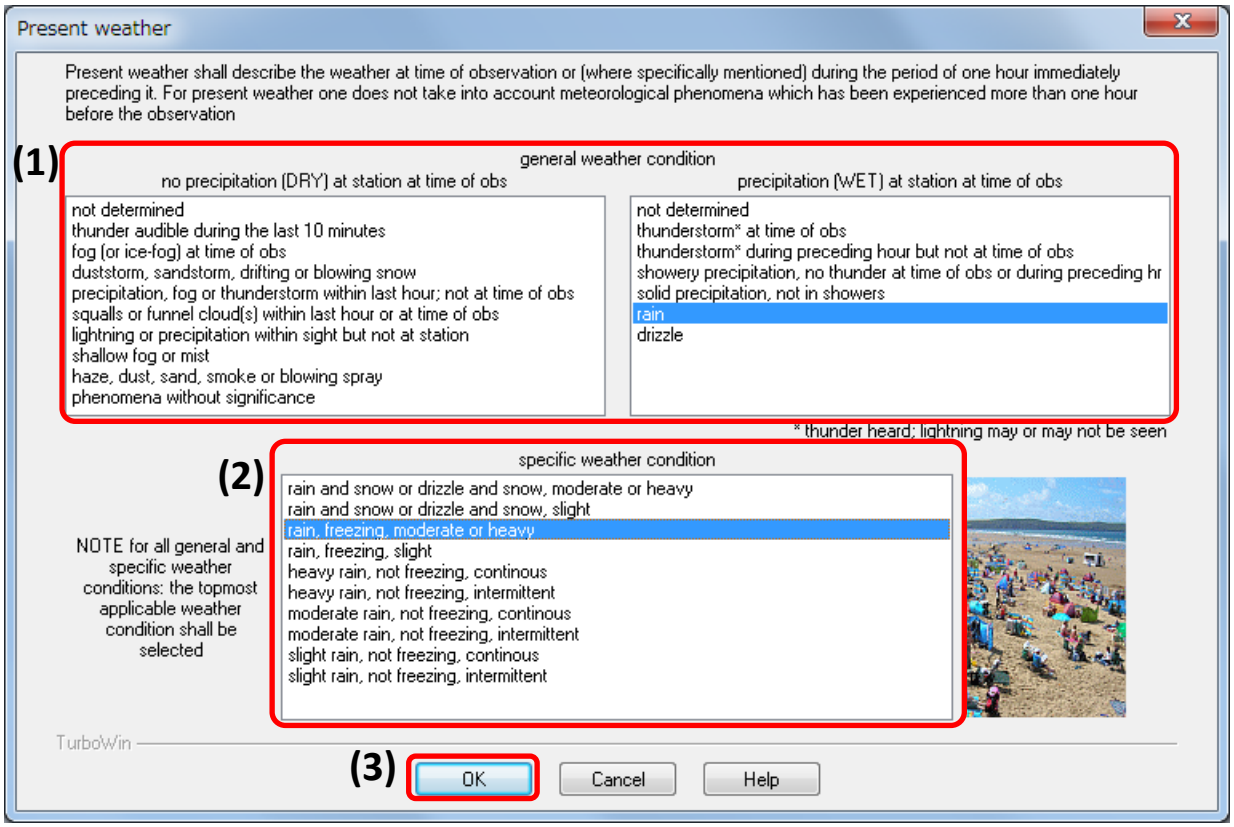
(3) Input the relative humidity (unit: %) only if the wet-bulb temperature is unknown.
If the value is unknown, leave the field blank.

(4) Input the seawater temperature (unit: 0.1°C) and select the method of its measurement.
If the value is unknown, leave the fields blank and select **not determined**.

(5) Click **OK**.

3.9 Present Weather

Click  in the toolbar or select **Present weather** from **Input** in the menu bar.



The weather conditions prevailing at the time of observation (or during the preceding hour) must be selected.

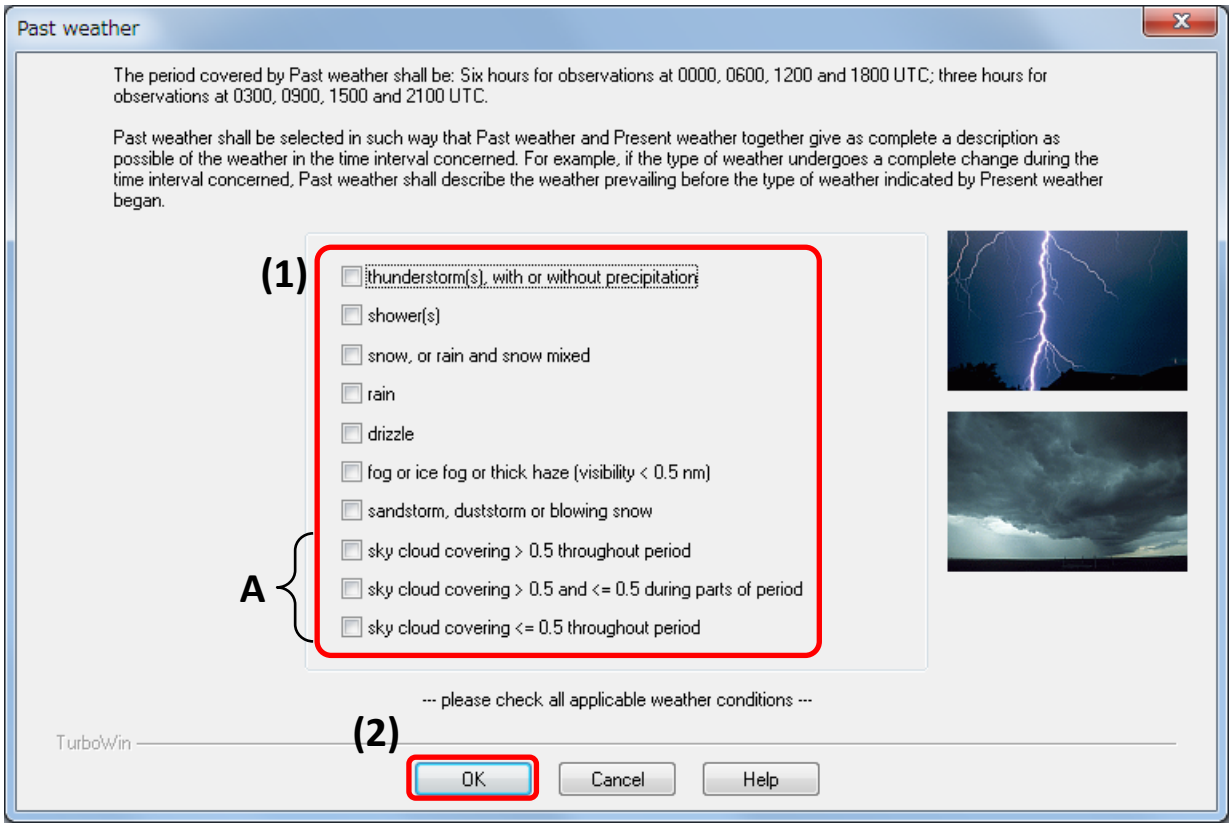
(1) Select the general weather condition from the right side if precipitation is observed on board at the time of observation (i.e., WET) or from the left side if there is no precipitation (i.e., DRY).
If two or more conditions apply, select the uppermost one.

(2) Several specific weather conditions will appear depending on the choice of (1). Select the most applicable one for the current weather.
If two or more conditions apply, select the uppermost one.

(3) Click **OK**.

3.10 Past Weather

Click  in the toolbar or select **Past weather** from **Input** in the menu bar.



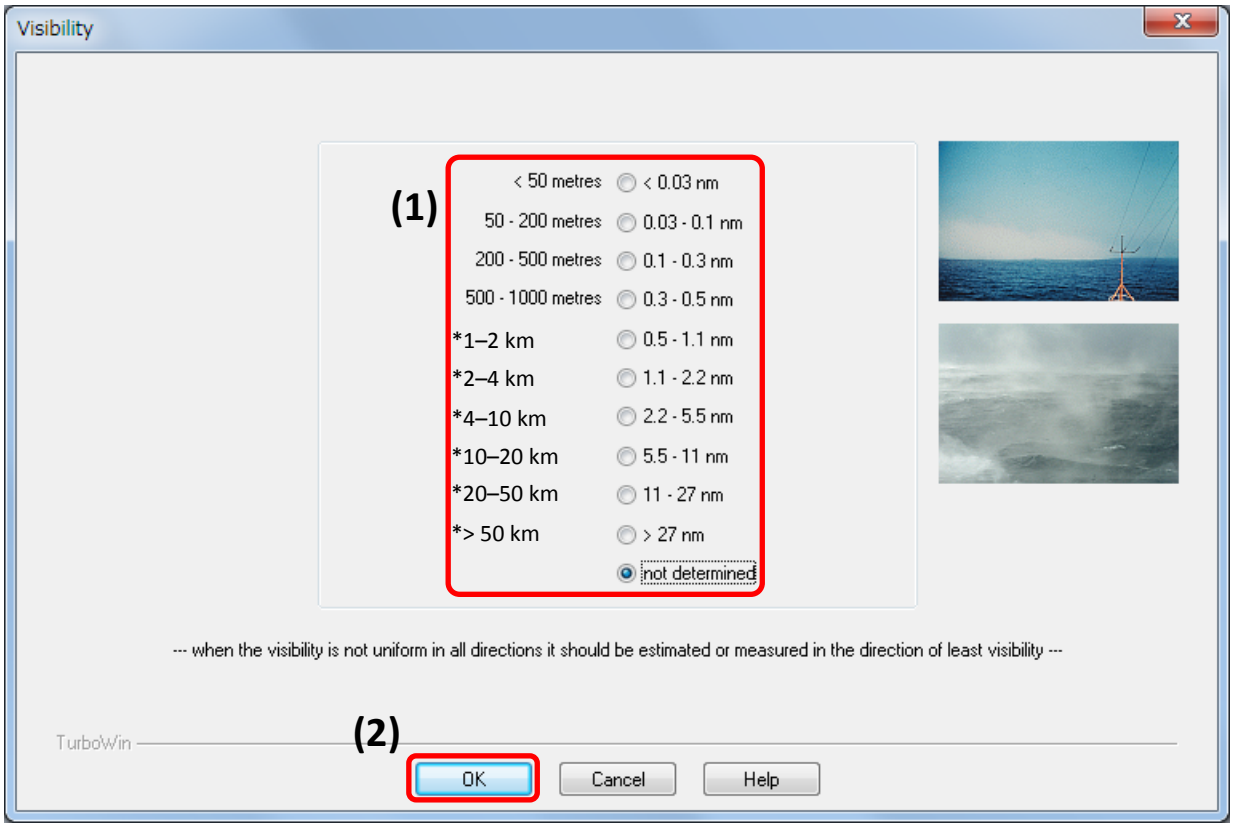
The term *past weather* refers to weather conditions observed in the preceding six hours (at 00, 06, 12 and 18 UTC), three hours (at 03, 09, 15 and 21 UTC) and one hour (other).

(1) All applicable past weather conditions should be selected. However, only one of the three options indicated by the A-bracket in the figure can be selected.

(2) Click **OK**.

3.11 Visibility

Click  in the toolbar or select **Visibility** from **Input** in the menu bar.



(1) Select visibility.

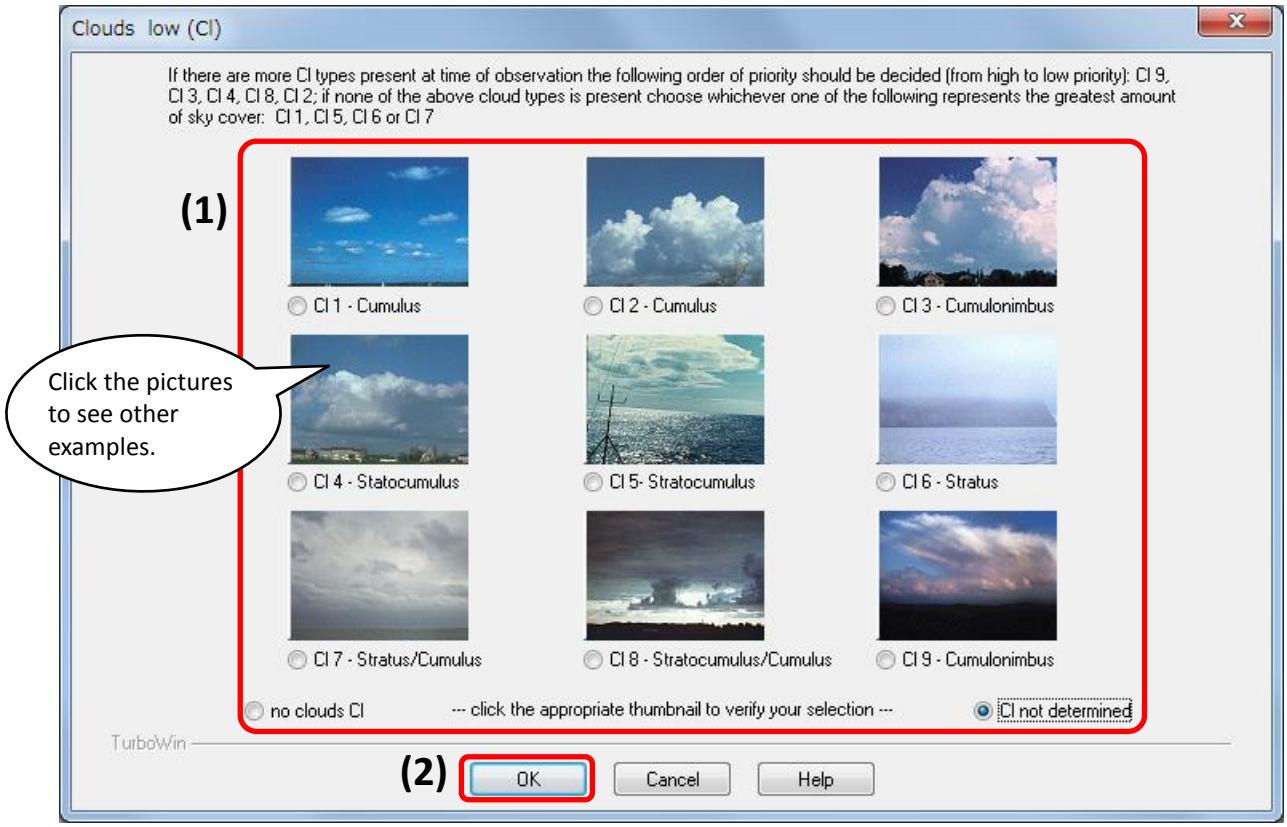
If visibility differs by direction, report the shortest value.

If visibility is 0.3 nm (500 m), select **0.3 – 0.5 nm (500 – 1000 meters)** rather than **0.1 – 0.3 nm (200 – 500 meters)**.

(2) Click **OK**.

3.12 Low Cloud Type

Click  in the toolbar or select **Clouds low** from **Input** in the menu bar.



(1) Select the low cloud type with reference to the pictures and the descriptions in the box.
If there are no low clouds, select **no clouds Cl**.

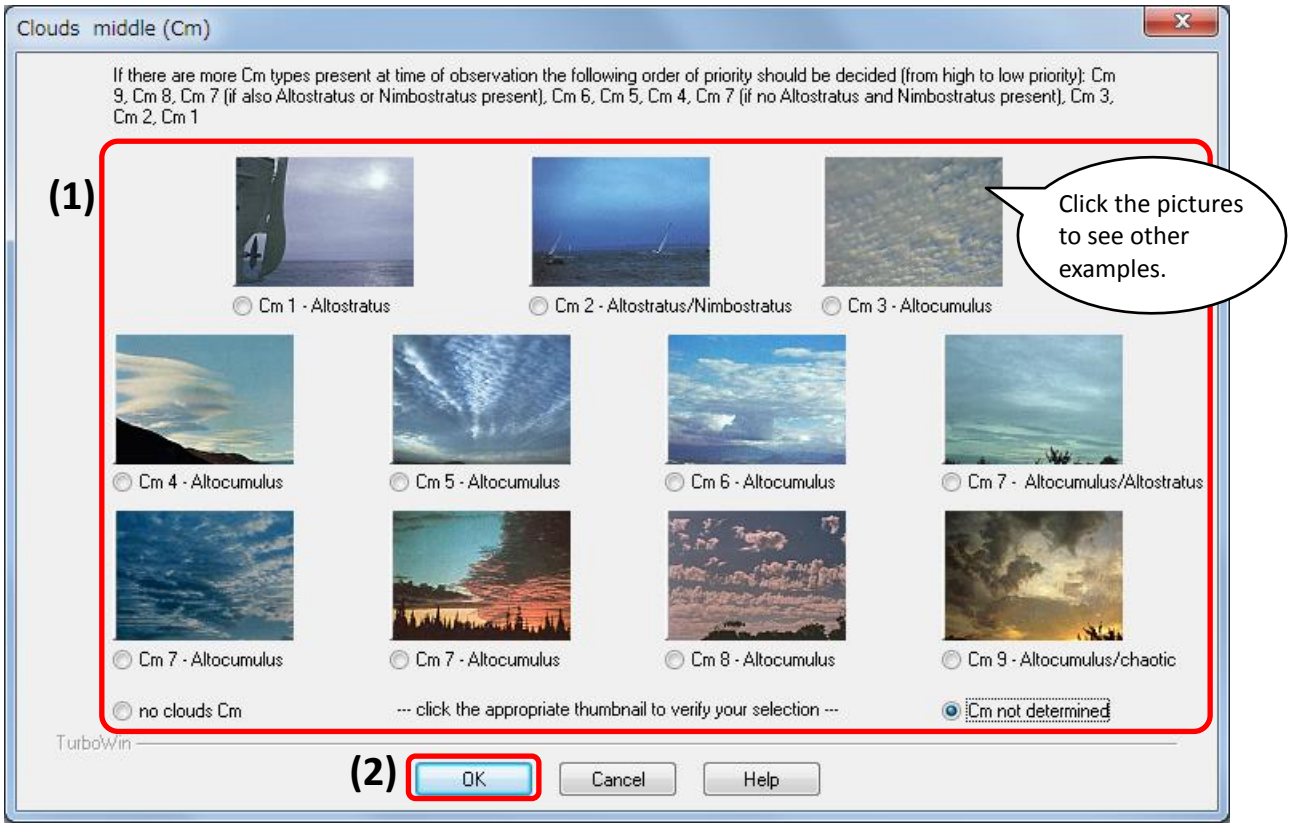
(2) Click **OK**.

Low cloud types

Cl1 Cumulus with little vertical extent, and/or ragged **cumulus** other than those observed during periods of bad weather
Cl2 Cumulus with moderate or strong vertical extent
Cl3 Cumulonimbus without a clearly fibrous or striated top
Cl4 Stratocumulus formed as a result of cumulus spread
Cl5 Stratocumulus not formed as a result of cumulus spread
Cl6 Stratus and/or ragged **stratus** other than those observed during periods of bad weather
Cl7 Ragged **status** and/or ragged **cumulus** observed during periods of bad weather
Cl8 Cumulus and **stratocumulus** not formed as a result of cumulus spread
Cl9 Cumulonimbus with a clearly fibrous or striated top

3.13 Middle Cloud Type

Click Cm in the toolbar or select **Clouds middle** from **Input** in the menu bar.



(1) Select the middle cloud type with reference to the pictures and the descriptions in the box.

If there are no middle clouds, select **no clouds Cm**.

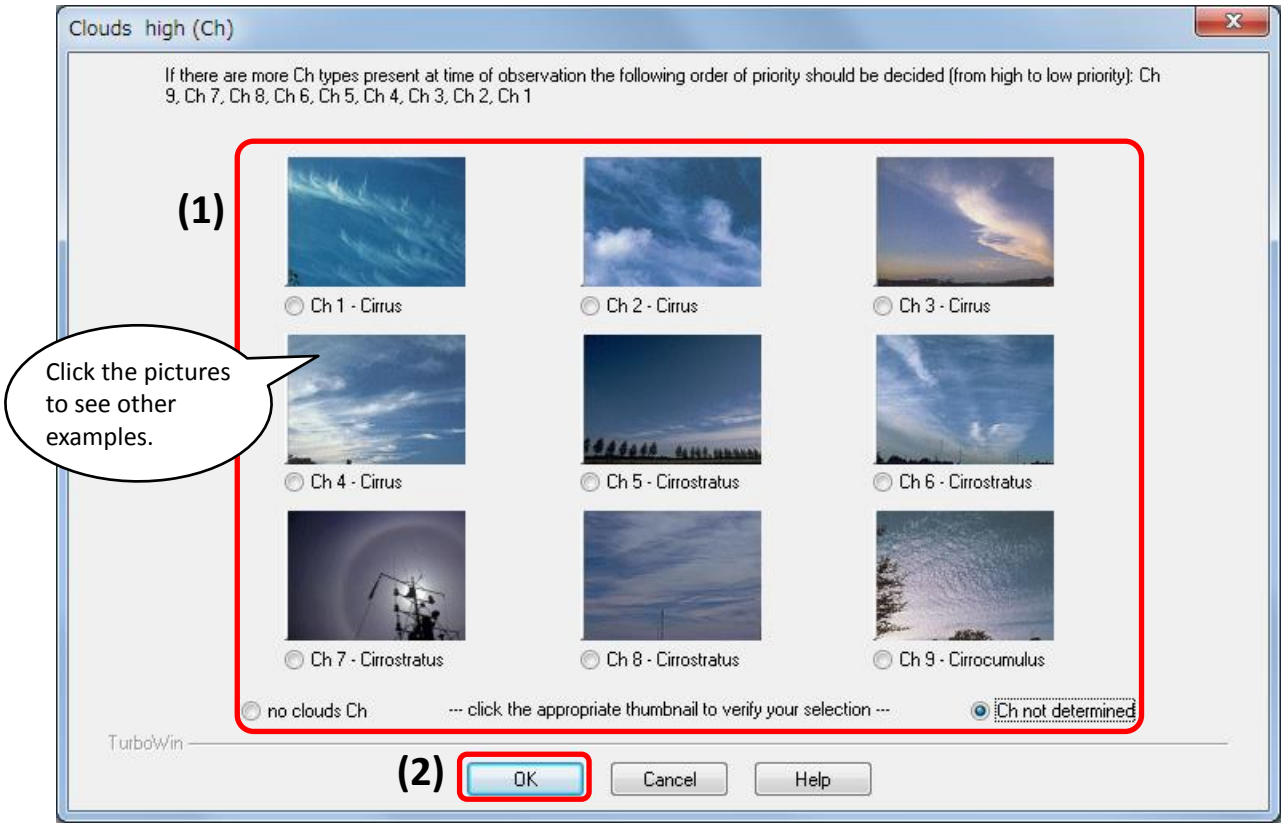
(2) Click **OK**.

Middle cloud types

Cm1 Semi-transparent **altostratus**
Cm2 Opaque **altostratus** or **nimbostratus**
Cm3 Predominant semi-transparent **altocumulus**
Cm4 Altocumulus, patches, semi-transparent, changing
Cm5 Altocumulus spreading in the sky
Cm6 Altocumulus formed as a result of cumulus or cumulonimbus spread
Cm7 Altocumulus with altostratus or nimbostratus; layered **altocumulus**; non-developing opaque **altocumulus** (select one of the three check boxes)
Cm8 Altocumulus with sprouting or tufts
Cm9 Altocumulus in a chaotic sky

3.14 High Cloud Type

Click Ch in the toolbar or select **Clouds high** from **Input** in the menu bar.



(1) Select the high cloud type with reference to the pictures and the descriptions in the box.
If there are no high clouds, select **no clouds Ch**.

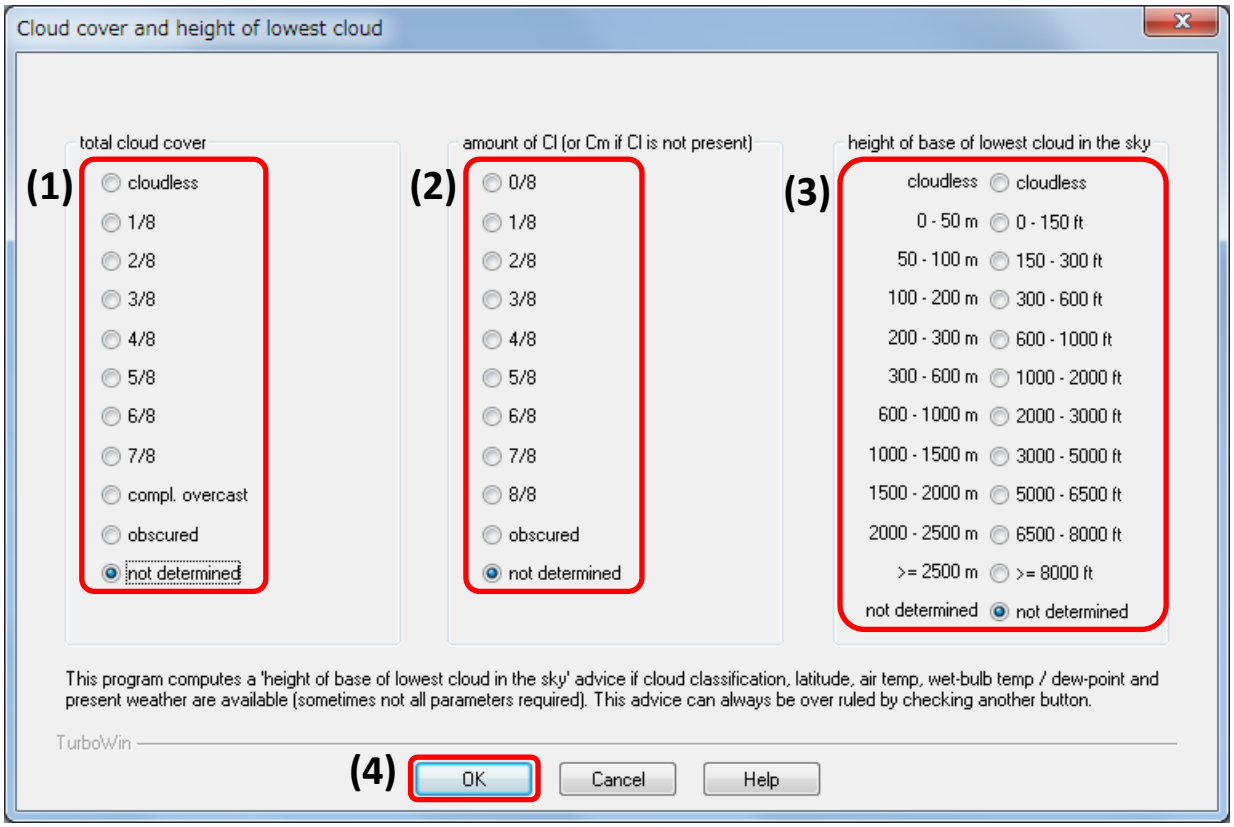
(2) Click **OK**.

High cloud types

Ch1 Cirrus in the form of filaments not spreading in the sky
Ch2 Dense **cirrus** and/or cirrus with predominant sprouting or tufts
Ch3 Dense **cirrus** originating from cumulonimbus
Ch4 Cirrus in the form of filaments or hooks spreading in the sky
Ch5 Cirrostratus veil less than 45 degrees above the horizon
Ch6 Cirrostratus veil more than 45 degrees above the horizon
Ch7 Cirrostratus covering the whole sky
Ch8 Cirrostratus not spreading in the sky
Ch9 Cirrocumulus alone or with cirrus and/or cirrostratus

3.15 Cloud Amount and Height of Lowest Cloud

Click  in the toolbar or select **Cloud cover + height** from **Input** in the menu bar.



(1) Select the total cloud cover in eighths.

- If the sky is completely covered with cloud, select **compl. overcast**.
- If the sky is obscured due to fog or haze, select **obscured**.

(2) Select the amount of low cloud in eighths. If no low cloud is present, select the amount of middle cloud.

Note: The value cannot be greater than that of the total cloud cover in (1). For example, if the total cover is **6/8**, **7/8** and **8/8** cannot be selected.

- If the sky is obscured due to fog or haze, select **obscured**.

(3) Select the height of the base of the lowest cloud.

If the value is 300 m (1,000 feet), select **300 – 600 m (1000 – 2000 ft)** rather than **200 – 300 m (600 – 1000 ft)**.

(4) Click **OK**.

Notes on cloud input

If cloud data (i.e., the type (pp. 33–35), amount and height (p. 36)) are not entered consistently, an error message will appear.

- If **cloudless** is selected for the total cloud cover,
  select **no clouds** for the low, middle and high cloud types,
  0/8 for the amount of low cloud and **cloudless** for the height.

- If **not determined** is selected for the total cloud cover,
  select **not determined** for the low, middle and high cloud types, the amount of low cloud and the height.

- If **obscured** is selected for the total cloud cover,
  select **obscured** for the amount of low cloud
  and **not determined** for the low, middle and high cloud types and the height.

- If **0/8** is selected for the amount of low cloud,
  select **no clouds** for the low and middle cloud types.

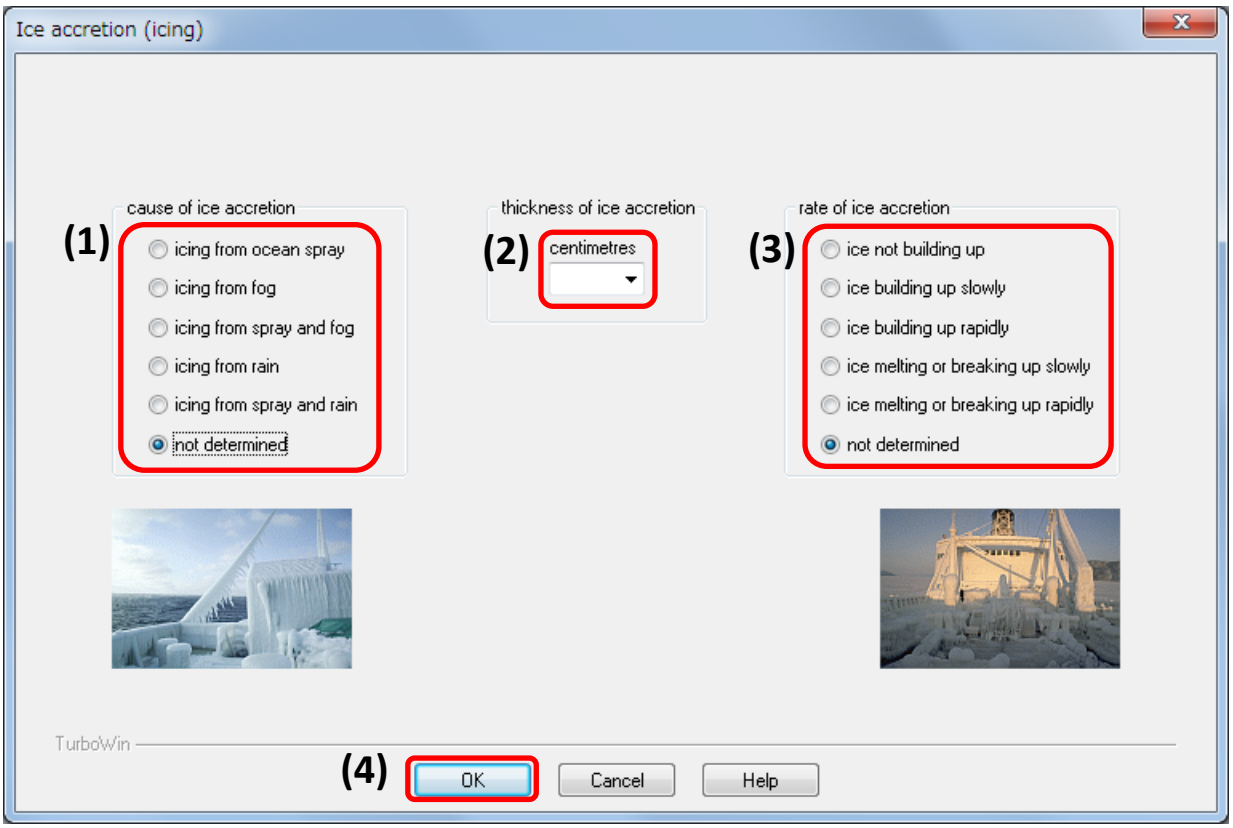
- If **8/8** is selected for the amount of low cloud,
  select **not determined** for the high cloud type.
  If **Cl1**–**Cl9** is selected as the low cloud type, the middle cloud type must also be **not determined**. In such situations, the height must be under 2,500 m (8,000 feet).

- If only high cloud is present, select **>= 2,500 m (8,000 ft)** for the height.

3.16 Ice Accretion

Click  in the toolbar or select **Icing** from **Input** in the menu bar.

Note: This element should be entered only if ice accretion is observed on board.



(1) Select the cause of ice accretion.

(2) Input the thickness of ice accretion (unit: cm).
If the thickness is not uniform on the ship, enter the largest value.
If the value is unknown, leave the field blank.

(3) Select the rate of ice accretion.

(4) Click **OK**.

Notes on observation data input

If there are inconsistencies among elements, an error message may appear when a weather report is created (see also p. 37 for notes on clouds).

Wind speed (p. 20) and wind wave height (p. 22)

If the true wind speed is 3 m/s or less, the wind wave height must be less than 10 m.

Present weather (p. 30) and cloud (pp. 33–36)

If **fog, sky not discernable** is selected for the present weather, select **not determined** for the total cloud cover and the low, middle and high cloud types.

If **rain** or **drizzle** is selected for the present weather, **cloudless** cannot be selected for the total cloud cover.

Present weather (p. 30) and visibility (p. 32)

If **fog (vis. < 0.5 nm)** is selected for the present weather, visibility must be less than 0.5 nm (1 km).

If **fogbank at a distance** is selected for the present weather, visibility must be 0.5 nm (1 km) or more.

Present weather (p. 30) and air temperature (p. 29)

If snow, freezing rain (or drizzle), rime or ice prisms (or pellets) is selected for the present weather, the air temperature must be 20°C or less.

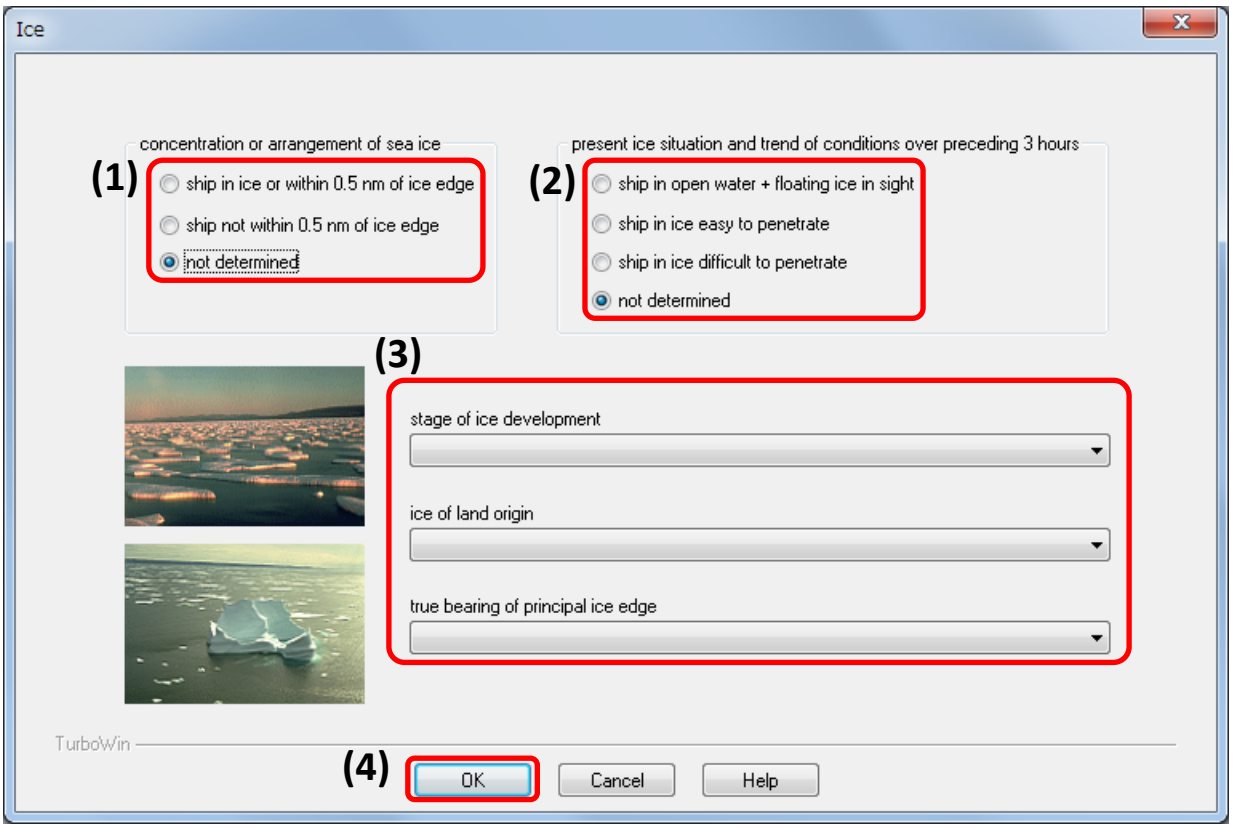
Ice accretion (p. 38), ice (p. 40) and air temperature (p. 29)

If ice accretion or ice is reported, the air temperature must be 20°C or less.

3.17 Ice

Click  in the toolbar or select **Ice** from **Input** in the menu bar.

Note: This element should be entered only if sea ice is observed.



(1) Select the position of the ship relative to the sea ice.

(2) Select the present ice situation.

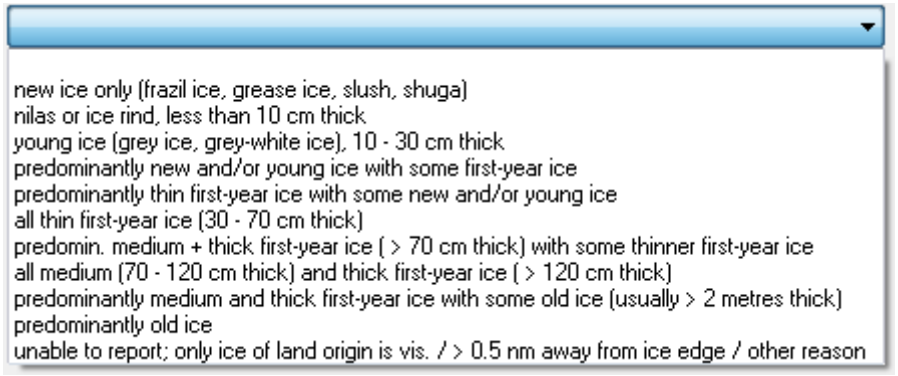
(3) Select the stage of ice development, ice of land origin and the true bearing of the principle ice edge from each drop-down menu (see the next page for the options of each).

(4) Click **OK**.

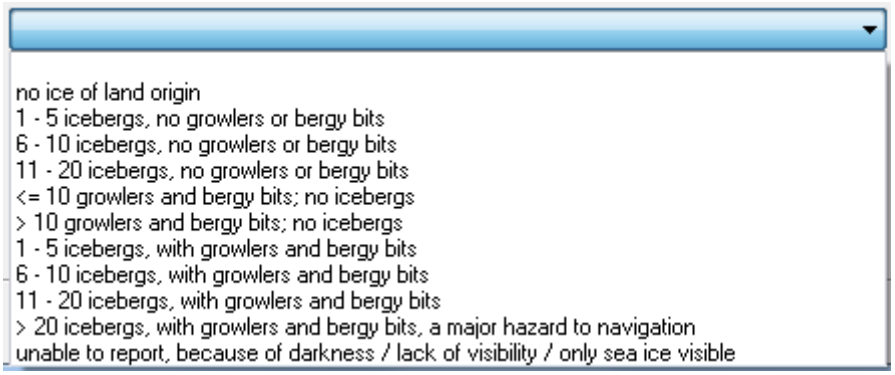
Depending on the choices made in (1) and (2), other dialog boxes will appear regarding the concentration/arrangement of sea ice and the trend of sea ice condition over the last three hours. Select the applicable description in each dialog box.

Drop-down menus for (3)

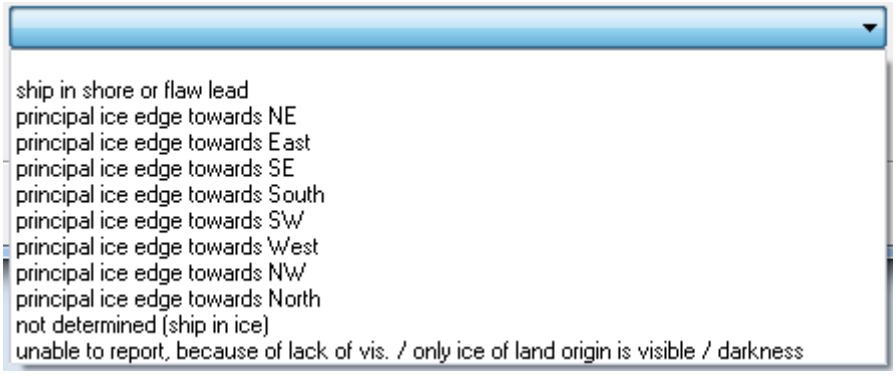
Stage of ice development



Ice of land origin



True bearing of principle ice edge

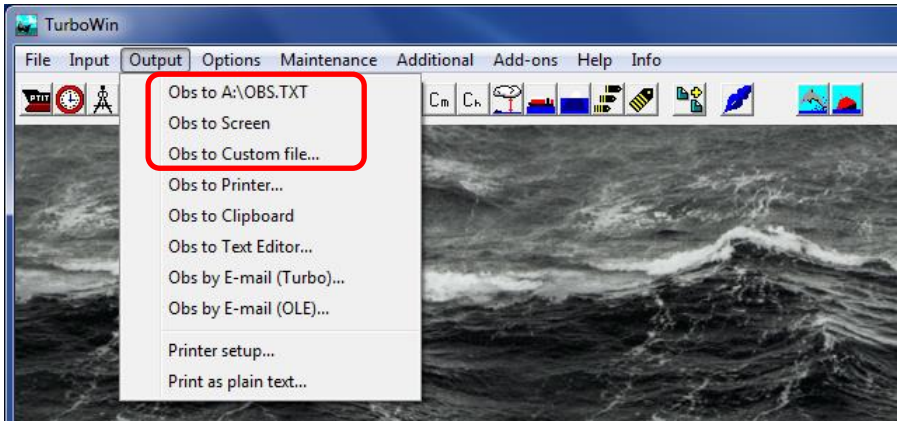


4. Submission of Weather Reports and Logbooks

4.1 Weather Reports

When observation data input is complete, the information must be encoded and sent to JMA via Inmarsat as a weather report (SHIP message).

(1) Choose one of the following three options from **Output** in the menu bar:



- **Obs to A:\OBS.TXT**

  Weather reports with the file name **OBS.TXT** are saved to a floppy disk. If this method will be used to copy the weather report file to the Inmarsat terminal, select this option after inserting the disk into the A drive.

  Note: Any **OBS.TXT** file already present on the floppy disk will be overwritten with the weather report.

- **Obs to Screen**

  The encoded message will be shown only in a dialog box and no file will be saved. Users wishing to check the content of a weather report before saving it should select this option.

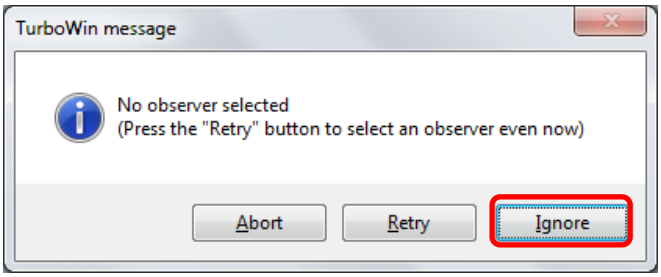
- **Obs to Custom file**

  The weather report will be saved in the specified folder with the specified file name. If a USB device will be used to copy the weather report file to the Inmarsat terminal, select this option.

Note: If an error message appears and the weather report cannot be created, the following points may be the causes:

- The call sign (p. 16), the date and time (p. 17) and the ship's position, course and speed (p. 18) must be input to make a weather report.
- There may be inconsistent input. Check the data entered with reference to pp. 37 and 39.

(2) Click **Ignore**.



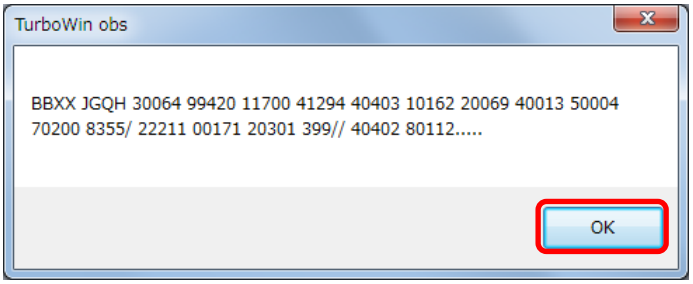
(3) TurboWin creates or displays the weather report.

Obs to A:\OBS.TXT

Check that the **OBS.TXT** weather report file is saved to the floppy disk in the A drive.

Obs to Screen

An encoded message will be shown in a dialog box (no file will be saved). Click **OK** to close the box.



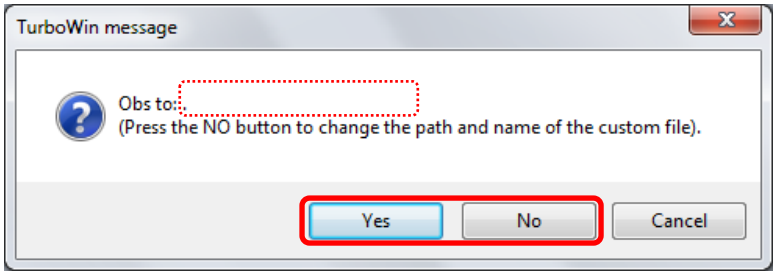
Obs to Custom file

(i) The weather report file name will be shown in a dashed line frame.

To change it, click **No**; otherwise, click **Yes** and proceed to (iii).

A period will be displayed by default as shown below. Click **No** to specify the file name.

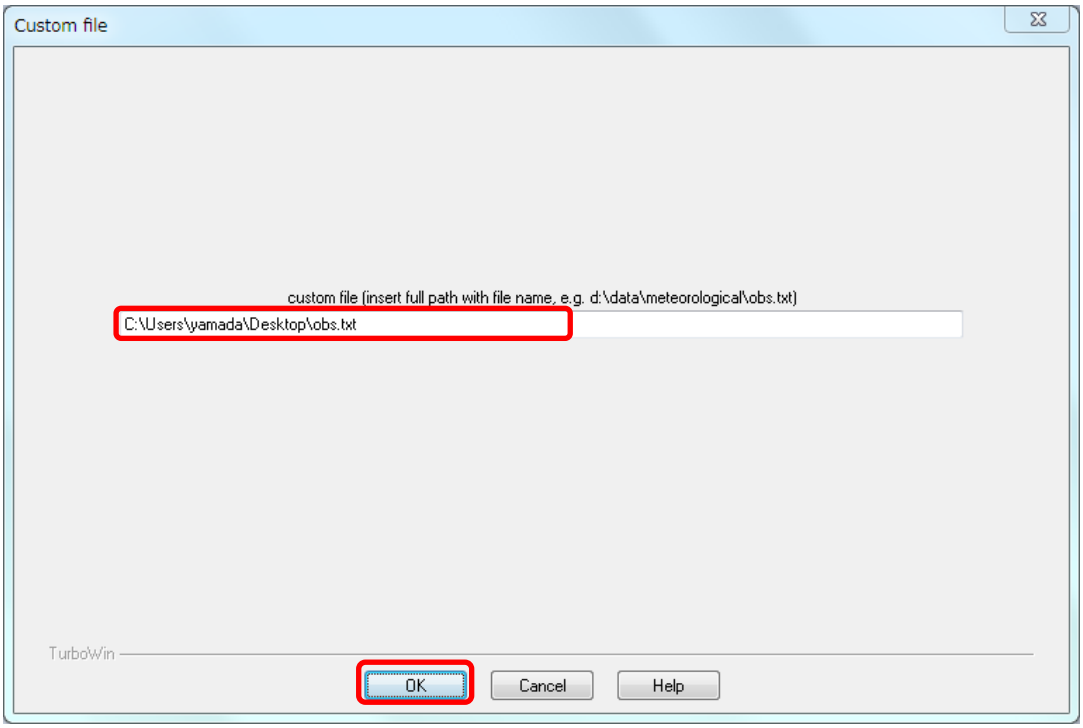
Note: Any existing file with the name specified will be overwritten with the weather report.



(ii) Specify the file name starting with the drive letter, then click **OK**.

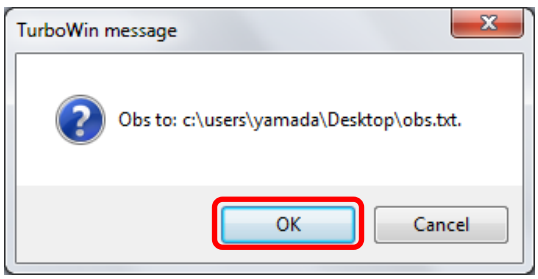
For example, if the weather report is saved in **Users\yamada\Desktop** on the C drive as **obs.txt**, enter **C:\Users\yamada\Desktop\obs.txt**.

For a USB device in the F drive, enter **F:\obs.txt**.

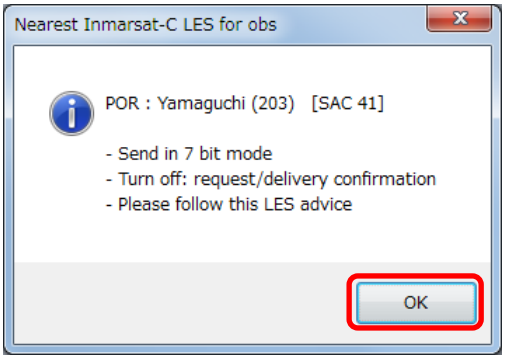


The specified file name will appear by default in future usage.

(iii) Click **OK**, then check that the weather report file has been saved with the name specified.

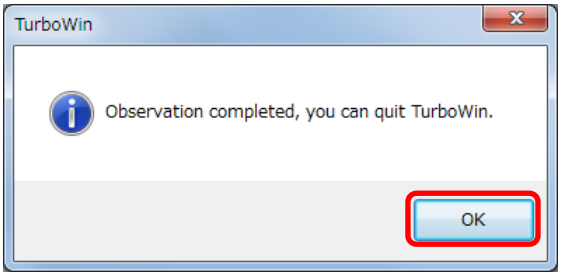


(4) Click **OK**.



(5) Click **OK**. TurboWin can now be closed.

Copy the weather report file to the Inmarsat terminal and send it to JMA.



JMA collects weather reports through the Land Earth Station (LES) in Yamaguchi, Japan, using the Inmarsat service via the Pacific Ocean Region (POR) satellite for systems B (LES ID: 003) and C (LES ID: 203) and via the Indian Ocean Region (IOR) satellite for system C (LES ID: 303). Use the Special Access Code 41 to charge the transmission fee to JMA.

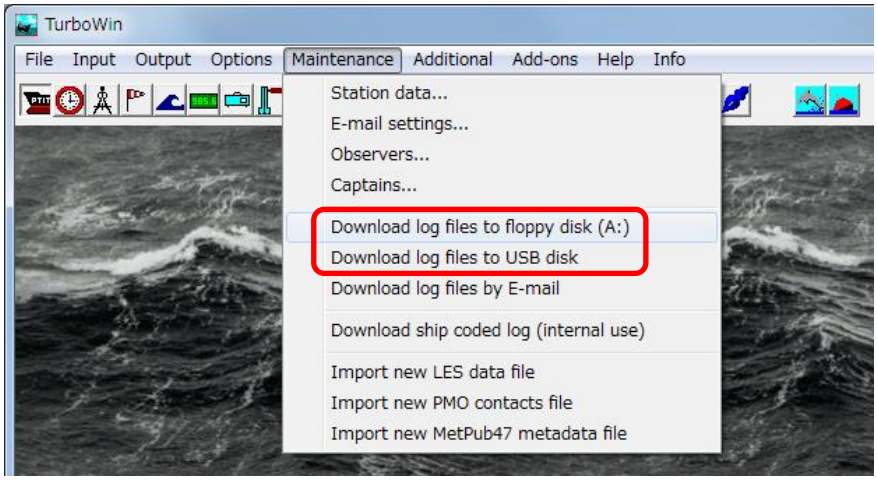
Weather reports can also be sent to other meteorological services through other LESs free of charge using the Special Access Code (normally 41).

4.2 Marine Meteorological Logbooks

Observation data collected are saved in digital format as marine meteorological logbooks. Users are encouraged to send logbook files to JMA when calling at Japanese ports. The data are used for monitoring global warming and conducting climate change research.

Note: The instructions below need to be followed **only once only when a logbook file is sent to JMA**, as the collected data will be deleted after the procedure.

(1) Choose one of the following two options from **Maintenance** in the menu bar:



- **Download log files to floppy disk (A:)**

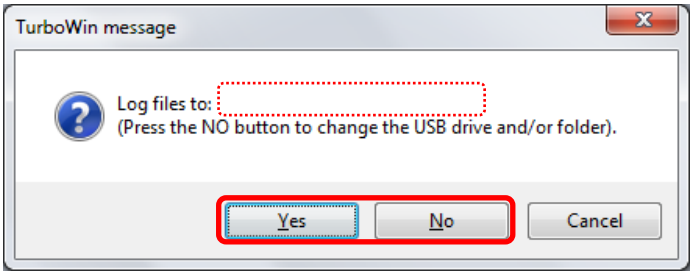
  The logbook file is saved to a floppy disk on the A drive. Have a blank disk ready.

- **Download log files to USB disk**

  The logbook file is saved in the specified folder on a USB device, the PC desktop or elsewhere.

(2) (For **Download log files to USB disk** only) Specify the folder in which the logbook file is to be saved.

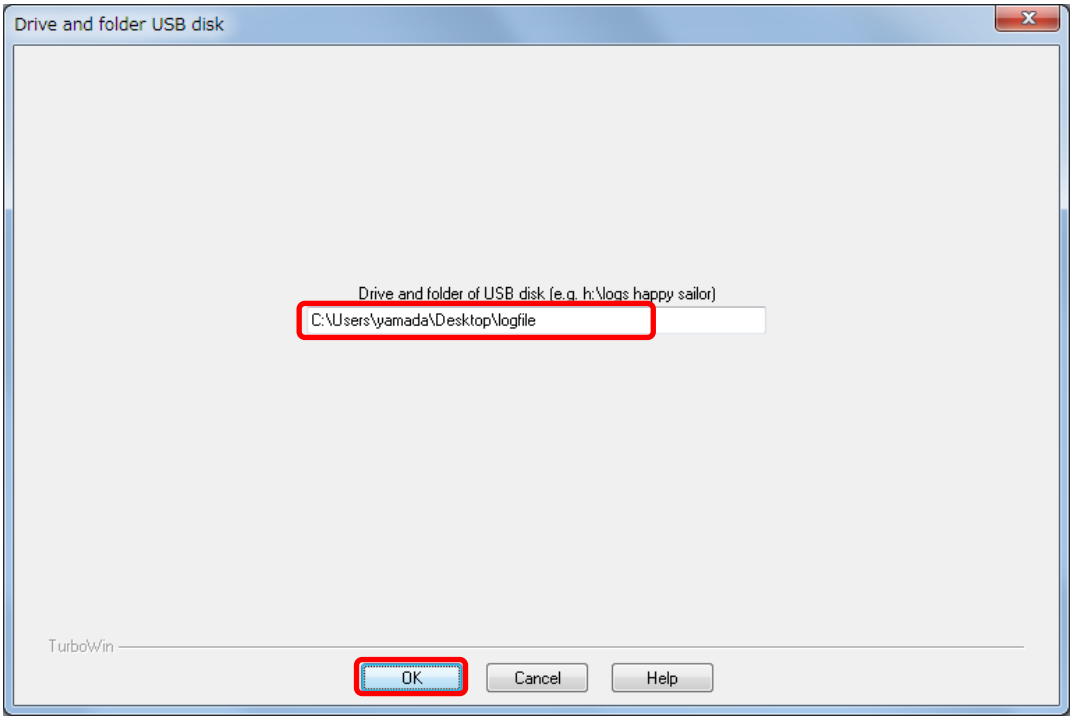
(i) The name of the destination folder for the logbook file will be shown in a dashed line frame.
To change it, click **No**; otherwise, click **Yes** and proceed to (iii).
Nothing will be indicated by default as shown below. Click **No** to specify the folder name.
Note: Any existing file with the same name will be overwritten with the logbook.



(ii) Specify the folder name starting with the drive letter, then click **OK**.

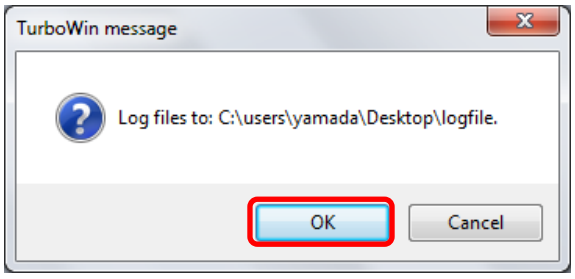
For example, if the logbook file is to be saved in **Users\yamada\Desktop\logfile** on the C drive, enter **C:\Users\yamada\Desktop\logfile**.

For a USB device in the F drive, enter **F:**.

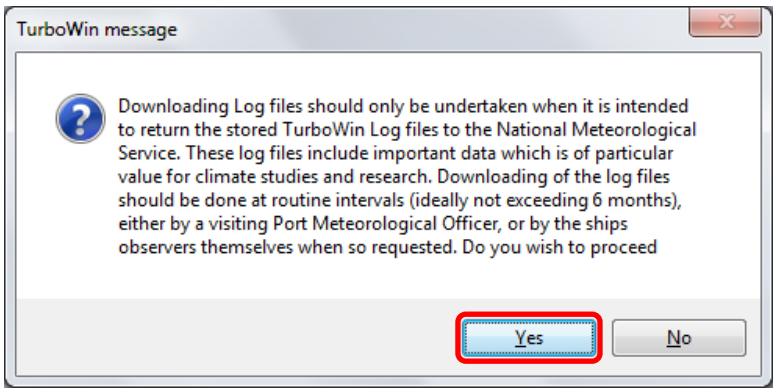


The specified file name will appear by default in future usage.

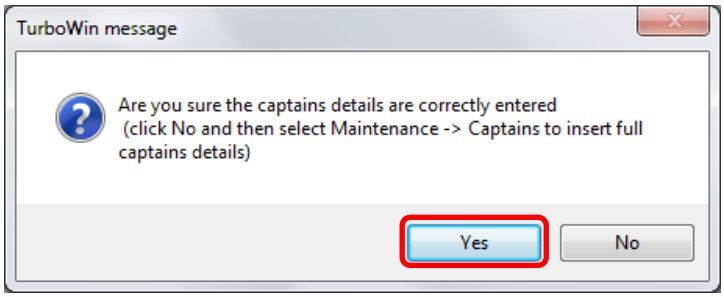
(iii) Click **OK**.



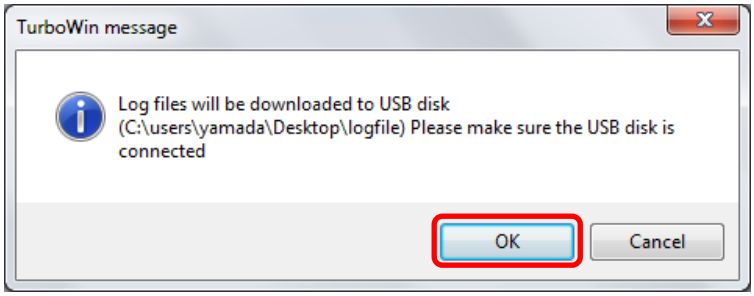
(3) Click **Yes**.



(4) Click **Yes**.



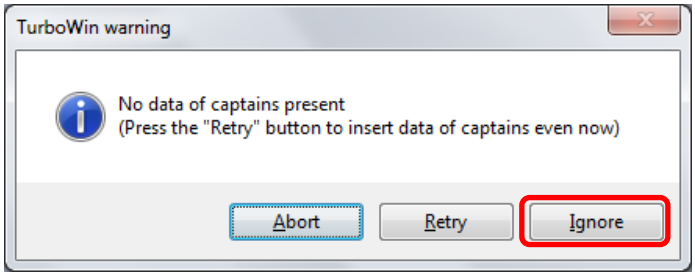
(5) If using a floppy disk, insert a blank disk into the A drive and click **OK**.
If a USB device is specified, connect it to the PC and click **OK**.



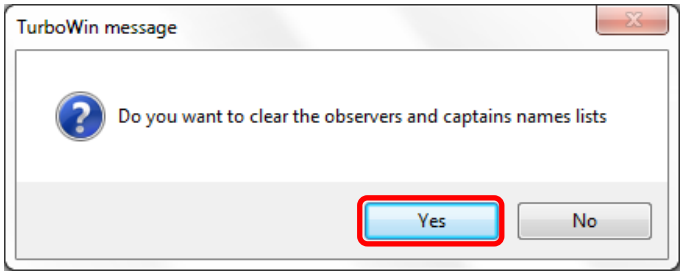
The dialog box on the left will be shown for **Download log files to USB disk**.

(6) Click **Ignore**.

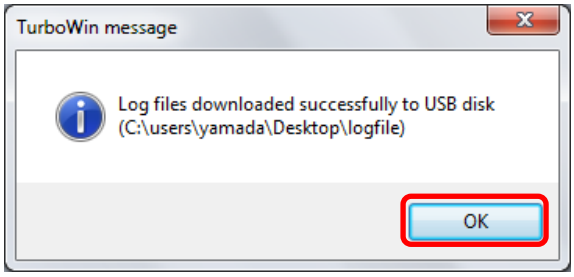
Note: This dialog box may not appear.



(7) Click **Yes**.

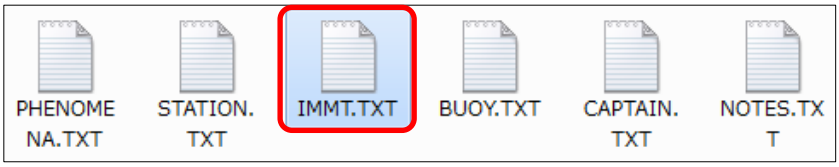


(8) Click **OK**.



(9) Check that six files including the logbook **IMMT.TXT** are saved in the specified folder or on the floppy disk.

Send **IMMT.TXT** to JMA as written below.



Submission of logbook files

Logbook files can be sent via email, floppy disk or CD-R. Port Meteorological Officers (PMOs) visiting ships may also collect logbook files directly.

- Email

  Attach the logbook file to an email and send it to **obsjma@climar.kishou.go.jp**.

- Floppy disk/CD-R

  Save the logbook file to a floppy disk or CD-R and send it to JMA. Floppy disks, CD-Rs and postage-paid envelopes are provided by JMA. The contact information to request such materials is shown on the next page.

Contact

Address for correspondence relating to TurboWin/this publication and requests for 3.5-inch floppy disks, CD-Rs and postage-paid envelopes:

Marine Division
Global Environment and Marine Department
Japan Meteorological Agency (JMA)
1-3-4, Otemachi, Chiyoda-ku, Tokyo 100-8122, Japan

Telephone: +81-3-3212-8341 (ext. 5144)
Fax: +81-3-3211-6908
E-mail: VOS@climar.kishou.go.jp
URL: http://marine.kishou.go.jp/en/index-en.html