

Marine Meteorological Observations and the Services of Port Meteorological Officers

March 2004

Climate and Marine Department, Japan Meteorological Agency (JMA)

Marine meteorological observations and reports from vessels are indispensable for making marine meteorological information such as marine meteorological forecasts and warnings. They are also important to monitor and research the climate change and the global warming.

In transmitting the weather message via INMARSAT, the transmission fee is free of charge as long as you use the special access code "41" which represents weather messages.

World Meteorological Organization (WMO), which is one of the specialized agencies of the United Nations, encourages ships to make meteorological observations and reporting, and calls them "Voluntary Observing Ships (VOSs)".

The figure on the back side of this brochure shows that the main ports in the world where a Port Meteorological Officer appointed. (as of February 10, 2003)

National Meteorological Services (NMSs) appoint Port Meteorological Officers (PMOs) at main ports in their countries. PMOs regularly visit VOSs, check meteorological instruments such as barometer, refill supplies such as logbooks and guides, and give advice on meteorological or oceanographic matters to support VOSs. These services are available free of charge.

In Japan, Port Meteorological Services are provided at Yokohama, Nagoya, Kobe, Hakodate, Maizuru and Nagasaki.

海上気象観測・通報
Marine meteorological observations and reporting

篤志観測船
VOS



港湾気象官
PMO



各国気象機関
NMS

気象情報の提供
Meteorological information



港湾気象官は、篤志観測船と気象機関を結ぶ掛け橋です
PMO is a bridge between VOS and NMS



Barometer Correction Card	
Barometer Number	4772
Instrumental Error	24
Sea Level Correction	2.2 hPa
Date	29 Aug 2003
Port	KOBE
Japan Meteorological Agency	

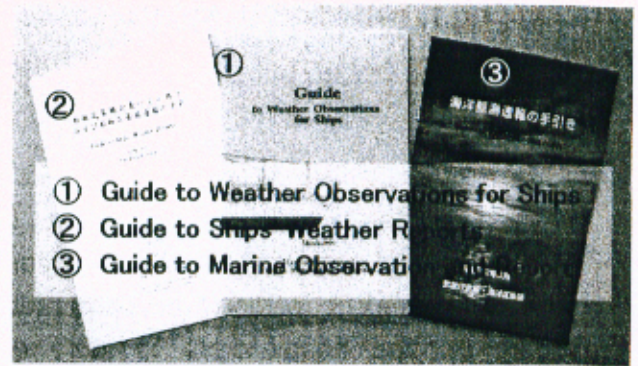
Correction card attached on the barometer on board

Barometer check services

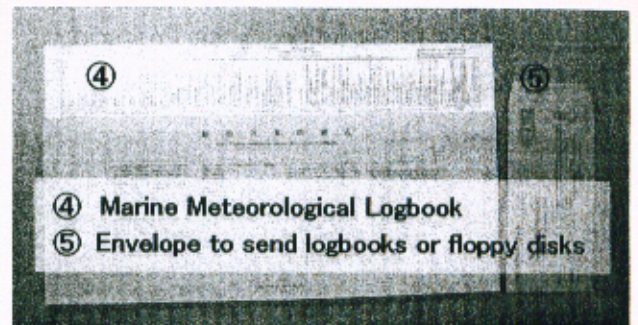
To maintain the accuracy of barometer, 6-monthly check is required. PMOs visit your ship and check your barometers free of charge.

After checking a barometer, PMO put a correction card (picture above) with the total correction value, which consist of barometer instrumental error and correction value to the sea level, on your barometer. You need to add this total correction value to your barometer's value so as to report the air pressure at sea level.

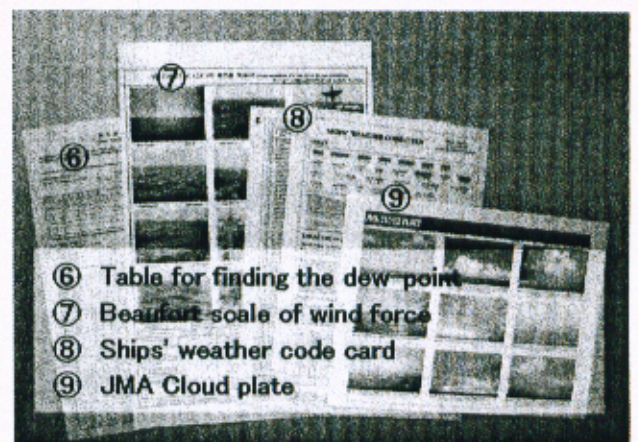
In Japan, PMOs offer the barometer check services using facsimile if it is not possible for your ship to visit the Japanese port where a PMO is appointed. Please send the form to one of the PMOs or Marine Observatories after you have filled in all the necessary information on the given form. The PMO will send you back the result.



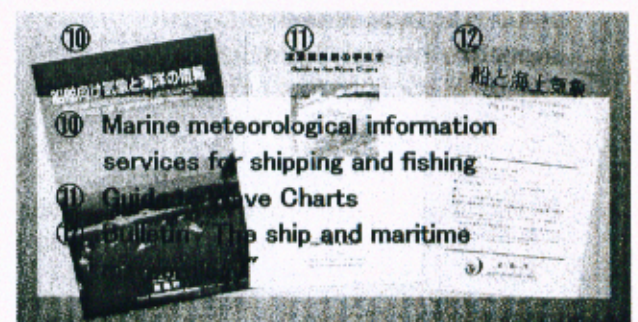
- ① Guide to Weather Observations for Ships
- ② Guide to Ships' Weather Reports
- ③ Guide to Marine Observations



- ④ Marine Meteorological Logbook
- ⑤ Envelope to send logbooks or floppy disks



- ⑥ Table for finding the dew point
- ⑦ Beaufort scale of wind force
- ⑧ Ships' weather code card
- ⑨ JMA Cloud plate

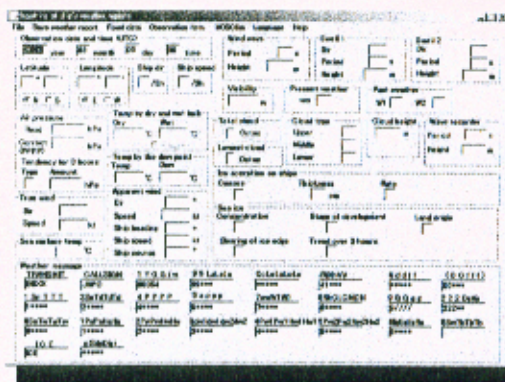


Distribution of guides and logbooks

PMO distributes guides, logbooks and pamphlets of marine meteorological observations and meteorological or oceanographic matters.

JMA distributes software "OBSJMA" which enables to make weather reports on PC easily and accurately. The observation sheet convenient to input the observation data in, and floppy disks to store the electrical logbooks in, and postage-free envelops for sending those floppy disks to JMA are also available on request.

The main screen of OBSJMA



Top page of the website "Ships' Weather Observations/Reports"

We operate a website "Ships' Weather Observations/Reports" on the Internet; <http://marine.kishou.go.jp/VOS> Pamphlets, download of the software "OBSJMA", contact address of worldwide PMOs and links to other NMSS' websites are available on this site.

The ports where port meteorological services available

PMO Yokohama, Yokohama Local Meteorological Observatory
 99, Yamatecho, Naka-ku, Yokohama
 231-0862
 TEL: +81 45 621 1991 FAX: + 81 45 622 3520

PMO Nagoya, Nagoya Local Meteorological Observatory
 2-18, Hiyoricho, Chikusa-ku, Nagoya
 464-0039
 TEL: +81 52 752 6364 FAX: +81 52 762 1242

PMO Kobe, Kobe Marine Observatory
 1-4-3 Wakinohamakaigan-Dori, Chuo-Ku, Kobe
 651-0073
 TEL: +81 78 222 8918 FAX: +81 78 222 8946

Maritime Meteorological Division, Hakodate Marine Observatory
 3-4-4 Mihara, Hakodate 041-0806
 TEL: +81 138 46 2213 FAX: +81 13847 7682

Maritime Meteorological Division, Maizuru Marine Observatory
 901 Shimofukui, Maizuru 624-0946
 TEL: +81 773 76 4114 FAX: +81 773 76 4114

Maritime Meteorological Division, Nagasaki Marine Observatory
 11-51, Minami-yamate, Nagasaki 850-0931
 TEL: +81 95 811 4867 FAX: +81 95 823 8220

EMAIL: pmo@climar.kishou.go.jp (common to all above 6 observatories)

CONTACT

Please contact us for the address below if you have questions about marine meteorological observation or PMO;



Marine Division, Climate and Marine Department, Japan Meteorological Agency
 1-3-4 Otemachi, Chiyoda-ku, Tokyo, Japan 100-8122
 TEL: +81 3 3212 8341 (Ext.5144) FAX: +81 3 3211 6908 EMAIL: VOS@climar.kishou.go.jp

Meteo France QC

【気圧】

METEO FRANCE
VOS QC Statistics

In order to get statistics informations about data provided by Voluntary Observing Ships onto the GTS, please filled up the query form here below and then click on the button "OK".
Last update on February 2nd, 2004.

Only the field "Call Sign" must be filled up (click [here](#) for more details). Default values are used for the other fields.

Call Sign:

Parameter:

Center:

**指定船舶のデータが閲覧
できる**
Questions and comments can be mailed to pierre.bouche@meteo.fr

観測データ
メタデータ

Display VOS

KEIFU MARU
Call sign : JPBN
Research vessel
recruited by Japan
as selected ship
Length : 82 m
Breadth : 13 m
Feeboard : 2 m

QC Statistics - Air Pressure

VOS ship JPBN [info](#)

Date	Origin Code	Centre	Lat	Lon	Mobs	GE	Bias	sd	rms
20030821	ALL	S	CMN	34.1	134.9	355	0	0.1	0.6
20030929	ALL	S	CMN	34.1	134.9	87	0	-0.3	0.6
20031031	ALL	S	CMN	30.7	136.9	66	0	-0.3	0.7
20031127	ALL	S	CMN	34.1	134.9	485	0	-0.1	0.8
20031206	ALL	S	CMN	34.0	134.9	83	0	-0.2	1.1
20040131	ALL	S	CMN	7.4	136.9	303	0	-0.1	0.8

Last position: 7.4 136.9

jaivoscriptpopup(http://vos.monitoring.free.fr/display_vos.php?callchx=JPBN)

インターネット

Meteo France QC

【気圧】

VOS Data and QC plots

Buoy data received on GTS for the past 15 days can be viewed here
Comparisons with model outputs can be seen too
Just fill up the query and click on OK.

Please take care of the results when using the graphs to check VOS ships

The model outputs don't reflect necessarily the truth
VOS data can be significantly different from model outputs in sparse areas, coastal areas (due to local effects), areas with strong gradient.



Call Sign

JPN

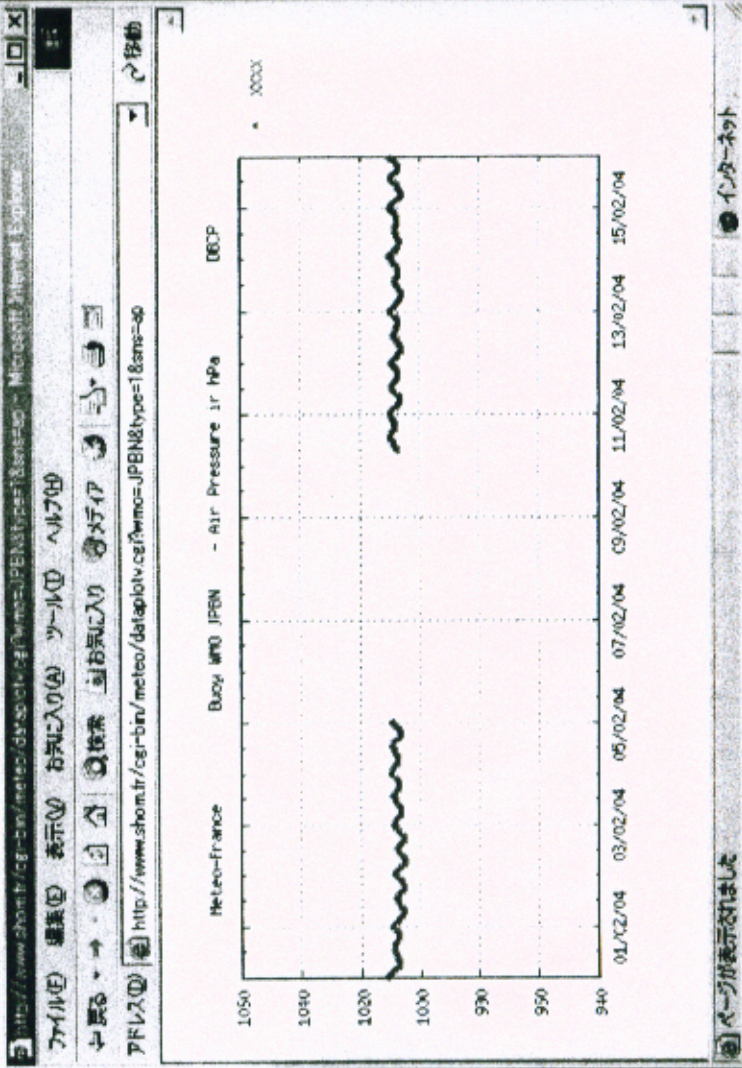
Parameter

Atmospheric Pressure
Air Temperature
Wind Direction

A page with more explanations will be available soon
Please send any questions or comments to marie.beyuch@meteo.fr

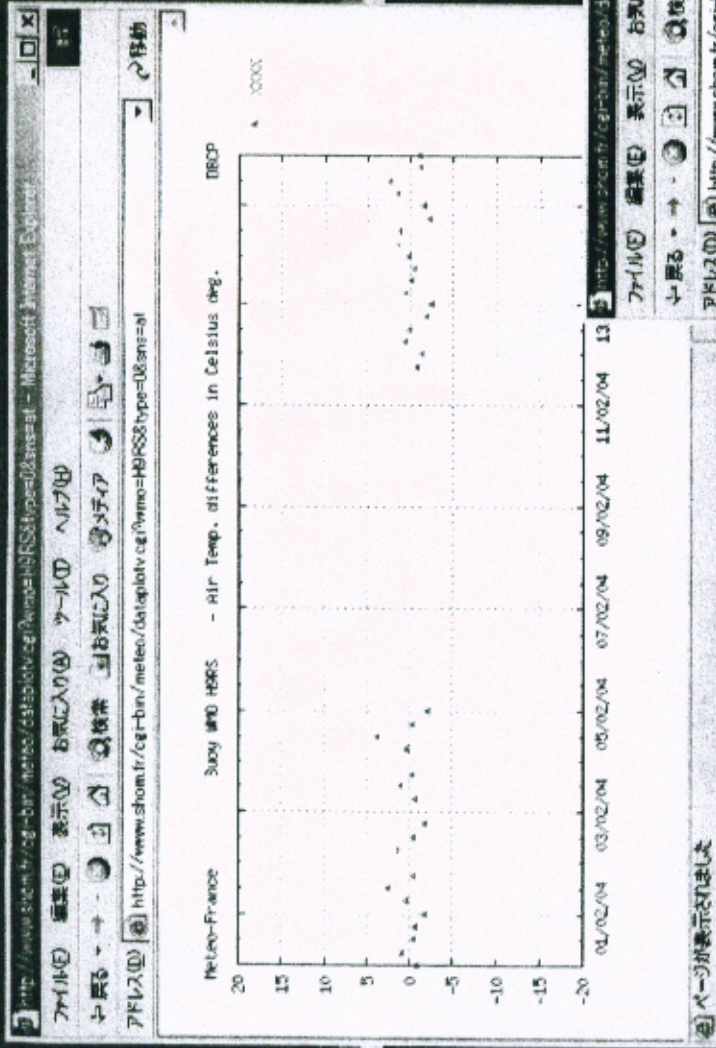
指定船舶のデータが
グラフで閲覧できる
□ 観測データ

Data Plot or QC plot



Meteo France QC

観測値と解析値の
比較データ



【気圧】

H9RS (Sweet Brier)

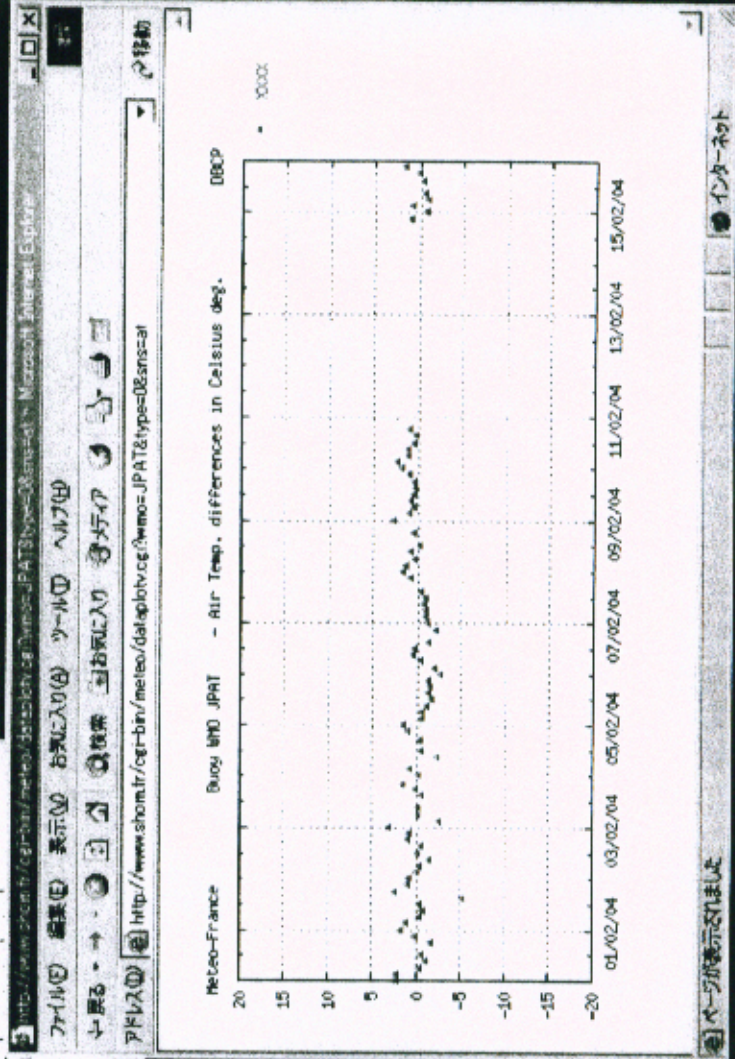
モニタリング船舶

JPAT(海鷹丸)

:1月にカナダのPMOより、

気圧にバイアスが2.5hPaあ



ると指摘があった




Meteo France

<http://www.meteo.shom.fr/vos-monitoring/>

VOS Monitoring - Microsoft Internet Explorer
ファイル 編集 表示 拡張子 新規に開く ツール ヘルプ
戻る 進む 検索 国や地域に切り替え
アドレス <http://www.meteo.shom.fr/vos-monitoring/>



VOS Monitoring

Some tools are available here to monitor the observations carried out by Voluntary Observing Ships inside and outside the EUCOS area of interest 

[VOS information](#) Information on Voluntary Observing Ships indexed into WMO No 47 list. Access to ship characteristics, latest reports, monthly statistics, data and QC plots.

[VOS QC statistics](#) Monthly statistics of comparisons with model outputs. A query form allows to retrieve those of any ship reporting observations on the GTS.

[Data and QC plots](#) Recent ship data (2 past weeks) and results of comparison with Meteo-France model outputs can be seen on graphs. Files are daily updated.

[VOS blacklist for AP](#) Automatically issued every day, a list of VOS ships having reported dubious AP values onto the GTS over the past two weeks. Links allow to carefully check data and positions.

[Obs. counters](#) Counting of observations per ship or country, automated or not, inside or outside the EUCOS area of interest.

<http://www.meteo.shom.fr/qc/tools/rechstatv.htm>

