Intergovernmental Oceanographic Commission

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# Operational Manual Version 1.0 for NEAR-GOOS Data Exchange

## prepared by the NEAR-GOOS Co-ordinating Committee

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# TABLE OF CONTENTS

# OPERATIONAL MANUAL FOR THE NORTH-EAST ASIAN REGIONAL GOOS (NEAR-GOOS) DATA EXCHANGE (version 1.0)

## 1. INTRODUCTION

As a regional pilot project of the Global Ocean Observing System (GOOS), the North-East Asian Regional GOOS (NEAR-GOOS) is being implemented by China, Japan, the Republic of Korea and the Russian Federation. NEAR-GOOS is intended to provide a regional framework for gathering, co-ordinating, and distributing oceanographic data in the North-East Asian region, to enable participating countries to make better use of their investments in ocean observations and research, and to began establishing the Global Ocean Observing System. Oceanographic data and relevant products generated within NEAR-GOOS system will be available free of charge through electronic communications to all forms of marine uses.

A draft Implementation Plan for NEAR-GOOS was prepared by an *ad-hoc* Group and reviewed during the Expanded Experts Meeting for the NEAR-GOOS Implementation Plan. At the third session of the IOC Sub-Commission for the Western Pacific (Tokyo, Japan, 26 February - 1 March 1996), a decision was made to establish a Co-ordinating Committee, composed of members nominated by the governments of the four countries, to further develop the Implementation Plan and prepare an Operational Manual for NEAR-GOOS.

During the first session of the NEAR-GOOS Co-ordinating Committee (Bangkok, Thailand, 4-6 September 1996), the Committee adopted the Implementation Plan for the initial phase of NEAR-GOOS. In the initial phase, two data bases, a Real Time Data Base for daily mapping of sea conditions, and a Delayed Mode Data Base for archiving, are the essential operations of NEAR-GOOS. With generous contributions from the Japan Meteorological Agency (JMA) and the Japan Oceanographic Data Center (JODC), a draft Operational Manual for these data bases has been prepared, and was adopted by the first meeting of the NEAR-GOOS Co-ordinating Committee.

The Operational Manual is subject to changes by the NEAR-GOOS Co-ordinating Committee. Such changes will be notified to all registered users, and the users should make use of the NEAR-GOOS data bases in accordance with the latest version of the Manual.

The Operational Manual can be read via the WWW server for ease of reference.

## 2. OPERATION OF NEAR-GOOS

The NEAR-GOOS Co-ordinating Committee was established as a management body to further develop the Implementation Plan and Operational Manual as required, to monitor the operation of the system, to make necessary recommendations, to advise the participating countries on implementation of NEAR-GOOS and to report to the IOC/WESTPAC Sub-Commission and I-GOOS.

In the initial phase, the oceanographic data collected in the data bases will include temperature, salinity, currents, winds and waves, which will come from oceanographic observations carried out by the participating countries using moored buoys, drifting buoys, towers, coastal stations, research vessels, voluntary observation ships and remote sensing satellites, reported through GTS and Internet.

For effective transmission and exchange of the data in real time and near-real-time, a Real Time Data Base has been created as a bin for on-line access by NEAR-GOOS users via Internet. The data in the data base will be kept for 30 days and then transferred to the Delayed Mode Data Base, which has been established to collect, distribute and maintain the delayed mode data for the use of NEAR-GOOS users.

The IOC Regional Secretariat for WESTPAC provides the necessary Secretariat services for the operation of NEAR-GOOS.

## 3. MANAGEMENT OF NEAR-GOOS DATA BASES

### 3.1 MANAGEMENT OF THE DATA BASES

The NEAR-GOOS data bases, namely the Real Time Data Bases (RTDB), and the Delayed Mode Data Bases (DMDB), as well as Associate Data Bases (ADBs), are accessible, free of charge, to all users who are interested in obtaining the data and/or ready to contribute their data to the data bases. The Japan Meteorological Agency (JMA) and the Japan Oceanographic Data Center (JODC) have agreed to host the RTDB and DMDB respectively. Expenses for computer and telecommunication systems required to access the data bases should be covered by the users.

Participating countries may establish Associate Data Bases(s) to facilitate data exchange. The organizations responsible for the Associate Data Bases should encourage the users in their countries to make their data available to NEAR-GOOS.

Managers for the RTDB and the DMDB should be assigned in JMA and JODC respectively. Under the guidance of the NEAR-GOOS Co-ordinating Committee, particularly the NEAR-GOOS Co-ordinator, the Data Base Managers will assume responsibility for the operation and management of the RTDB and the DMDB, including data input to the data bases, registration of the users, monitoring of the RTDB and the DMDB utilization, and provision of technical advice for further development of NEAR-GOOS data management and collection.

Periodically, the Managers of the data bases should submit reports on the operation of the data bases to the NEAR-GOOS Co-ordinating Committee, with suggestions for further development to improve the system.

The Managers of the data bases will assume no responsibility whatsoever with regard to the use of the data bases and data. Nor will they assume any responsibility for any consequences arising from interruption of data base services due to trouble with or maintenance of the data base servers or the related telecommunication circuit, etc.

## 3.2 USER REGISTRATION

NEAR-GOOS data should be accessible, free of charge, to all users who are interested in obtaining data from and contributing data to the data bases. To ensure the security of the data bases and to maintain their effective utilization, registration is necessary.

Those who are willing to be registered users should submit an application form (Appendix 1) directly, or through the members of the Co-ordinating Committee in the country of the applicant, as requested, to the NEAR-GOOS Co-ordinator with a commitment to respect the rules specified in the Operational Manual. Upon receiving the application, the NEAR-GOOS Co-ordinator will issue the authorization (Appendix 2), with the help of the WESTPAC Secretariat if necessary. A copy of the authorization of the applicant will be sent to the members of Co-ordinating Committee. Registered users can freely access and process the data obtained from the NEAR-GOOS data bases for their own oceanographic services and research. Users are not allowed to further forward the data to a

third party, with or without charge, in the original form or in any other form facilitating the reproduction of the original data, without the authorization of the NEAR-GOOS Co-ordinator.

More than one account name (see Appendix 1) can be issued to one organization or to one password holder from that organization. However, applications for the account names may come only from the password holders identified in the application for access to the NEAR-GOOS data bases.

Registration may be nullified if the user does not fulfil the requirements.

### 3.3 NEAR-GOOS HOMEPAGE

As the main entry of the system, a NEAR-GOOS homepage will be established at the GOOS Project Office of IOC. The homepage will provide information on the development and operation of NEAR-GOOS on its news pages, and will also provide guidance for accessing and contributing oceanographic data to the system. The GOOS Project Office of IOC is responsible for up-dating the homepage in co-operation with, and assisted by contributions from, the NEAR-GOOS Co-ordinating Committee. The current address of the homepage is *http://www.unesco.org/ioc/goos/neargoos.htm*.

However, in order to promote the exchange of oceanographic data, homepages of the data bases will be developed by the respective servers, and include inventories of the data available to the public.

## 4. TECHNICAL MANUAL

### 4.1 REAL TIME DATA BASE (RTDB)

#### 4.1.1 Introduction

Within the framework of NEAR-GOOS, the NEAR-GOOS Real Time Data Base (RTDB) has been established for exchanging oceanographic data on a real time basis for oceanographic services and research. The RTDB collects data exchanged over GTS, and data collected by the participating countries and passed via Internet, and makes them available to users.

The Japan Meteorological Agency (JMA), which operates a Regional Telecommunication Hub (RTH) under the GTS of the WMO as well as a Special Oceanographic Centre (SOC) in the

IOC/WMO Integrated Global Ocean Service System (IGOSS), assumes the responsibility of managing and operating the RTDB.

### 4.1.2 Data Collection and Quality Control

The following data are available in the RTDB:

(i) The oceanographic data within the NEAR-GOOS area collected through GTS in the WMO Codes.

- SHIP
- BUOY
- TRACKOB
- BATHY
- TESAC

(ii) Daily sea-surface temperature analysis by JMA

(iii) Data observed by the participating countries and collected through Internet.

The GTS data are collected by the Computer System for Meteorological Services (COSMETS) of JMA which serves as a RTH under the GTS. The data are transferred from COSMETS to the RTDB every weekday (see Section 4.1.5).

The users of the RTDB are encouraged to contribute their data to the RTDB by transferring data files through Internet. These data are then made available without modification to other users. The data collected via Internet will be transferred to GTS for further distribution unless the providing organization requests the RTDB manager not to do so for some clearly stated reason.

The data in the RTDB will be transferred to the Delayed Mode Data Base operated by the Japan Oceanographic Data Centre, 30 days after they are received by the RTDB.

The RTDB eliminates the duplication of GTS reports within a file (see Section 4.1.4). It should be noted that more than one report of an observation at the same location and at the same time may be left in a file if the contents of the reports are not exactly the same.

No quality control is applied for the moment. The policy and method of quality control will be determined by the NEAR-GOOS Co-ordinating Committee in future, taking into account the purpose of the data usage by various users. The QA/QC procedure will be further studied by the participating countries and the Co-ordinating Committee based on experience obtained from the operation of the system.

### 4.1.3 Data Base Service

*Computer requirement*

A workstation or other computer connected to Internet is required to retrieve data from and contribute data to the RTDB. Software to support the file transfer protocol (ftp) communications is needed.

*Data Retrieval*

A user can retrieve data from the RTDB onto their own computer by ftp (see Appendix 4 for a sample UNIX command sequence). They can also retrieve data by using the support tools of the RTDB WWW server, such as the data list.

The RTDB server has a directory, /pub which contains all the oceanographic data in the RTDB. Under this directory are sub-directories, whose names indicate the name of the data format, such as "ship", "buoy", etc. Data are stored in files under these sub-directories. Each file has a name indicating the date of observation, and the date of reception at the Tokyo RTH, as in the following examples:

/pub/ship/ship.obsJul20.rcvJul21

(the data of the observation made on 20 July which Tokyo RTH received during the 24 hours until 0010 UTC, 21 July reported in the SHIP format)

/pub/jmaabc/jmaabc.obsJul20.jma.north

(the data of the observation made on 20 July reported in the user defined format, JMAABC (a fictitious format name))

/pub/sstanl/sstanl.obsJul20

(SST Analysis data on 20 July)

*Data formats*

Each file contains the data corresponding to the observation date and input date, indicated by its name in the following format.

(i) GTS data

The data are stored in the character code according to the WMO Code, which will be available on the RTDB homepage. A file usually contains more than one report corresponding to the observation date and input date indicated by the file name.

(ii) Non GTS data

The data are made available in the same format that is used by the original users. The explanation for the data formats should be available in the same sub-directories that contain the data, as described in the following paragraphs.

The RTDB manager reviews the technical aspects of the format used in the NEAR-GOOS data bases, and, in consultation with the Co-ordinating Committee, develops formats to facilitate user-friendly data exchange.

*Contribution of data*

Users are expected to contribute oceanographic data to the extent possible for promoting oceanographic data exchange. The RTDB manager prepares a directory with written permission for each user, and the user can send the data files via ftp (Annex 4 (3) for a sample UNIX command sequence) to this directory. Users can also contribute their data by putting them in their server, which is accessible to the RTDB manager via ftp. In this case, the same rules are applied to the names of files and other technical details, and the users have to keep in close communication with the RTDB manager to ensure the smooth transmission of their data.

The data should be contributed in the WMO Code or in the format defined by the user. The RTDB manager transfers the data from the directory with written permission, mentioned above, to the directory that other users can access. The name of the format should be defined in consultation between the user and the RTDB manager, and the document on the format should be made available by sending it to the directory with written permission. The RTDB manager transfers this document to the

directory for access by other users. The data in the directory with written permission will be deleted as soon as they have been transferred to the public directory. The name of the directory with written permission is the same as the account name of that user.

The files that the user transfers to the RTDB server should be named according to the following rule.

*Oceanographic data*

XXX.obsMMMDD.YYY.ZZZ,

where XXX is the format name ('ship', 'buoy', etc., for the WMO Codes, or the name of the user defined format), MMMDD indicates the observation date, YYY is a series of characters that the RTDB manager defines to specify the contributing institute, and ZZZ is used freely by each user to avoid duplicated file names or for other purposes.

Example: jmaabc.obsJul20.jma.north

The data of observation made on 20 July reported in the format, JMAABC (a fictitious format name), "jma" indicating the institute that contributed this data.

*Document of the user defined format*

XXX.doc

XXX is the name of the format. The file should be a text (ASCII) file.

Example: JMAABC.doc

*Password*

When a user accesses the RTDB, a password is needed for the security of the RTDB server. Each user is encouraged to change his password regularly. The password can be changed by the user via telnet (see Annex 4 (5) for a sample UNIX command sequence). Telnet access by RTDB users has been prepared only for the password change, and it automatically logs out as soon as the

password is changed.

*Others*

The RTDB manager monitors RTDB usage including data retrieval and contribution by users, and reports the results periodically to the NEAR-GOOS Co-ordinating Committee.

The RTDB manager will notify users on operational matters, such as a plan for tentative service suspension for maintenance, by putting a notice in a news file accessible by all users. Users can look at this file either via the WWW server or via ftp. The news file also forms as the opening message of the ftp session. The RTDB manager also sends the same news to users by e-mail, but does not confirm reception nor re-transmit in case of communication failure.

### 4.1.4 Operation of the RTDB server

This section describes the operation of the RTDB server for the reference of users. Minor changes may be made to the operation without notifying users when the RTDB manager considers that the changes do not affect the use of the RTDB.

(i) COSMETS and the RTDB Server

JMA operates the Computer System for Meteorological Services (COSMETS) for the collection, processing and distribution of meteorological data. The system consists of an on-line system (Central Automated Data Editing and Switching System (C-ADESS)) for meteorological telecommunications and a batch system (Numerical Analysis and Prediction System (NAPS)) for meteorological data processing. The C-ADESS serves as a RTH in the GTS to exchange data with other national Meteorological Services. C-ADESS exchanges meteorological data with other related centres as well. The data collected by the C-ADESS are passed to the NAPS where they are processed for various JMA services such as numerical weather prediction and oceanographic services.

Since currently there is no on-line link between the COSMETS and the RTDB server for security reasons, the oceanographic data are transferred manually using magnetic optical disks from the COSMETS to the RTDB server. JMA has a plan to have a highly secured on-line link between the two systems, and when they are connected the data transfer will be done automatically every day including holidays.

(ii) Reliability

The RTDB server is composed of two workstations sharing a highly reliable hard disk system and operates on a 24 hour basis. The two workstations are identical and back up each other to enhance the reliability of the RTDB server. However, software troubles common to both workstations, including troubles in the backup function itself and other troubles, may cause unexpected suspension of the RTDB services. In these cases, the RTDB manager will make every effort to resume the RTDB function as soon as possible, though the measures are usually taken within the normal working hours. It should be noted that the RTDB is not under continuous watch, which may cause some delay in detecting problems.

## 4.2 NEAR-GOOS DELAYED MODE DATA BASE

After 30 days, the data will be transferred from RTDB to the Delayed Mode Data Base (DMDB) and this section prescribes the DMDB operation method.

### 4.2.1 Available data

(1) Data available through RTDB (transferred to DMDB 30 days after they were received by RTDB)

(i) Following data obtained through WMO report system: SHIP, BUOY, TRACKOB, BATHY, TESAC;
(ii) Daily water temperature at the sea surface;
(iii) Data reported to RTDB from participating institutions of NEAR-GOOS via Internet;

(2) Data directly sent to DMDB

Detailed oceanographic data, such as temperature and salinity at every 2 db from CTD casts and records of moored current meters, etc.

### 4.2.2 Structure of DMDB

The DMDB will be controlled by the NEAR-GOOS directory in the WWW server (J-DOSS) operated by JODC. Data transferred to DMDB from RTDB after a lapse of 30 days will be listed

in DMDB every month. Data will be brought together for each data item in one file per month according to the dates on which they were received. Data such as SHIP, BUOY, TRACKOB, BATHY and TESAC will be brought together in a file every month and stored in DMDB in chronological order in each file name. The format of each data will be basically the same as the format of RTDB data, and the components will not be edited. Files will be identified by file names, examples of which are given below:

1996_07.bathy: Bathy data RTDB received in July 1996
1996_07.buoy: Buoy data RTDB received in July 1996
1996_07.ship: Ship data RTDB received in July 1996
1996_07.tesac: Tesac data RTDB received in July 1996
1996_07.trackob: Trackob data RTDB received in July 1996

### 4.2.3 How to use DMDB

A browser that provides interface to the WWW operating on Internet is required to obtain data stored in the DMDB. To access data, users can login the WWW server of JODC from their own computers linked to Internet, and transfer data to their own computers using the file transfer function of the WWW browser.

Notices to users from the Manager regarding the operation of the DMDB, such as temporary suspension of service, etc. shall, in principle, be made in the form of announcements in the notice file provided on J-DOSS.

## Appendix 1

## Form of Application for Access to the NEAR-GOOS Data Base

(Date, Place)

For the attention of
the NEAR-GOOS Co-ordinator

I apply for access to the NEAR-GOOS Data Base.

1. Name of the organization
2. Address of the organization
3. Purpose of the use of the Data Base
4. Names of password holders authorized to apply for account in the Data Base
5. Oceanographic Data in the organization
6. The data from the answer to 5. that will be exchanged through the Data Base.

Once authorized, I shall use the Data Base according to the NEAR-GOOS Operational Manual.

SIGNATURE

(Director of the Organization)

cc: NEAR-GOOS Real Time Data Base Manager
NEAR-GOOS Delayed Mode Data Base Manager
IOC Regional Secretariat for WESTPAC

## Appendix 2

## Letter of Acceptance for Access to the NEAR-GOOS Data Base

(Date, Place)

For the attention of
the Director of Organization

I am pleased to inform you that your application for access to the NEAR-GOOS Data Base has been accepted. You are authorized to use the Data Base according to the Operational Manual.

For access to the RTDB and the DMDB, you should please contact the data base managers of the RTDB and/or the DMDB using the attached form: IP address of the user's computer, account name, password and other necessary technical information should be specified in the form. You should send the form together with a copy of this letter of acceptance to the managers of the data bases, by post, not by e-mail, considering the security. You will thereafter receive a notification from the managers.

SIGNATURE

NEAR-GOOS Co-ordinator

cc: NEAR-GOOS Real Time Data Base Manager
NEAR-GOOS Delayed Mode Data Base Manager
Members of the Co-ordinating Committee from applicant=s country

## Appendix 3

## Form of the Request for the Registration

(Date, Place)

For the attention of
the NEAR-GOOS Data Base Manager

I request registration of my organization in the NEAR-GOOS Data Base. The required technical information is as follows. Attached to this letter is a copy of the Letter of Acceptance of Access to the NEAR-GOOS Data Base.

1. Name of organization and country
2. Contact person
3. E-mail address of the contact person (the completion of the registration will be notified to the contact person at this address)
4. IP address of the computer for the access to the Data Base
5. Account name
6. Password
7. Type of computer and operational system used for the access
8. Expected amount of the data per month that are transmitted to the data base (in kilobyte)

SIGNATURE

## Appendix 4

## Sample UNIX Command Sequence for Retrieving Data from the Real Time Data Base

The following examples are command sequences and the responses from the Data Base server when you retrieve data, contribute data and change your password. In the samples, **bold** texts indicate the commands that you have to key in, and *italic* texts are comments or other instructions. The other texts in the sequences are responses that you see on the display. "test@cc:~ $" is used here as a unix command prompt and "ftp>" is the prompt for ftp commands.

(1) To open ftp session

test@cc:~ **$ftp goos.kishou.go.jp**
220- Welcome to the NEAR-GOOS Real Time Database Ftp Service.
220- For further information on the access to this database,
220- please see;
220-
220- http:goos.kishou.go.jp
220-
220- Please input loginname and password.
220- Anonymous Ftp Service is not running.
220-
220-
220-
220- goosa FTP server ready.
220-

Name (goosa:admin): **jmauser** *(Type your account name)*
331- Password required for jmauser.
331-- @ @
331 \( - )/ -- { connected to "goos.kishou.go.jp" }
Password: ***(Type your password. This is not shown on the display)***
230- Welcome to NEAR-GOOS Real Time Database
230- at the Japan Meteorological Agency !!
230-
230- For your reference, README contains some technical details on the
230- file system for this database. Any questions, suggestions and comments
230- on this database should be addressed to
230- neargoos@umi.hq.kishou.go.jp
230-
230- Database Server NEWS:
230- ----------
230- The database is not operational yet. We would appreciate your patience.
230-
230- (Operational news of the Data Base server is seen here)
230-
230-
230-

230- ----------
230-
230 User jmauser logged in. Access restrictions apply.
ftp>

(2) To retrieve data

(2-1) To get a file ("ship.obsDay14.rcvJul15" for example)

ftp> **cd /pub/ship** *(cd /pub/buoy for buoy data, etc.)*
250 CWD command successful.
ftp>
ftp> **as** *(When you retrieve a binary file, type "bi")*
200 Type set to A.
ftp> **get ship.obsDay14.rcvJul15**
200 PORT command successful (translated to PASV by DeleGate).
150 Opening ASCII mode data connection for ship.obsDay14.rcvJul15 (751627 bytes).
226 Transfer complete.
local: ship.obsDay14.rcvJul15 remote: ship.obsDay14.rcvJul15
767460 bytes received in 4.4 seconds (1.7e+02 Kbytes/s)

(2-2) To get more than one files using a wild card (to get all the ship data of the observation made on the 13th day of the month for example)

ftp> **cd /pub/ship** *(cd /pub/buoy for buoy data, etc.)*
250 CWD command successful.
ftp> **as** *(When you retrieve a binary file, type "bi")*
200 Type set to A.
ftp> **mget ship.obsDay13.***
mget ship.obsDay13.rcvJul13? **y**
200 PORT command successful (translated to PASV by DeleGate).
150 Opening ASCII mode data connection for ship.obsDay13.rcvJul13 (6107 bytes).
226 Transfer complete.
local: ship.obsDay13.rcvJul13 remote: ship.obsDay13.rcvJul13
6237 bytes received in 0.15 seconds (42 Kbytes/s)
mget ship.obsDay13.rcvJul14? **y**
200 PORT command successful (translated to PASV by DeleGate).
150 Opening ASCII mode data connection for ship.obsDay13.rcvJul14 (760709 bytes).
226 Transfer complete.
local: ship.obsDay13.rcvJul14 remote: ship.obsDay13.rcvJul14
776776 bytes received in 4.8 seconds (1.6e+02 Kbytes/s)
mget ship.obsDay13.rcvJul15? **y**
200 PORT command successful (translated to PASV by DeleGate).
150 Opening ASCII mode data connection for ship.obsDay13.rcvJul15 (10091 bytes).
226 Transfer complete.
local: ship.obsDay13.rcvJul15 remote: ship.obsDay13.rcvJul15
10302 bytes received in 0.07 seconds (1.4e+02 Kbytes/s)

(3) To send data

Change the current directory of your computer to the directory bearing the files to be transmitted before you start ftp.

When you start the ftp, your current directory (in the Data Base server) is the directory with written permission to which you can send files. If you have changed the current directory, use 'cd' to change the current directory to the directory with write permission (the name of directory is the same as your account name) before you start the following sequence.

(3-1) To send a text file (jmaabc.obsJul20.jma.north, for example)

```
ftp>    as
200     Type set to A.
ftp>    put jmaabc.obsJul20.jma.north
200     PORT command successful.
150     Opening ASCII mode data connection for jmaabc.obsJul20.jma.north.
226     Transfer complete.
local:  jmaabc.obsJul20.jma.north remote: jmaabc.obsJul20.jma.north
12 bytes sent in 0.00093 seconds (13 Kbytes/s)
ftp>
```

(3-2) To send a binary file (jmaxyz.obsAug10.jma.sample, for example)

```
ftp>    bi
200     Type set to I.
ftp> <B>put jmaxyz.obsAug10.jma.sample
200     PORT command successful.
150     Opening BINARY mode data connection for jmaxyz.obsAug10.jma.sample.
226     Transfer complete.
local:  jmaxyz.obsAug10.jma.sample remote: jmaxyz.obsAug10.jma.sample
11 bytes sent in 0.00027 seconds (40 Kbytes/s)
```

(3-3) To send more than one files using wild card (all the files whose name start with 'jmaxyz.', for example, in the current directory of your computer)

```
ftp>    mput jmaxyz.*
mput jmaxyz.obsAug10.jma.sample1? y
200     PORT command successful.
150     Opening BINARY mode data connection for jmaxyz.obsAug10.jma.sample1.
226     Transfer complete.
local:  jmaxyz.obsAug10.jma.sample1 remote: jmaxyz.obsAug10.jma.sample1
11 bytes sent in 0.00027 seconds (40 Kbytes/s)
mput jmaxyz.obsAug10.jma.sample2? y
200     PORT command successful.
150     Opening BINARY mode data connection for jmaxyz.obsAug10.jma.sample2.
226     Transfer complete.
local:  jmaxyz.obsAug10.jma.sample2 remote: jmaxyz.obsAug10.jma.sample2
11 bytes sent in 0.00021 seconds (52 Kbytes/s)
ftp>
```

(4) To finish ftp

```
ftp>    bye
test@cc:~ $
```

(5) To change your password

```
test@cc:~ $ telnet goos.kishou.go.jp
Trying 172.17.253.253 ...
Connected to goos.kishou.go.jp
Escape character is '^]'.

SunOS UNIX

login: jmauser
Password: (enter your current password)
Last login: Mon Jun  3 16:17:24 from goosb
SunOS Release 4.1.3-JLE1.1.3_U1 (BQE_HA-MO) #1: Fri May 10 12:23:32 JST 1996
```

Changing password for jmauser on goosa.
Old password: ***(enter your old password.)***
(Password is not shown on the display
New password:***(enter your new password.)***
Retype new password:(retype your new password for confirmation)
Connection closed by foreign host.
test@cc:~ $

## Appendix 5

## FUNCTION OF ASSOCIATE DATABASES

The Associate Databases, as defined in the present version of the Operational Manual, play an essential role in facilitating the data exchange. The Associate Data Bases should retrieve the data from the data producers in the country, and make them available to the NEAR-GOOS community. Associate Databases may also retrieve data from other databases so that the users in the country can access the data more efficiently without access to all the data producers. The procedures with regard to the establishment of Associate Databases or National Databases should be defined by the member country.

To reflect the importance of such databases, the terminology to refer to them may have to be changed during the revision of the Operational Manual in the near future.