CGMS-XXVII JPN-WP-11
Prepared by Japan
Agenda Item H.3

METEOROLOGICAL DATA DISSEMINATION USING THE LRIT FUNCTION

This document reports transmission of meteorological data and products to national Meteorological Services from JMA using LRIT function

Meteorological Data Dissemination using the LRIT function

1 Transmission of meteorological data/products

JMA will transmit meteorological data and products including gridded data of JMA's Numerical Weather Prediction, observations and typhoon advisories using the LRIT function for the use of national Meteorological Services (NMSs) in Asia and the Pacific region. The meteorological data and products will be encrypted, as they are for NMSs exclusive use. Attachment 11-1 shows the contents of LRIT meteorological data. LRIT meteorological data and images will be transmitted when WEFAX is not disseminated.

The access of NMSs to LRIT meteorological data and products will be permitted upon the conclusion of a bilateral agreement between JMA and the NMS concerned.

2 Provision of software to display LRIT data

JMA will provide software to display LRIT data for NMSs upon request to facilitate the use of LRIT data. The software is based on the CAL (Computer Aided Learning) software, which has been developed and used for the training of satellite image analysis in JMA. It is expected that the software will be developed by the end of 1999.

Functions of the software are as follows;

- to decode meteorological data,
- to superimpose meteorological fields on a satellite image,
- to display meteorological fields on horizontal planes and vertical sections,
- to display animations,
- to select the display area and elements.

List of meteorological data/products to be disseminated by LRIT

1 Gridded data of JMA's global NWP model

Area		Global area	20S-60N,60E-160W
Resolution		1.25×1.25 deg. Thinned grid	1.25×1.25 deg. Latitude/longitude
Level & Elements		Surface (P,U,V,T,RH,R) 850hPa (Z,U,V,T,RH,ω,ψ,χ) 700hPa (Z,U,V,T,RH,ω) 500hPa (Z,U,V,T,RH,ζ) 300hPa (Z,U,V,T,RH) 250hPa (Z,U,V,T) 200hPa (Z,U,V,T,ψ,χ) 100hPa (Z,U,V,T)	Surface (P,U,V,T,TTd,R) 1000hPa (Z,U,V,T,TTd) 925hPa (Z,U,V,T,TTd,ω) 850hPa (Z,U,V,T,TTd,ω,ψ,χ) 700hPa (Z,U,V,T,TTd,ω) 500hPa (Z,U,V,T,TTd,ζ) 400hPa (Z,U,V,T,TTd) 300hPa (Z,U,V,T,TTd) 250hPa (Z,U,V,T) 200hPa (Z,U,V,T,ψ,χ) 150hPa (Z,U,V,T) 100hPa (Z,U,V,T)
FCST Hours	00UTC	Initial, 12～36 (every 6 hours), 48, 72	Initial～72 (every 6 hours)
	12UTC	Initial, 12～36 (every 6 hours) 48～192 (every 24 hours)	Initial～72 (every 6 hours)
Approximate Total Volume		00UTC:359 bulletins/13.8MB 12UTC:584 bulletins/22.5MB	00UTC:844 bulletins/9.3MB 12UTC:844 bulletins/9.3MB

Figure 1 Gridded data of JMA's global NWP model

Note 1
P : pressure reduced to MSL
U : u-component of wind
T : temperature
RH : relative humidity
ψ : stream function
ζ : relative vorticity
Z : geopotential height
V : v-component of wind
TTd : dew point depression
R : total precipitation
χ : velocity potential
ω : vertical velocity

Note 2 Initial of R(total precipitation) are not available.

Note 3 thinned grid : The same grid as the WAFC (World Area Forecast Center) satellite broadcast data. (Please request JMA for details of this format.)

2 Gridded data of JMA's global wave model

Area		Global
Resolution		2.5×2.5 deg. Latitude/longitude
Level & Elements		Wave height Wave period Prevailing wave direction
FCST Hours	00UTC	Initial～72 (every 6 hours)
	12UTC	Initial～72 (every 6 hours) 96～192 (every 24 hours)

Approximate Total Volume	00UTC:546KB 12UTC:756KB

Figure 2 Gridded data of JMA's global model

3 Advisories on tropical cyclones

Satellite Analyses (SAREP)（TCNA20/TCNA21 RJTD）
RSMC Tropical Cyclone Advisory（WTPQ20～25 RJTD）
RSMC Guidance for Forecast（FXPQ20～25 RJTD）
Prognostic Reasoning（WTPQ30～35 RJTD）
RSMC Tropical Cyclone Best Track（AXPQ20 RJTD）
Tropical Cyclone Advisory for SIGMET（FKPQ30～35 RJTD）
Typhoon Analyses（ISXC40 RJTD）
Wind vectors around the center of a tropical cyclone in BUFR format prepared by JMA（IUTC40 RJTD）

4 Observational data

SYNOP，SHIP reports that are exchanged on GTS
TEMP，PILOT reports that are exchanged on GTS
Gridded data of VISSR TBB in GRIB format prepared by JMA
SATOB reports prepared by JMA