

WORLD METEOROLOGICAL ORGANIZATION

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RA-V WORKING GROUP ON THE PLANNING
AND IMPLEMENTATION OF THE WWW

ITEM: 6.4

THIRD MEETING
SYDNEY, 3 to 7 DECEMBER 2001

ENGLISH ONLY

Regional Aspects of the Global Data Processing and Forecasting System
(Submitted by the Secretariat)

Implementation

1. GDPS centres in the Region are still enhancing and improving their forecasting systems and/or computer facilities. WMC Melbourne and NMC Singapore (also ASMC: ASEAN Special Meteorological Centre) are running global models. WMC Melbourne is running a global model (GASP) T239L29, limited area models over Australia (over Tropics and extra-Tropics) and a meso-scale model over some part of Australia, with resolution of 0.05°. WMC Melbourne is now running operationally an Ensemble Prediction System (T119L19) with 32 members up to 10 days. A coupled model T47L17 with ocean model ACOML is running up to 8 months with 10 ensemble members. Singapore is running a global model at 1.875° resolution and two limited area models (127 km and 63-km resolution).

Regional Specialized Meteorological Centres *with geographical specialization*

2. The RSMCs with geographical specialization, Darwin, Melbourne, and Wellington, provide regional products to assist NMCs in the forecasting of small, meso and large-scale meteorological systems. Details on data processing and forecasting systems and computing equipment's are given in the WWW twentieth status report on implementation (2001) and accessible on the WMO web site at:

<http://www.wmo.ch/web/www/20th-Status-report/Chapter5txtE.pdf>

<http://www.wmo.ch/web/www/20th-Status-report/TypesModels.html>

<http://www.wmo.ch/web/www/20th-Status-report/TypesComputers.html>

Regional Specialized Meteorological Centres *with activity specialization*

Provision of transport model products for environmental emergency responses

3. RSMC Melbourne designated for the provision of transport model products in case of nuclear emergencies has implemented the regional and global arrangements for the provision of products. Melbourne provides, upon request, specialized transport/dispersion/deposition model products in accordance with Appendices I.3 and II.7 to the Manual on the GDPS. Melbourne is also a Volcanic Ash Advisory

Centres and provides ash clouds trajectories and dispersion forecast for aviation. During the fire alert of last El Nino period, Melbourne and Singapore provided useful products to affected countries in Tropical South- West Pacific.

For tropical cyclone forecasting

4. RSMCs Hawaii has been designated for tropical cyclone forecasting and provides tropical cyclone forecasts for the Pacific from 140 to 180°W, from the equator upwards. RSMC Nadi has fully upgraded its capabilities (telecommunications, satellite imagery and data processing) and is now fully operational to provide tropical cyclone forecasts over its area of responsibility. Steady progress are observed in all centres for the tropical cyclone track forecasting, but much more remains to be done with respect to forecasting the intensity of cyclones. Statistical models supplement the results of the numerical models.

National Meteorological Centres

5. NMCs receive products by GTS and also by satellite dissemination systems (e.g. ISCS from WAFS Centre, Washington, USA; EDWIN system from Hawaii). Many NMCs have now access in addition to GTS and satellite dissemination, in non-operational and non-real time mode, to selected GDPS products on the INTERNET as made available by some GDPS centres.

ISSUES

6. The meeting should address capacity building issues related to assuring availability of internet, web technology and processing and post processing equipment and facilities at NMCs for:

- Accessing EPS products including medium-range severe weather occurrence guidance and Long-range forecast products which are or will become available at web sites of major Data processing and Forecasting Centres either on a routine basis or in scheduled quasi operational basis.
- Accessing subject to notice of transport and dispersion model products for response to nuclear incident and other emergencies such as large-scale forest fire haze.
- implementation and operation at NMCs of relevant re-locatable models for response to chemical and bio-terrorism disease spores incidents
- Establishing strong collaborative linkage between the MNHS and national disaster management Agency and assure mechanisms are put in place for co-ordinated community response to severe weather forecasts and warnings