

WWW TECHNICAL PROGRESS REPORT ON GLOBAL DATA PROCESSING SYSTEM (GDPS) FOR THE YEAR 2000

State of Qatar

Meteorological Services

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1. Summary of highlights:

The Department of Civil Aviation and Meteorology, State of Qatar, since its inception in 1962, is responsible for all service and research activities in the field of meteorology. The data processing is being done by a main frame computing system which is connected to Meteorological Data Distribution (MDD) system. This is in turn connected to other PC based systems at different offices including the Main Forecasting Centre at Doha. Efforts are under way to augment the Centre with a satellite-based system (SADIS).

2. Equipment in use:

The data processing centre is equipped with Data General MV - 9600 computer system with all necessary message switching systems connected to it. This mainframe computer is networked with many other PC based systems at various locations. It is proposed to upgrade the system for its use in TCP/IP mode. ORGIN 2000 and OCTANE systems of Silicon Graphics are being used for research efforts in the field of numerical weather and wave forecasting.

3. Data and products from GTS in use:

All the basic data for routine operational requirement (SYNOP, TEMP etc.) and numerical weather prediction (NWP) products (GRID, GRIB) are being received regularly through RTH-Jeddah and being utilised. Though NWP products are not received currently from any of the GDPS centres of RA II, but they are received regularly from ECMWF, UKMO and Meteo-France via MDD system and put to use. National Centre For Medium Range Weather Forecasting, New Delhi has agreed to extend their support to us by providing their products on a real time basis and boundary conditions for the proposed modeling efforts.

4. Data input system:

Fully automatic system is in use.

5. Quality Control system:

All surface observations are subjected to automatic quality control checks by standard procedures. However, in case of any errors in messages, on rare occasions, human intervention is made to set it right.

6. Monitoring of the Observing System:

Surface observations are monitored at national level and upper air observations are monitored at regional level.

7. Forecasting System:

At present, no NWP model is run on operational basis. The forecasting services, are therefore, mainly based on synoptic analysis and interpretation & statistical methods in conjunction with the NWP products received from ECMWF, UKMO and Meteo-France through MDD.

8. Verification of prognostic products:

Verification of all forecasts issued is made regularly for internal use in the department i.e., by the forecasters and other personnel working in operations.

9. Plans for the future:

Plans are under way to implement a satellite-based system (SADIS) for improving weather services in the state. It is also proposed to test the numerical models of weather forecasting and wave forecasting for the Gulf region. It will be on research mode initially and then on experimental basis later. Unified Model of the UK Meteorological Office and ~~WAM model of the Max-Planck Institute fur Meteorologie (Germany)~~ are proposed to be utilised for weather and wave model studies respectively.