WORLD METEOROLOGICAL ORGANIZATION

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INTER-PROGRAMME TASK TEAM ON
FUTURE WMO INFORMATION SYSTEMS

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Report of preliminary trial of data distribution using IDD

(Submitted by Deutscher Wetterdienst (DWD))

1. Aim

It was originally planned at the ITT-FWIS-3 to test IDD with satellite data sent by the UK Met Office. Due to internal problems there, it was not possible to set up the test so far. Therefore, DWD decided to test at least if the Internet can be used to transmit WMO data with LDM, the basic software of IDD.

2.Setting up the Test

The LDM Software source package (ldm-5.2.tar) was downloaded from Unidata (ftp://ftp.unidata.ucar.edu/pub/ldm5/) and compiled on a PC (Pentium II 350 Mhz, 256MB Ram) with SuSE Linux 7.0 (kernel 2.2.19) without any problems. To setup LDM root priviledges are required to create certain directories in /var. Then the portmapper had to be started since LDM communicates via RPC. Next, it was necessary to contact Unidata to find out the hostname of the server that would allow to retrieve data. The DWD firewall had then to be opened to this host for the port 113 and 388 to be able to receive data. LDM stores all data that it receives in one big file (400 MB). There are several tools to retrieve the products from the queue to store them as a separate file for further processing.

3.Test Run

The test was run from 9th to the 16th September 2002 with the following volume:

Date	Number of Products	Number of Kilobytes
09/09/02	120391	136967
09/10/02	184556	212447
09/11/02	166974	198334
09/12/02	158435	188720
09/13/02	167290	194663
09/14/02	169630	197641
09/15/02	172397	196692
09/16/02	173314	198298

A small part of the data received was send to the DWD MSS to verify the syntax of the WMO messages.

4. Conclusion

During the whole test run only minor problems (like ldm sometimes did not shutdown, some process kept on running) were observed and the daily feed of nearly 200 MB was always received. However, it was not possible to check if all data that was sent was really received, since it was not known precisely what was actually sent. Another problem is that the test was too short to arrive at a final conclusion.

A definite disadvantage of LDM is that it uses its own proprietary protocol to transmit data, now one always has to configure both the client and the server. This would not be necessary when one used a standard protocol like FTP, since most systems come preconfigured with a FTP-server.

It is planned in the near future to carry out the IDD test as originally planned and to gain some operational experience with 'real' data.