



### **0.0.1 Internet Data Distribution - Extending Real-Time Data Sharing throughout the Americas**

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The Unidata Program Center (UPC) of the University Corporation of Atmospheric Research (UCAR) is involved in three international collaborations whose goals are extension of real-time data delivery to and sharing of datasets held locally by educational institutions throughout the Americas. These efforts are based on the use of the UPC's Internet Data Distribution (**IDD**) system which has been built on top of its proven **LDM-6** technology. The Unidata **IDD**, which has been the primary source of real-time meteorological data for the US university community for over 10 years, represents a collaboration of over 150 mostly North American institutions of higher education. In addition to providing a highly reliable mechanism for delivering real-time atmospheric science data, the **IDD** allows any user to easily share datasets that they hold locally.

A collaboration among the UPC, Brazil's Centro de Previsão de Tempo e Estudos Climáticos (CPTEC, a division of INPE), the Universidade Federal do Rio de Janeiro (UFRJ), and the Universidade de São Paulo (USP) has resulted in the creation of a Brazilian peer of the North American **IDD**, the **IDD-Brasil**. A similar collaboration among the UPC, the Universidad de Costa Rica (UCR), and the University of Puerto Rico at Mayaguez (UPRM) is working to extend **IDD** sharing throughout Central America and the Caribbean. A collaboration with the World Meteorological Organization (WMO) Regional Meteorological Training Center (RMTTC) in Barbados, the

Caribbean Institute for Meteorology and Hydrology (CIMH), has been launched to investigate the expansion of **IDD** data sharing throughout Caribbean RMTC member countries. These last two efforts are aimed at the creation of a Central American peer of the North American **IDD**, the **IDD-Caribe**. In addition, efforts aimed at creating a data sharing network for researchers on the Antarctic continent, the **IDD-Antarctic**, have recently begun.

The two year old **IDD-Brasil** and incipient **IDD-Caribe** are now delivering, in near real-time, the full set of Global Telecommunications System (GTS) observations and NCEP and UK MET global model output available in the US NOAAPORT data stream, and all GOES-East imager channels to top level relay nodes hosted at prominent national universities and research institutes. The most active of these efforts, the **IDD-Brasil**, is relaying data to a rapidly growing community of university users in Brazil, Portugal, and Argentina. The **IDD-Brasil** is also being used to share Brazilian mesonet data that are not available through the GTS or other means. Soon local, regional, countrywide, and global model output produced by one or more of the CPEC, the UFRJ, and the USP will also be made available on the **IDD-Brasil**.

It is envisioned that the data sharing capabilities available in the North American **IDD**, the **IDD-Brasil**, and the **IDD-Caribe** will help foster new collaborations among prominent universities, national meteorological agencies, and WMO Regional Meteorological Training Centers throughout North, Central, and South America. This talk is intended to inform members of the European Geophysical Union about the exciting possibilities of participating in the growing global **IDD** data sharing efforts.