

DATA RESCUE – NOAA/USA

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Africa Upper-Air Data Rescue Project – Summary

NOAA has invited seven African countries to participate in a demonstration project that seeks to preserve and make electronically available, all their historical, current and future upper-air hydrometeorological data. These historical and current pilot balloon and rawinsonde observations taken over Africa are the only existing records of directly measured observations above the surface over Africa critical for research and operations in climate detection and prediction. These data sets are currently inaccessible and subsets are in a state of extreme vulnerability and in danger of being lost. The NWS will provide for the scanning of all available paper-based upper-air observational records; the digitization of these data into ASCII files; the combining of these newly digitized data with other existing electronic data sets to provide one database with all existing upper-air data for those seven African countries. Additionally, the Project will provide scanning and digitizing equipment and training to these seven African countries so that current and future data originally recorded on paper can be saved on CD-ROMs and added to the new database for use by the world hydrometeorological community. Project completion expected December 2002.

The goal of this demonstration project is to provide the world community with a process to rescue hydrometeorological observations from developing countries and to provide those data in a secure media and an easy-to-use format. This initial effort involves the following countries: Angola, Kenya, Malawi, Mozambique, Niger, Senegal, and Zambia.

The project activities in supporting the overall goal include the following: The rescue of historical upper-air hydrometeorological data by copying vulnerable records onto a less vulnerable media; the digitization of the rescued data to maximize its usefulness; provision of equipment, software, and training to enable national hydrometeorological services to continue providing digitized upper-air data to the world community; provision of a complete set of all available upper-air hydrometeorological data from those seven African countries and a process to ensure the accuracy and currency of those data; and finally, the provision of a basis for an expansion of the process to include other developing countries as well as other data sets (i.e., surface hydrometeorological data).

The project has five basic steps in the process:

- (1) Inventory available data and compilation of all available upper-air hydrometeorological observational data;
- (2) Provide for scanning and digitization of all available original upper-air data;
- (3) Provide the capability in each project country to scan and digitize current and future observations;
- (4) Set up procedures for data quality control, updating the comprehensive data sets and distribution of data sets;
- (5) Assist countries in ensuring the digitization and quality control programs continue.