



CGMS-39 NOAA-WP-29
Prepared by [organisation]
Agenda Item: IV/1
Discussed in WG IV

**PROGRESS IN PRESERVATION OF CLIMATE OBSERVATIONS
AND PRODUCTS IN NOAA**

In response to CGMS action 38.50

Action/Recommendation proposed: None.



PROGRESS IN PRESERVATION OF CLIMATE OBSERVATIONS AND PRODUCTS IN NOAA

1 INTRODUCTION

The National Climatic Data Center (NCDC) is the world's largest active archive of weather data with more than 2.5 petabytes of archived data. Our mission is to provide access and stewardship to the Nation's resource of global climate and weather related data and information, and assess and monitor climate variation and change. This effort requires the acquisition, quality control, processing, summarization, dissemination, and preservation of a vast array of climatological data generated by the national and international meteorological services. NCDC's mission is global in nature and provides the U.S. climate representative to the World Meteorological Organization, the World Data Center System, and other international scientific programs.

2 PROGRESS IN DATA PRESERVATION

The NCDC archive has implemented NOAA's Administrative Order "Procedure for Scientific Records Appraisal and Archive Approval" and incorporated industry established best practices such as Open Archival Information System Reference Model and lessons learned to improve data preservation and documentation. These initiatives were the building blocks used to create processes, documentation standards and templates to ensure secure data preservation supporting long-term data use and accessibility.

NCDC established an archive process that engages cross-center collaboration to ensure support for data ingest, documentation, preservation, access and customer service thereby ensuring complete support of the data and information. Several documents were recently developed to establish roles and responsibilities between the Data Provider and the Archive through Service Level Agreements, as well as detailed data transfer protocols, formats and access support in Submission Agreements. Metadata standards currently required by NOAA are Federal Geographic Data Committee (FGDC) with the goal of moving to International Organization for Standardization (ISO) 19115/19115-2 in the near future. NCDC plans to implement ISO compliant collection level metadata within the year to better enable data discovery and improve documentation.

Additional activities at NCDC are improving the ingest and archive process by incorporating file verification throughout the process and reconciliation of transferred data with the provider. These activities are planned to be operational in the coming year.

3 CONCLUSIONS

NCDC is the world's largest active archive of weather and climate related data with a mission to preserve and provide access to these national resources. Recent improvements in data preservation at NCDC have occurred through implementing organizational requirements, industry best practices, internationally endorsed metadata standards and lessons learned.