

CHAPTER 4

OBSERVATIONAL RECORDS

4.1 General

All meteorological data collected as part of the surface weather observation program are valuable information. Consequently, these data require retention, storage, and archival.

4.2 Scope

This chapter prescribes the minimum standards for maintaining a record of the operational status of weather reporting stations and maintaining records of surface weather reports. Because of the lasting value of all the data collected in the surface weather reporting program, agencies are encouraged to devise methods to store as much of the data as possible within their physical and financial constraints. Because of the generally common interest in historical and archived data, agencies shall provide records to the National Climatic Data Center (NCDC).

4.3 Types of Records

4.3.1 Station Information File. Each agency shall establish a Station Information File for each station under their jurisdiction. The file shall be a record of characteristics of each station. Table 4-1 presents a list of data required from most stations. Copies of all Station Information Files shall be available upon request from the responsible agency when needed to interpret weather records from a particular station.

Table 4-1. Content of Station Information File

| | | |
|-----------------------------------|--------------------------|----------------------------|
| Physical Characteristics | | |
| Station Name | Latitude/Longitude | Type of Station |
| Airport Name | Climatological Elevation | Description of |
| Station Identifier | Field Elevation | Significant |
| WMO Index Number | Ground Elevation | Topography |
| Time Zone | Station Elevation | |
| Observation Schedule | | |
| Types of Reports | Schedule for Reports | Hours of Operation |
| Observation Program | | |
| Elements Observed | SPECI | |
| Long-Line Communications Circuits | Transmitted (Y/N) | |
| Sensor Data | | |
| System Configuration | Location of Sensors | Non-standard sensor siting |
| Types of Sensors | | |

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- a. **Maintenance of Station Information File.** The Station Information File should be created on or before the date of station establishment to ensure the timely notification of the station's existence. The file shall be updated when any data in Table 4-1 or in the file changes, or the station closes, noting the date when each change is implemented. Corrections to erroneous station information shall be noted as such, along with the historical extent of the error. Agencies shall establish procedures to ensure the validity of their stations' Station Information Files. It is recommended that the content of the most recent file be reviewed as part of each station inspection.
 - b. **Station Information File at NCDC.** A copy of the Station Information File for each observing location shall be sent to the agency group representatives (NOAA, U.S. Navy, and U.S. Air Force) at the Federal Climate Complex, Asheville, North Carolina, and made available to the DOC/NOAA/NCDC. A copy of the file shall be sent when a station is established, when any data listed in Table 4-1 or in the file changes or is corrected, and when a station closes. This file shall become a part of that station's archived record.

4.3.2 Retention of Station Observational Records. Station observational records include regularly observed meteorological data from manual stations and automated systems. Each agency shall define procedures for retaining all observational records in accordance with agency data retention and archival schedules under general METAR/SPECI guidelines:

- a. **Short-term Storage.** Storage of observational records for 4 or more days is required to assist in sensor/system maintenance, and verification of sensor/system records in the event of an aircraft mishap.
- b. **Long-term Retention.** Each agency shall establish procedures to provide long-term retention of all observational records for 5 years to satisfy requirements for local studies and to support litigation.
- c. **Archive.** The DOC/NOAA/NCDC is responsible for archiving observational records, as necessary, to satisfy requirements to monitor the Nation's climate. Agencies shall include procedures to ensure the delivery of observational records to the agency group representatives (NOAA, U.S. Navy, and U.S. Air Force) at the Federal Climate Complex.

4.3.3 Station System/Sensor/Configuration Records. Each agency shall maintain information about changes in the configuration of each station's systems/sensors, and in their operational status. This information may be collected as part of the Station Information File or the Station Observational Records and, as such, maintained, retained, and archived as outlined in the preceding Sections.