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**Catalog of
the Oak Ridge
National Laboratory
Meteorological Tape Library**

M. A. Bell

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DEPARTMENT OF ENERGY

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National Technical Information Service
U.S. Department of Commerce
5285 Port Royal Road, Springfield, Virginia 22161
NTIS price codes—Printed Copy: A04; Microfiche A01

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CATALOG OF
THE OAK RIDGE NATIONAL LABORATORY
METEOROLOGICAL TAPE LIBRARY

M. A. Bell

Sponsored by
Applied Physical Sciences Group
Energy Division

Date Published - August 1983

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Union Carbide Corporation, Nuclear Division
operating the
Oak Ridge Gaseous Diffusion Plant Oak Ridge National Laboratory
Oak Ridge Y-12 Plant Paducah Gaseous Diffusion Plant
under Contract No. W-7405-eng-26
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ABSTRACT

This report gives a complete inventory of the data tapes in the ORNL Meteorological Tape Library (OMTL). The attributes of each tape, including location of the weather station (city and state), station number, standard data format, dates covered, data set name(s), and job control language considerations (record format, record length, blocksize, tape label, and tape density), are listed for each tape. In addition, a description of some of the special characteristics of each of the available standard meteorological data formats is presented.

I. INTRODUCTION

This report contains an inventory of the tapes in the ORNL Meteorological Tape Library (OMTL), as well as brief discussions of the various available formats. Emphasis has been placed upon the programming considerations necessary to properly access and decode these data. These discussions also reflect the author's experiences with problems one may encounter when using meteorological tapes. These discussions are not intended to replace corresponding documentation (i.e., User's Manuals), but rather to supplement them, particularly with local computer center-dependent information. The catalog of meteorological tapes in OMTL has been completely revised and expanded. This report completely supersedes the previous OMTL catalog description, entitled "Weather Bureau Tapes" issued by E. C. Long on July 29, 1980. This report does not deal with tapes formatted for use with the MIUS (Modular Integrated Utility System) or NBSLD (National Bureau of Standards Load Determination) programs. No change will be made in the status of these tapes, though neither shall they be maintained by OMTL. Users who need weather data in special formats, such as joint-frequency (STAR) data or "packed" data used by the DOE Loads Simulation Program, may contact the OMTL librarian for information on standard meteorological data that may be converted to these special forms.

Persons with new meteorological data tapes are encouraged to make these data available to ORNL users through OMTL. Please contact the OMTL librarian, M. A. Bell, (615) 574-7091, for more information.

All of the manuals referenced in this report are available from the National Climatic Data Center (NCDC, a branch of NOAA), Federal Building, Asheville, North Carolina 28801. (The NCDC is also the source of new master copies of meteorological data.) OMTL also has some of these manuals.

The author would like to express appreciation to those who have rendered valuable assistance. R. D. Sharp gave several suggestions for improving job efficiency when using tapes. A. L. Sjoreen lent keen insights on other aspects of tape usage. C. J. Emerson rendered assistance in formulating JCL for using magnetic tapes at ORNL. G. H. Llewellyn gave support and advice in processing TRY and TMY weather data for use with the DOE Building Energy Loads Simulation Package, an effort which preceded the reorganization of the ORNL Meteorological Tape Library. S. Y. Ohr also gave helpful advice on using the DOE Weather Data Processor. R. J. Raridon provided a great deal of information on standard format meteorological data in general. Finally, E. C. Long laid the foundation for the OMTL reorganization effort. Without his advice and support, the task would have been much more difficult.

The research for this project was funded by the Applied Physical Sciences Group, Energy Division of Union Carbide Corporation-Nuclear Division, under Contract No. W-7405-eng-26 for the Department of Energy.

II. RETIREMENT OF OLD METEOROLOGICAL TAPES

NOTICE:

Users of 800 bpi and 1600 bpi nonlabeled X-10 Computing Center magnetic tapes ("X-tapes") with meteorological data in the 1440, CD144, TRY, TMY, SOLMET and Mixing Height standard formats are advised that these tapes (or at least most of them) will be retired effective June 1, 1983, in favor of new copies of these data sets on higher density 6250 bpi IBM standard-labeled tapes. For more information, contact M. A. Bell at 4-7091.

III. LIST OF AVAILABLE TAPE FORMATS WITH ALIASES

FORMAT	ALIASES
"1440":	Tape Deck 1440 (TD-1440), Tape Data Family 14 (TDF-14) Note: TDF-14 is actually a large group of similar but different tape formats, of which 1440 is the most used.
"CD144":	Card Deck 144, CI144, 144
"TRY":	Test Reference Year, TD-9706
"SOLMET":	Solar Hourly Meteorological data, TD-9724
"MIXING":	Mixing Height data, TD-9689
"DAYPRE":	Daily Precipitation data, TD-9655
"HYPRE":	Hourly Precipitation data, TD-9657
"SOUND":	Upper Air Soundings, TD-5600, TDF-56

IV. SERVICES OF THE OMTL

In support of atmospheric research activities, the Applied Physical Sciences Group of the Energy Division maintains a library of master copies of standard-format meteorological data tapes at Bldg. 2001. This library shall be referred to as the ORNL Meteorological Tape Library (OMTL). Most of the master tapes in this library have been copied onto high-density standard-labeled magnetic tapes in the X-10 Computing Center tape library so that any user may have access to these data, regardless of work location or schedule. These X-tape copies may be accessed by computer users through appropriate job control language (JCL). All of these tapes may be said to be supported by the ORNL Meteorological Tape Library in that OMTL will make a reasonable effort to identify abnormalities in these tapes that would cause run-time errors if the tapes were read using standard software or utilities (e.g., FORTRAN or IEBGENER). OMTL will also make an effort to identify on which X-tape copies of the master meteorological tapes the data are incomplete or missing, or in the case of 1440, CD144, and SOLMET formats, in which months the weather observations occur in three-hour intervals. No guarantee of the accuracy or completeness of the data is given or implied. These data are made available to X-10 IBM users solely as a service to X-10, K-25, and Y-12. (Users with non-IBM facilities may make special arrangements to have meteorological data copied onto compatible storage media. Contact OMTL for more information.) No X-tape copies of meteorological data may be removed from the X-10 Computing Center without prior approval of OMTL. Meteorological data users must use the high-density, standard-labeled X-tape copies of the available data; master tapes will not be loaned to users unless X-tape copies of the data are not available. Exceptions to this must be arranged with OMTL.

For the first time ever, complete up-to-the minute lists of available meteorological tapes can be accessed by ORNL PDP-10 users through the 1022 data base management system. Users can now obtain information on all meteorological X-tapes, and most master tapes, at their terminals. Two such data bases are available - one for X-tapes and the other for master tapes. No special knowledge of 1022 is needed to use these data bases - complete instructions and examples are given in the appendices to this report.

Anyone who has questions about the ORNL Meteorological Tape Library or who is interested in using data tapes from the library may contact the OMTL librarian, M. A. Bell, B212, 4500N, 4-7091.

V. FORMAT CD144

CD144 is the oldest standard format still in current use. (Some of our latest and most complete data tapes are in CD144 format.) Each CD144 tape typically consists of several years of surface weather observations for one locale. Occasionally, two data for two or more locales will be recorded on the same tape but in different files (as the case of two different airports near the same city - see "Programming Considerations" in this section). Values are generally in British units. Time of observation is given in Local Standard Time (LST). Missing data are generally denoted by blanks in the appropriate field. All observations are recorded hourly on "logical records" that are 80 characters long (the size of a standard punch card). See "WBAN Hourly Surface Observations 144 Reference Manual" for more information. Users should be aware that many tapes, especially from 1965 onward, contain intervals where surface observations were recorded in three-hour intervals instead of one-hour intervals. Where this happens, no space is set aside on the tape for the missing observations (i.e., there are no blank "dummy records" in CD144 as in 1440 format); instead of 24 logical records per day there are only eight hourly observation records, spaced three hours apart. Programs that expect hourly meteorological data input must be modified for this condition, or the user must preprocess the data to provide values for hours without observations.

Programming Considerations.

Unless explicitly stated otherwise, all CD144 tapes are 9-track and written in EBCDIC. Each logical record contains weather values for one hour.

Master tapes . CD144 master tapes are generally nonlabeled and come in 800 bpi, 1600 bpi, and 6250 bpi densities. Logical record length is 80 bytes and blocksize is 800 bytes (10 records).

X-tapes . CD144 X-tape copies are IBM standard-labeled with density of 6250 bpi. Logical record length is 80 bytes and blocksize is 8000 bytes (100 records). Those users who have a choice between CD144 and 1440 formats (as in the case where new data tapes are being ordered from the National Climatic Data Center) may wish to take note that, from a purely programming point of view, CD144 is less cumbersome and confusing to use than 1440.

VI. FORMAT 1440

The most widely available standard format at ORNL is 1440. Each 1440 tape typically consists of several years of surface weather observations for one locale. Occasionally, the data for two or more locales will be recorded on the same tape but in different files (as the case of two different airports near the same city - see "Programming Considerations" in this section). Values are generally in British units. Time of observation is given in Local Standard Time (LST). Missing data are generally denoted by blanks in the appropriate field. All observations are recorded hourly on "logical records" that are 495 characters long, each containing data for six hours. See "Airways Surface Observations Tape Deck 1440 User's Manual" for more information. Users should be aware that many tapes, especially from 1965 onward, contain intervals where surface observations were recorded in three-hour intervals instead of one-hour intervals. Where this happens, space is always set aside on the tape for the missing observations and the corresponding space on the record where data values are not available is blank. Thus in every "normal" 1440 data set there are always four logical records for each full day of weather observation. (This is in contrast to the other major nonsolar actual-value format, CD144.) Programs that expect input of real meteorological data taken at hourly intervals must be modified for this condition, or the user must preprocess the data to provide values for hours without observations.

Programming Considerations.

Unless explicitly stated otherwise, all 1440 tapes are 9-track and written in EBCDIC. Each logical record contains 495 bytes, broken up into 15 bytes of station and date identification, followed by six 80-byte hourly meteorological data segments, for a total of six hours of meteorological data per record. As noted above, an hourly meteorological segment for which no data are available will be totally blank except for the hour field.

Master tapes . 1440 master tapes are generally nonlabeled and come in 800 bpi, 1600 bpi, and 6250 bpi densities. Logical record length is 495 bytes and blocksize is either 495 bytes (one logical record; "1440" in the tape list) or 1980 bytes (four logical records or one day; "1440DA" for 1440-day in the tape list).

X-tapes . 1440 X-tape copies are IBM standard-labeled with density 6250 bpi. Logical record length is 495 bytes and blocksize is either 495 bytes (one logical record; "1440" in the tape list) or 1980 bytes (four logical records or one day; "1440DA" for 1440-day in the tape list). Those users who have a choice between CD144 and 1440 formats (as in the case where new data tapes are being ordered from the National Climatic Data Center) may wish to take note that from a purely programming point of view, CD144 is less cumbersome and confusing to use than 1440. Because of the "unique" nature of the 1440 format, the author made no changes in the blocksize of the X-tape copies from that of their master tape forebearers. This was in hope that current users should only have to make minimal changes to their JCL to use the new tape copies. In the future, a 1440-standard blocksize for all X-tapes may be adopted (say, of 3960 bytes or two days). Users will be informed well in advance of any such change. Because the existing 1440 blocksizes are so small, users who intend to make extensive or repeated use of 1440 data are recommended to log out their own magnetic tape and copy the data at a higher blocksize (e.g., 3960 bytes or 7920 bytes). Such a move could provide substantial savings in job costs and turnaround time due to reduced I/O. For users with access to adequate disk or mass storage space, an even better method to improve job efficiency would be to copy the data to disk or mass storage. This would yield significant reductions not only in I/O but also in system response time.

VII. FORMAT SOLMET

SOLMET is a relatively new standard format, being introduced in 1977. Like CD144 and 1440, each SOLMET tape typically consists of several years of surface weather observations for one locale. SOLMET features several forms of solar radiation measurements whenever such data are available. (One of the major reasons for the establishment of the SOLMET format was the need for a standard format with space allocated for solar radiation values.) Such solar data should be available in the future for many locales, but for the present these data are available only for a few cities and only for relatively recent times. For purposes of obtaining solar radiation values, SOLMET must be considered a "format of the future" for most locales. The other parameters on SOLMET roughly correspond to those on 1440 and CD144 tapes. Because SOLMET is relatively new, its developers have been able to eliminate some of the undesirable format features of the older formats: overpunches are not used; missing data are denoted by "9"s instead of blanks; recording practices and systems of units used to measure meteorological parameters are more consistent. Finally, SOLMET brings together in a single source most of the principal meteorological parameters in addition to the solar radiation values. All data are presented in the International System of Units (SI, or commonly "metric"). Time of observation is given in "true solar time" and Local Standard Time (LST). The data are recorded at hourly intervals for all stations prior to 1965 and in three-hour intervals for most stations after 1964. Each observation is recorded on a "logical record" that is 163 characters long. Meteorological parameter values in SOLMET come from earlier 1440 tapes, while solar values have primarily been derived from Card Deck 280, developed 25 years ago and available from the National Climatic Data Center (NCDC). See "SOLMET Volume I - User's Manual (TD-9724)" for more information.

Programming Considerations.

Unless explicitly stated otherwise, all SOLMET tapes are 9-track and written in EBCDIC. Each logical record contains weather values (and solar radiation, if known) for one hour.

Master tapes . SOLMET master tapes are generally nonlabeled with density of 1600 bpi. Logical record length is 163 bytes and blocksize is 3912 bytes (24 records).

X-tapes . SOLMET X-tape copies are IBM standard-labeled with density 6250 bpi. Logical record length is 163 bytes and blocksize is 3912 bytes (24 records).

VIII. FORMAT TRY

TRY (Test Reference Year) is a representative format designed to reflect mean long-term climatic conditions at a given location. The data for any location consist of one actual continuous year of surface weather observations - this is the "test reference year" for that location. The principle of selection is to eliminate years with extremely high or low mean temperatures until only one year remains. The period of examination is 1948 (1949 for Portland, Oregon) through 1975. This format was primarily developed by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE). The weather values in the test year comprise a local standard for comparisons or for benchmark studies of the performance of heating and cooling systems. These values are not considered sufficiently typical to yield reliable estimates of average energy requirements over several years. Users conducting other kinds of studies are advised to consider the TRY selection procedure before deciding to use TRY, for TRY data may not be appropriate for some applications.

TRY data are available for 60 U.S. Cities. These data are on three tapes, 20 cities per tape. Thus, instead of recording several years' data for one location on each tape, as is the case for 1440, CD144, and SOLMET data, each TRY tape contains one year's data for several (20) locations. Each TRY tape has one file holding the twenty cities' data. The records for one particular city may be identified by the station number (see "Programming Considerations" in this section). Weather values are generally in British units. Time of observation is given in Local Standard Time (LST). Missing data are denoted by "9"s in the appropriate field. All observations are recorded hourly on "logical records" that are 80 characters long (the size of a standard punch card). See "Tape Reference Manual - Test Reference Year (TRY)" for more information.

Programming Considerations.

Unless explicitly stated otherwise, all TRY tapes are 9-track and written in EBCDIC. Each logical record contains weather values for one hour. Each tape contains only one data file - there is no separation of each city's data on separate data files as in some of the other standard formats.

Master tapes . TRY master tapes are nonlabeled with density 800 bpi. Logical record length is 80 bytes and blocksize is 1920 bytes (24 records or one day).

X-tapes . TRY X-tape copies are IBM standard-labeled with density of 6250 bpi. Logical record length is 80 bytes and blocksize is 7680 bytes (96 records or four days).

IX. FORMAT TMY

TMY (Typical Meteorological Year) is a representative format designed to reflect mean long-term climatic conditions at a given location and time. The data for any location consist mostly of SOLMET data for specific calendar months (year and month) that were selected from the entire period of record for a given station as the most representative, or "typical", for that station and month. Since the "typical months" were chosen from different calendar years, a cubic spline function smooths the discontinuity by covering six hourly points on either side of the interface. These 12 Typical Meteorological Months make up the Typical Meteorological Year. (See the SOLMET User's Manual for more information.)

TMY data are available for 234 U.S. cities. The data are on nine tapes, each tape containing data for a continuous region of the U.S. referred to as a "TMY region". The nine TMY regions are: 1) Northeast, 2) Southeast, 3) Lower Mississippi Valley, 4) Great Lakes, 5) Upper Mississippi Valley, 6) Texas and New Mexico, 7) Rockies and Desert Southwest, 8) Pacific Coast, 9) Alaska, Hawaii, and islands.

Thus, instead of recording several years' data for one location on each tape, as is the case for 1440, CD144, and SOLMET data, each TMY tape contains one year's data for several locations. Each TMY tape has one file holding the regional cities' data. The records for one particular city may be identified by the station number (see "Programming Considerations" in this section). Weather values are in International System (SI) units. Time of observation is given in solar time and local Standard Time (LST). Missing data are denoted by "9"s in the appropriate field. All observations are recorded hourly on "logical records" that are 132 characters long, the length of one line on a standard line printer. See "Typical Meteorological Year (TMY) User's Manual" for more information.

Programming Considerations.

Unless explicitly stated otherwise, all TMY tapes are 9-track and written in EBCDIC. Each logical record contains weather values for one hour. Each tape contains only one data file - there is no separation of each city's data on separate data files as in some of the other standard formats.

Master tapes . TMY master tapes are nonlabeled with density 1600 bpi. Logical record length is 132 bytes and blocksize is 3168 bytes (24 records or one day).

X-tapes . TMY X-tape copies are IBM standard-labeled with density of 1600 bpi. Logical record length is 132 bytes and blocksize is 3168 bytes (24 records or one day).

X. MIXING HEIGHTS

The Mixing Height standard format, TD-9689, has no formal documentation. For the convenience of users, a brief format field description (the only one known) is given just before the "Programming Considerations" portion of this section. Mixing height data are used in many specific applications, but most of these are rooted in the link between mixing height and atmospheric stability. For example, several atmospheric dispersion models use mixing height values to determine degrees of turbulence and "plume trapping" (e.g., see the "CRSTER Single-Source User's Manual"). Each locale's mixing height data set is organized into records that are 34 characters long. Each record contains daily information, comprised of mixing height and other measurements for the morning and the afternoon. Contact the OMTL librarian, 4-7091, for more information.

MIXING HEIGHT DATA (TD-9689)

Tape Position	Item
1-5	Station number
6-9	Year, Month
10	Season: 1 = Dec, Jan, Feb 2 = Mar, Apr, May 3 = Jun, Jul, Aug 4 = Sep, Oct, Nov
11-12	Day
13-23	Morning data:
13	Type: 1960-1964: Blank, C or P 1965-present: 1 = No Precip 2 = Precip 3 = Cold Advection 4 = Missing
14-17	Mixing depth (meters)
18-20	Average wind speed through mixing depth
21-23	Average surface wind speed
24-34	Afternoon data:
24	Type: 1960-1964: Blank, C or P 1965-present: 1 = No Precip 2 = Precip 3 = Cold Advection 4 = Missing
25-28	Mixing depth (meters)
29-31	Average wind speed through mixing depth
32-34	Average surface wind speed

Wind speeds are in meters per second to tenths.

Programming Considerations.

Unless explicitly stated otherwise, all mixing height tapes are 9-track and written in EBCDIC. Each logical record contains mixing height values for one day.

Master tapes . Mixing height master tapes are generally nonlabeled and come in 800 bpi, 1600 bpi (most common), and 6250 bpi densities. Logical record length is 34 bytes and blocksize is 340 bytes (10 records).

X-tapes . For the present, the contents of all mixing height master tapes shall be copied into separate files on one X-tape: X16335. This tape is IBM standard-labeled with density of 6250 bpi. Logical record length is 34 bytes and blocksize is 3400 bytes (100 records).

XI. DAILY PRECIPITATION

The Daily Precipitation standard format, TD-9655, has no formal documentation. For the convenience of users, a brief format field description is given just before the "Programming Considerations" portion of this section. The daily precipitation data format was formulated by the Office of Hydrology. Each locale's daily precipitation data set is organized into records that are 960 characters long. Each record contains information for one month. Weather values are generally given in British units. Missing data are generally denoted by "9"s in the appropriate field. For more detailed information, contact the OMTL librarian, phone 4-7091.

DAILY PRECIPITATION DATA (TD-9655)

Tape Position	Item
1- 2	State Index #
3- 6	Station Index
7- 8	Year
9- 10	Month
11-134	Precipitation (31 daily values in inches)
135-227	Max Temperature (31 daily values in degrees F)
228-320	Min Temperature (31 daily values in degrees F)
321-413	Temperature at Obs. time (31 daily values in degrees F)
414-475	Snowfall (31 daily values in inches)
476-568	Snow depth on ground (31 daily values in inches)
569-661	Water equivalent of snow on ground (31 values in inches)
662-785	Wind movement (31 daily values in miles)
786-878	Evaporation (31 daily values in inches)
879-909	Estimated Precipitation (31 daily values)
910-940	Thunder (31 daily values)
941-960	Blank

Programming Considerations.

Unless explicitly stated otherwise, all daily precipitation tapes are 9-track and written in EBCDIC. Each logical record contains daily weather values for one month.

Master tapes . Daily precipitation master tapes are generally nonlabeled with density of 800 bpi. Logical record length is 960 bytes and blocksize is 960 bytes (one record).

X-tapes . Daily precipitation X-tapes are currently not available. Persons wishing to use TD-9655 tapes may make arrangements with the OMTL librarian, 4-7091.

XII. HOURLY PRECIPITATION

The Hourly Precipitation standard format, TD-9657, has little formal documentation. For the convenience of users, a brief format field description is given just before the "Programming Considerations" portion of this section. Each locale's hourly precipitation data set is organized into records that are 80 characters long. Each record contains information for twelve hours. Precipitation values are given in inches and hundredths of inches. Missing data are generally denoted by "B"s in the appropriate field; trace or no precipitation is denoted by an "X" followed by "B"s in the appropriate field. The coding practices for this format are very complicated, especially for data prior to October 1951. Users should be aware of this. For more detailed information, consult the "USWB Hourly Precipitation TD-9657 Deck 488 Reference Manual" or call the OMTL librarian.

HOURLY PRECIPITATION DATA (TD-9657)

Tape Position	Item
1-2	State Number
3-6	Climatological Station Number
7-8	Year
9-10	Month
11-12	Day of Month
13	Card Number (1 or 2)
14-49	Hourly Precipitation. Each day's data consist of 2 logical records, the first for hours 1 through 12, the second for hours 12 through 24. Each hourly field is made up of 3 columns: whole inches, tenths, and hundredths of inches. "X" overpunch in inch column equals 10 inches; 12 overpunch in inch column equals 20 inches. Amounts above the overpunch values are punched in the normal manner.

HOURLY PRECIPITATION DATA (TD-9657) (cont.)

	Card #1 Hr Ending LST	Card #2 Hr Ending LST
14-16	01	13
17-19	02	14
20-22	03	15
23-25	04	16
26-28	05	17
29-31	06	18
32-34	07	19
35-37	08	20
38-40	09	21
41-43	10	22
44-46	11	23
47-49	12	24
50-53	blank	Daily Total
54-57	blank	Monthly Total
58-78	blank	blank
79-80	blank	Next Day w/Precip

Programming Considerations.

Unless explicitly stated otherwise, all hourly precipitation tapes are 9-track and written in EBCDIC. Each logical record contains hourly precipitation values for 12 hours. Coding practices for this format are complicated and confusing, especially for data prior to October 1951, when these practices were changed sharply. Overpunches are used extensively, so programmers must use care in specifying formats and preprocessing instructions in order to correctly decode the data.

Master tapes . Daily precipitation master tapes are generally nonlabeled with density of 800 bpi.

Logical record length is 80 bytes and blocksize is 800 bytes (10 records).

X-tapes . Hourly precipitation X-tapes are currently not available. Persons wishing to use TD-9657 tapes may make arrangements with the OMTL librarian, 4-7091.

XIII. UPPER AIR SOUNDINGS

The Upper Air Soundings standard format, TD-5600, has no formal documentation. For the convenience of users, a brief format field description is given just before the "Programming Considerations" portion of this section. Each locale's daily upper air sounding data set is organized into records that are 2000 characters long. Each record contains information for one hour and up to 79 levels in the atmosphere, including the surface. Meteorological values are generally given in metric-type units. Missing data are generally denoted by "9"s in the appropriate field. For more detailed information, contact the OMTL librarian, 4-7091.

UPPER AIR SOUNDING DATA (TD-5600)

Tape Position	Item
1-2	"56" - for Tape Data Family 56
3-4	Tape Date
5-9	Station Number
10-11	Year
12-13	Month
14-15	Day
16-17	Hour
18-19	Number of Levels
20-25	blank
26-50	Surface Conditions (1st level):
26-30	Pressure (millibars to tenths)
31-35	Height (geopotential meters)
36-38	Temperature (degrees Celsius to tenths)
39-41	Relative Humidity (percent)
42-44	Wind Direction (whole degrees)
45-47	Wind Speed (meters per second)
48	Height Data Indicator
	blank - height reported in source data
	"1" - height was computed
	"2" - converted data
49	Temperature Data Indicator
	(cf. Height Indicator above)
50	blank
51-75	2nd Level Conditions (as above)
76-2000	3rd through up to 79th Levels (as above)

Programming Considerations.

Unless explicitly stated otherwise, all upper air sounding tapes are 9-track and written in EBCDIC. Each logical record contains meteorological values for one hour and up to 79 atmospheric levels, including the surface.

Master tapes . Upper air sounding master tapes are generally nonlabeled with density of 800 bpi. Logical record length is 2000 bytes and blocksize is 2000 bytes (1 record).

X-tapes . Upper air sounding X-tapes are currently not available. Persons wishing to use TD-5600 tapes may make arrangements with the OMTL librarian, 4-7091.

XIV. OMTL X-TAPE LIST

Description of the entries under each heading in the X-tape list:

Site and Data Considerations.

- "CITY" - City at or near the weather station
- "ST" - State
- "VOLSER" - Volume serial number of high-density standard-labeled X-tape
- "F#" - File number on the X-tape
- "FORMAT" - Weather data format
- "Dates" - Dates covered by the X-tape data
- "STAT#" - Station number
- "WARN" - Abnormalities in the data on the X-tape?
 - "YES" - Data contains abnormalities, possibly including but not restricted to three-hour observation intervals.
 - "3HR" - Data contains three-hour observation intervals but is otherwise normal.
 - "UNCH" - X-tape unchecked for missing observations.

X-tape JCL Considerations.

- "RECFM" - Record format (almost invariably "FB" for fixed block)
- "LRECL" - Logical record length (bytes)
- "BLKSIZE" - Blocksize (bytes)
- "DEN" - Tape density (bits per inch)
- "LABEL" - Label
 - "SL"- IBM standard-labeled
 - "NL"- nonlabeled
- "DSN" - Data set name (i.e., filename)

HIGH-DENSITY SL X-TAPE LIST - LAST REVISED 3/18/83

CITY	ST	VOLSER	F#	FORMAT	DATES	STAT#	WAFN	RECFM	LRECL	BLKSIZE	DEN	LABEL	DSN
1 NORTHEAST		X20860	1	TMY	-----			FB	132	3168	1600	SL	X.S.ECL14691.TMY1
2 SOUTHEAST		X20867	1	TMY	-----			FB	132	3168	1600	SL	X.S.ECL14691.TMY2
3 LOW MISS VAL		X20893	1	TMY	-----			FB	132	3168	1600	SL	X.S.ECL14691.TMY3
4 GREAT LAKES		X20868	1	TMY	-----		YES	FB	132	3168	1600	SL	X.S.ECL14691.TMY4
5 UP MISS VAL		X20892	1	TMY	-----		YES	FB	132	3168	1600	SL	X.S.ECL14691.TMY5
6 TX & NM		X20894	1	TMY	-----			FB	132	3168	1600	SL	X.S.ECL14691.TMY6
7 ROCKIES & SW		X08762	1	TMY	-----			FB	132	3168	1600	SL	X.S.ECL14691.TMY7
8 PACIFIC CCAST		X16580	1	TMY	-----			FB	132	3168	1600	SL	X.S.ECL14691.TMY8
9 AK, HI & ISLES		X08415	1	TMY	-----			FB	132	3168	1600	SL	X.S.ECL14691.TMY9
TRY TAPE 1		X22585	1	TRY	SN: 03927 - 13897			FB	80	7680	6250	SL	X.S.ECL14691.TRY1
TRY TAPE 2		X07578	1	TRY	SN: 13967 - 23047			FB	80	7680	6250	SL	X.S.ECL14691.TRY2
TRY TAPE 3		X23119	1	TRY	SN: 23050 - 94847			FB	80	7680	6250	SL	X.S.ECL14691.TRY3
BIRMINGHAM	AL	X01793	1	CD144	1/70-12/81 13876	3HR		FB	80	8000	6250	SL	X.S.ECL14691.BIRMINGH.AL
HUNTSVILLE	AL	X14899	1	1440	1/65-12/74 08356			FB	495	495	6250	SL	X.S.ECL14691.HUNTSVIL.AL
BLYTHEVILLE	AR	X19573	1	1440	11/55-12/70 13814	YES		FB	495	495	6250	SL	X.S.ECL14691.BLYTHEVI.AR
LITTLE ROCK	AR	X14957	1	CD144	7/48-12/81 13963	YES		FB	80	8000	6250	SL	X.S.ECL14691.LITTLERO.AR
PHOENIX	AZ	X00723	1	1440	1/55-12/64 23183			FB	495	495	6250	SL	X.S.ECL14691.PHOENIX.AZ
PHOENIX	AZ	X00723	2	1440	1/69-12/74 23183			FB	495	495	6250	SL	X.S.ECL14691.PHOENIX.AZ
BLYTHE	CA	X04027	1	1440	11/48-12/54 23185			FB	495	495	6250	SL	X.S.ECL14691.BLYTHE.CA
FRESNO	CA	X15236	1	CD144	1/70-12/81 93193	YES		FB	80	8000	6250	SL	X.S.ECL14691.FRESNO.CA
OAKLAND	CA	X22287	1	CD144	1/60-12/64 23230			FB	80	8000	6250	SL	X.S.ECL14691.OAKLAND.CA
OAKLAND	CA	X16335	1	MIXING	1/60-12/64 23230	UNCH		FB	34	3400	6250	SL	X.S.ECL14691.OAKLAND.CA.F1
SAN DIEGO	CA	X15743	1	1440	1/55-12/64 23188			FB	495	495	6250	SL	X.S.ECL14691.SANDIEGO.CA
WASHINGTON	DC	X15759	1	1440	1/55-12/64 13743			FB	495	495	6250	SL	X.S.ECL14691.WASHINGT.DC
WASHINGTON	DC	X15759	2	1440	1/72-12/74 13743			FB	495	495	6250	SL	X.S.ECL14691.WASHINGT.DC
WASHINGTON	DC	X15759	3	1440	1/61-12/70 13705			FB	495	495	6250	SL	X.S.ECL14691.WASHINGT.DC
WASHINGTON	DC	X14813	1	SOLMET	1/52-12/75 93734	UNCH		FB	163	3912	6250	SL	X.S.ECL14691.WASHINGT.DC
WILMINGTON	DE	X05348	1	1440	1/62-12/71 13781			FB	495	495	6250	SL	X.S.ECL14691.WILMINGT.DE
MIAMI	FL	X04668	1	1440	1/55-12/64 12839			FB	495	495	6250	SL	X.S.ECL14691.MIAMI.FL
MIAMI	FL	X06767	1	1440	1/48-12/81 12839	YES		FB	495	1980	6250	SL	X.S.ECL14691.MIAMI.FL
ATHENS	GA	X20502	1	1440	9/55-12/76 13873	YES		FB	495	495	6250	SL	X.S.ECL14691.ATHENS.GA
ATHENS	GA	X16335	6	MIXING	1/74-12/78 13873	UNCH		FB	34	3400	6250	SL	X.S.ECL14691.ATHENS.GA.F6
ATLANTA	GA	X12389	1	1440	1/45-12/76 13874	YES		FB	495	495	6250	SL	X.S.ECL14691.ATLANTA.GA
ATLANTA	GA	X05751	1	1440	1/55-12/64 13874			FB	495	495	6250	SL	X.S.ECL14691.ATLANTA.GA
AUGUSTA	GA	X16497	1	1440	1/49-12/76 03820	YES		FB	495	495	6250	SL	X.S.ECL14691.AUGUSTA.GA
AUGUSTA	GA	X07514	1	CD144	1/74-12/78 03820			FB	80	8000	6250	SL	X.S.ECL14691.AUGUSTA.GA
MACON	GA	X21510	1	1440	12/48-12/76 03813			FB	495	495	6250	SL	X.S.ECL14691.MACON.CA
ROME	GA	X21219	1	1440	1/48-12/76 93801	YES		FB	495	495	6250	SL	X.S.ECL14691.ROME.CA
DES MOINES	IA	X11525	1	CD144	1/70-12/80 14933	3HR		FB	80	8000	6250	SL	X.S.ECL14691.DESMOINE.IA
CHICAGO	IL	X16756	1	1440	1/55-10/58 1481C			FB	495	495	6250	SL	X.S.ECL14691.CHICAGO.IL
CHICAGO	IL	X16756	2	1440	11/58-12/64 94846			FB	495	495	6250	SL	X.S.ECL14691.CHICAGO.IL
CHICAGO	IL	X16756	3	1440	1/65-12/74 1481C			FB	495	495	6250	SL	X.S.ECL14691.CHICAGO.IL
PEORIA	IL	X16335	10	MIXING	1/73-12/77 14842	YES		FB	34	3400	6250	SL	X.S.ECL14691.PEORIA.IL.F10
SALEM	IL	X16335	8	MIXING	1/72-12/72 03879	UNCH		FB	34	3400	6250	SL	X.S.ECL14691.SALEM.IL.F8
SALEM	IL	X16335	9	MIXING	1/75-12/75 03879	YES		FB	34	3400	6250	SL	X.S.ECL14691.SALEM.IL.F9
SPRINGFIELD	IL	X20232	1	CD144	1/73-12/77 93822	UNCH		FB	80	8000	6250	SL	X.S.ECL14691.SPRINGFI.IL
INDIANAPOLIS	IN	X05646	1	1440	1/55-12/64 9381C			FB	495	495	6250	SL	X.S.ECL14691.INDIANAP.IN
KANSAS CITY	KS	X20775	1	1440	1/55-12/64 1398E			FB	495	495	6250	SL	X.S.ECL14691.KANSASCI.KS
TOPEKA	KS	X08212	1	1440	1/48-12/73 1399E			FB	495	495	6250	SL	X.S.ECL14691.TOPEKA.KS
COVINGTON	KY	X20774	1	1440	1/65-12/74 93814			FB	495	495	6250	SL	X.S.ECL14691.COVINGTO.KY
FT CAMPBELL	KY	X06050	1	1440	1/60-12/70 1380E			FB	495	495	6250	SL	X.S.ECL14691.CAMPBELL.KY

OMTL X-TAPE LIST

HIGH-DENSITY SL X-TAPE LIST - LAST REVISED 3/18/83 (CONTINUED)													
CITY	ST	VOLSER	F#	FORMAT	DATES	STAT#	WARN	RECFM	LRECL	BLKSIZE	DEN	LABEL	DSN
LOUISVILLE	KY	X16769	1	1440	1/55-12/64	93821		FB	495	495	6250	SL	X.S.ECL14691.LOUISVIL.KY
ALEXANDRIA	LA	X18907	1	1440	4/52-12/70	13934	YES	FB	495	495	6250	SL	X.S.ECL14691.ALEXANDR.LA
ALEXANDRIA	LA	X18907	2	1440	2/60-12/73	13935		FB	495	495	6250	SL	X.S.ECL14691.ALEXANDR.LA
NEW ORLEANS	LA	X09913	1	1440	1/55-12/64	12916		FB	495	495	6250	SL	X.S.ECL14691.NORLEANS.LA
BOSTON	MA	X13828	1	1440EA	1/45-12/79	14739	YES	FB	495	1980	6250	SL	X.S.ECL14691.BOSTON.MA
CHICOPEE	MA	X10258	1	1440	1/58-12/67	14703		FB	495	495	6250	SL	X.S.ECL14691.CHICOPEE.MA
S WEYMOUTH	MA	X23908	1	1440EA	1/54-12/77	14790		FB	495	1980	6250	SL	X.S.ECL14691.WEYMOUTH.MA
BALTIMORE	MD	X09918	1	1440	1/55-12/64	93721		FB	495	495	6250	SL	X.S.ECL14691.BALTIMOR.MD
BANGOR	ME	X18705	1	1440EA	2/72-12/81	14606		FB	495	1980	6250	SL	X.S.ECL14691.BANGOR.ME
PORTLAND	ME	X16335	12	MIXING	1/70- 4/79	14764	UNCH	FB	34	3400	6250	SL	X.S.ECL14691.PORTLAND.ME.F12
FLINT	MI	X21046	1	1440	12/48-12/72	14826	YES	FB	495	495	6250	SL	X.S.ECL14691.FLINT.MI
FLINT	MI	X06128	1	CD144	1/70-12/74	14826	UNCH	FB	80	8000	6250	SL	X.S.ECL14691.FLINT.MI
FLINT	MI	X16335	5	MIXING	1/70-12/74	14826	UNCH	FB	34	3400	6250	SL	X.S.ECL14691.FLINT.MI.F5
SAGINAW	MI	X13599	1	1440	12/48-12/54	14845		FB	495	495	6250	SL	X.S.ECL14691.SAGINAW.MI
MINNEAPOLIS	MN	X19688	1	1440	1/49-12/58	14922		FB	495	495	6250	SL	X.S.ECL14691.MINNEAPO.MN
MINNEAPOLIS	MN	X12588	1	CD144	1/73-12/77	14922		FB	80	8000	6250	SL	X.S.ECL14691.MINNEAPO.MN
ST CLOUD	MN	X16355	11	MIXING	1/73-12/77	14926	UNCH	FB	34	3400	6250	SL	X.S.ECL14691.STCLOUD.MN.F11
ST LOUIS	MO	X23737	1	CD144	1/70-12/81	13994	YES	FB	80	8000	6250	SL	X.S.ECL14691.STLOUIS.MO
CHARLOTTE	NC	X09553	1	1440	1/55-12/64	13881		FB	495	495	6250	SL	X.S.ECL14691.CHARLOTT.NC
WINSTON-SALEM	NC	X18747	1	1440	1/55-12/64	93807		FB	495	495	6250	SL	X.S.ECL14691.WINSTON.NC
NORTH PLATTE	NE	X08412	1	CD144	1/75-12/79	24023		FB	80	8000	6250	SL	X.S.ECL14691.NPLATTE.NE
NORTH PLATTE	NE	X16335	13	MIXING	1/75-12/79	24023		FB	34	3400	6250	SL	X.S.ECL14691.NPLATTE.NE.F13
NORTH PLATTE	NE	X16335	3	MIXING	1/75-12/79	24023	YES	FB	34	3400	6250	SL	X.S.ECL14691.NPLATTE.NE.F3
OMAHA	NE	X20511	1	1440	1/65-12/74	14942		FB	495	495	6250	SL	X.S.ECL14691.OMAHA.NE
(WEST) LEBANON	NH	X03491	1	1440EA	1/49-12/58	14776		FB	495	1980	6250	SL	X.S.ECL14691.WLEBANON.NH
LEBANON	NH	X03491	2	1440EA	1/59-12/64	94765		FB	495	1980	6250	SL	X.S.ECL14691.LEBANON.NH
CONCORD	NH	X18161	1	1440EA	1/48-12/77	14745		FB	495	1980	6250	SL	X.S.ECL14691.CONCORD.NH
MANCHESTER	NH	X23316	1	1440EA	1/49- 6/68	14710		FB	495	1980	6250	SL	X.S.ECL14691.MANCHEST.NH
PORTSMOUTH	NH	X10356	1	1440EA	12/46- 8/52	94735	YES	FB	495	1980	6250	SL	X.S.ECL14691.PORTSMOU.NH
PORTSMOUTH	NH	X10356	2	1440EA	4/56-12/74	04743		FB	495	1980	6250	SL	X.S.ECL14691.PORTSMOU.NH
NEWARK	NJ	X23335	1	1440	1/77-12/77	14734		FB	495	495	6250	SL	X.S.ECL14691.NEWARK.NJ
ALBUQUERQUE	NM	X04879	1	1440	1/55-12/64	23050		FB	495	495	6250	SL	X.S.ECL14691.ALBUQUER.NM
ALBUQUERQUE	NM	X12286	1	SOLMET	1/52-12/75	23050	UNCH	FB	163	3912	6250	SL	X.S.ECL14691.ALBUQUER.NM
ALBUQUERQUE	NM	X14770	1	CD144	1/82-12/82	23050		FB	80	8000	6250	SL	X.S.ECL14691.ALBUQUER.NM
ALBANY	NY	X03618	1	1440EA	1/45-12/78	14735		FB	495	1980	6250	SL	X.S.ECL14691.ALBANY.NY
ALBANY	NY	X22869	1	CD144	1/70-12/74	14735	UNCH	FB	80	8000	6250	SL	X.S.ECL14691.ALBANY.NY
ALBANY	NY	X16335	4	MIXING	1/70-12/74	14735	UNCH	FB	34	3400	6250	SL	X.S.ECL14691.ALBANY.NY.F4
HEMPSTEAD	NY	X18504	1	1440EA	1/49- 4/61	14708		FB	495	1980	6250	SL	X.S.ECL14691.HEMPSTEA.NY
NEWBURG	NY	X20549	1	1440	1/59-12/68	14714		FB	495	495	6250	SL	X.S.ECL14691.NEWBURG.NY
NY JFK	NY	X18820	1	1440	1/55-12/76	94789		FB	495	495	6250	SL	X.S.ECL14691.JFK.NY
NY JFK	NY	X16335	2	MIXING	1/70-12/78	94789	UNCH	FB	34	3400	6250	SL	X.S.ECL14691.JFK.NY.F2
NY LAGUARDIA	NY	X22584	1	1440EA	7/48-12/78	14732		FB	495	1980	6250	SL	X.S.ECL14691.LAGUARDI.NY
ROCHESTER	NY	X20848	1	1440	1/59-12/73	14768		FB	495	495	6250	SL	X.S.ECL14691.ROCHESTR.NY
WHITE PLAINS	NY	X08795	1	CD144	1/74-12/78	94745	UNCH	FB	80	8000	6250	SL	X.S.ECL14691.WTPLAINS.NY
CLEVELAND	OH	X09487	1	1440	1/62-12/71	14820		FB	495	495	6250	SL	X.S.ECL14691.CLEVELAN.OH
COLUMBUS	OH	X04994	1	CD144	1/70-12/81	14821	3HR	FB	80	8000	6250	SL	X.S.ECL14691.COLUMBUS.OH
COLUMBUS	OH	X20194	1	1440	1/48-12/58	14821		FB	495	495	6250	SL	X.S.ECL14691.COLUMBUS.OH
PHILADELPHIA	PA	X23684	1	1440	1/55-12/64	13739		FB	495	495	6250	SL	X.S.ECL14691.PHILADELPH.PA.FIL1
PHILADELPHIA	PA	X23684	2	1440	1/69-12/74	13739		FB	495	495	6250	SL	X.S.ECL14691.PHILADELPH.PA.FIL1
PITTSBURG	PA	X22321	1	CD144	1/78-12/78	94823		FB	80	8000	6250	SL	X.S.ECL14691.PITTSBUR.PA
PITTSBURG	PA	X16335	7	MIXING	1/70-12/78	94823	UNCH	FB	34	3400	6250	SL	X.S.ECL14691.PITTSBUR.PA.F7
SAN JUAN	PR	X14735	1	1440	1/65-12/73	11641		FB	495	495	6250	SL	X.S.ECL14691.SANJUAN.PR
PROVIDENCE	RI	X23676	1	CD144	1/70-12/81	14765	YES	FB	80	8000	6250	SL	X.S.ECL14691.PROVIDEN.RI
PROVIDENCE	RI	X08313	1	1440EA	1/48-12/76	14765		FB	495	1980	6250	SL	X.S.ECL14691.PROVIDEN.RI

OMTL X-TAPE LIST (Contd.)

HIGH-DENSITY CITY	SL ST	X-TAPE VOLSER	LIST F#	- LAST FORMAT	REVISED DATES	3/18/83 STAT#	(CONTINUED) WARN	RECFM	LRECL	BLKSIZE	DEN	LABEL	DSN
QUANSETT PT	RI	X22572	1	1440DA	3/45- 4/74	14788	YES	FB	495	1980	6250	SL	X.S.ECL14691.QUANSETT.RI
QUANSETT PT	RI	X22572	2	1440DA	2/48-12/53	14789		FB	495	1980	6250	SL	X.S.ECL14691.QUANSETT.RI
GREENVILLE	SC	X02327	1	1440	1/67-12/76	03870		FB	495	495	6250	SL	X.S.ECL14691.GREENVIL.SC
CHATTANOOGA	TN	X01012	1	1440	1/65-12/74	13882		FB	495	495	6250	SL	X.S.ECL14691.CHATTANO.TN
KNOXVILLE	TN	X23072	1	CD144	1/48-12/81	13891	3HR	FB	80	8000	6250	SL	X.S.ECL14691.KNOXVILL.TN
KNOXVILLE	TN	X19955	1	1440	1/55-12/64	13891		FB	495	495	6250	SL	X.S.ECL14691.KNOXVILL.TN
MEMPHIS	TN	X09347	1	1440	1/65-12/74	13893	YES	FB	495	495	6250	SL	X.S.ECL14691.MEMPHIS.TN
NASHVILLE	TN	X14852	1	1440	1/65-12/74	13897		FB	495	495	6250	SL	X.S.ECL14691.NASHVILL.TN
AUSTIN	TX	X20902	1	1440	7/48-12/72	13958		FB	495	495	6250	SL	X.S.ECL14691.AUSTIN.TX
DALLAS	TX	X08631	1	1440	1/55-12/64	13960	YES	FB	495	495	6250	SL	X.S.ECL14691.DALLAS.TX
FT WORTH	TX	X14335	1	1440	5/53-12/72	03927	YES	FB	495	495	6250	SL	X.S.ECL14691.FTWORTH.TX
FT WORTH	TX	X14335	2	1440	1/49-12/58	13911	UNCH	FB	495	495	6250	SL	X.S.ECL14691.FTWORTH.TX
FT WORTH	TX	X14335	3	1440	1/60-12/69	13911	UNCH	FB	495	495	6250	SL	X.S.ECL14691.FTWORTH.TX
HOUSTON	TX	X20845	1	1440	7/48- 5/69	12918	YES	FB	495	495	6250	SL	X.S.ECL14691.HOUSTON.TX
HOUSTON	TX	X20845	2	1440	6/69-12/72	12960		FB	495	495	6250	SL	X.S.ECL14691.HOUSTON.TX
VICTORIA	TX	X11637	1	1440	2/53- 8/58	12912		FB	495	495	6250	SL	X.S.ECL14691.VICTORIA.TX
VICTORIA	TX	X11637	2	1440	7/61-12/72	12912		FB	495	495	6250	SL	X.S.ECL14691.VICTORIA.TX
WACO	TX	X08838	1	1440	7/48-12/58	13959		FB	495	495	6250	SL	X.S.ECL14691.WACO.TX
WACO	TX	X08838	2	1440	1/62-12/68	13959		FB	495	495	6250	SL	X.S.ECL14691.WACO.TX
FT EUSTIS	VA	X14548	1	1440	1/60-12/70	93735	YES	FB	495	495	6250	SL	X.S.ECL14691.FTEUSTIS.VA
SEATTLE/TAKOMA	WA	X20538	1	1440	1/55-12/64	24233		FB	495	495	6250	SL	X.S.ECL14691.SEATTLE.WA
MILWAUKEE	WI	X04058	1	CD144	1/70-12/81	14839	3HR	FB	80	8000	6250	SL	X.S.ECL14691.MILWAUKEE.WI
CHEYENNE	WY	X14604	1	1440	1/55-12/64	24018	YES	FB	495	495	6250	SL	X.S.ECL14691.CHEYENNE.WY
CHEYENNE	WY	X14604	2	1440	1/69-12/74	24018		FB	495	495	6250	SL	X.S.ECL14691.CHEYENNE.WY

OMTL X-TAPE LIST (Contd.)

XV. OMTL MASTER TAPE LIST

Description of the entries under each heading in the master tape list:

Site and Data Considerations:

"CITY"	-	City at or near the weather station																		
"ST"	-	State																		
"VOLSER"	-	Volume serial number of master tape																		
"F#"	-	(following VOLSER) file number on the master tape																		
"XVS#"	-	Volume serial number of X-tape copy of the master tape																		
"F#"	-	(following XVS#) file number on the X-tape																		
"FORMAT"	-	Weather data format																		
"DATES"	-	Dates covered by the master tape data																		
"STAT#"	-	Station number																		
"WARN"	-	Abnormalities in the data on the master tape?																		
		<table> <tr> <td>"YES!"</td><td>-</td><td>Master tape is defective and should not be used.</td></tr> <tr> <td>"YES"</td><td>-</td><td>Data contain abnormalities, possibly including but not restricted to three-hour observation intervals.</td></tr> <tr> <td>"3HR"</td><td>-</td><td>Data contains three-hour observation intervals but is otherwise normal.</td></tr> <tr> <td>"nSTN"</td><td>-</td><td>Data file contains n or more unique stations but is otherwise normal.</td></tr> <tr> <td>"LOST"</td><td>-</td><td>Master tape has been lost.</td></tr> <tr> <td>"UNCH"</td><td>-</td><td>Master tape unchecked for missing observations.</td></tr> </table>	"YES!"	-	Master tape is defective and should not be used.	"YES"	-	Data contain abnormalities, possibly including but not restricted to three-hour observation intervals.	"3HR"	-	Data contains three-hour observation intervals but is otherwise normal.	"nSTN"	-	Data file contains n or more unique stations but is otherwise normal.	"LOST"	-	Master tape has been lost.	"UNCH"	-	Master tape unchecked for missing observations.
"YES!"	-	Master tape is defective and should not be used.																		
"YES"	-	Data contain abnormalities, possibly including but not restricted to three-hour observation intervals.																		
"3HR"	-	Data contains three-hour observation intervals but is otherwise normal.																		
"nSTN"	-	Data file contains n or more unique stations but is otherwise normal.																		
"LOST"	-	Master tape has been lost.																		
"UNCH"	-	Master tape unchecked for missing observations.																		
"ORIGIN"	-	Date master tape was written																		

Master Tape JCL Considerations

"RECFM"	-	Record format (almost invariably "FB" for fixed block)						
"LRECL"	-	Logical record length (bytes)						
"BLKSIZE"	-	Blocksize (bytes)						
"DEN"	-	Tape density (bits per inch)						
"LABEL"	-	Label						
		<table> <tr> <td>"SL"</td><td>-</td><td>IBM standard-labeled</td></tr> <tr> <td>"NL"</td><td>-</td><td>nonlabeled</td></tr> </table>	"SL"	-	IBM standard-labeled	"NL"	-	nonlabeled
"SL"	-	IBM standard-labeled						
"NL"	-	nonlabeled						
"OLDMVS"	-	Old master tape volume serial number (names by which the master tape may be referred to in old references or JCL)						
"OLDXVS"	-	Old X-tape copy (lower density & nonlabeled) volume serial number (names by which the data may be referred to in old JCL)						

Both the "OLDMVS" and the "OLDXVS" lists were provided primarily to allow users with old JCL to crosscheck and update their JCL with the VOL=SER number of the newer X-tape copies. The X-tapes given under the "OLDXVS" heading will be retired effective June 1, 1983.

MASTER TAPE LIST - LAST REVISED 3/18/83

CITY	ST	VOLSER	F#	XVS#	F#	FORMAT	DATES	STAT#	WARN	ORIGIN	RECFM	LRECL	BLKSIZE	LEN	LABEL	OLDMVS	OLDXVS
1 NORTHEAST		WTMYR1	1	X20860	1	TMY	-----			6/30/81	FB	132	3168	1600	NL		
2 SOUTHEAST		WTMYR2	1	X20867	1	TMY	-----			6/30/81	FB	132	3168	1600	NL		
3 LOW MISS VAL		WTMYR3	1	X20893	1	TMY	-----			5/ 4/81	FB	132	3168	1600	NL		
4 GREAT LAKES		WTMYR4	1	X20868	1	TMY	-----		YES	5/17/81	FB	132	3168	1600	NL		
5 UP MISS VAL		WTMYR5	1	X20892	1	TMY	-----		YES	6/30/81	FB	132	3168	1600	NL		
6 TX & NM		WTMYR6	1	X20894	1	TMY	-----			5/ 5/81	FB	132	3168	1600	NL		
7 ROCKIES & SW		WTMYR7	1	X08762	1	TMY	-----			6/30/81	FB	132	3168	1600	NL		
8 PACIFIC COAST		WTMYR8	1	X16580	1	TMY	-----			6/30/81	FB	132	3168	1600	NL		
9 AK, HI & ISLES		WTMYR9	1	X08415	1	TMY	-----			6/30/81	FB	132	3168	1600	NL		
TRY TAPE 1		WTRYM1	1	X22585	1	TRY	SN: 03927 - 13897			8/21/81	FB	80	1920	800	NL	W04307	X18762
TRY TAPE 2		WTRYM2	1	X07578	1	TRY	SN: 13967 - 23047			5/ 9/77	FB	80	1920	800	NL	37039	X06153
TRY TAPE 3		WTRYM3	1	X23119	1	TRY	SN: 23050 - 94847			5/ 9/77	FB	80	1920	800	NL	29381	X04990
BIRMINGHAM	AL	W13876	1	X01793	1	CD144	1/70-12/81 13876	3HR		7/19/82	FB	80	800	1600	NL		
HUNTSVILLE	AL	W03856	1	X14899	1	1440	1/65-12/74 08356			6/15/75	FB	495	495	800	NL	27615	X20668
BLYTHERVILLE	AR	A13814	1	X19573	1	1440	1/55-12/65 13814	YES		9/22/77	FB	495	495	800	NL	51841	X19838
BLYTHERVILLE	AR	B13814	1	X19573	1	1440	1/66-12/70 13814			9/22/77	FB	495	495	800	NL	30141	X19999
LITTLE ROCK	AR	W13963	1	X14957	1	CD144	7/48-12/81 13963	YES		6/10/82	FB	80	800	1600	NL		
PHOENIX	AZ	A23183	1	X00723	1	1440	1/55-12/64 23183			7/25/73	FB	495	495	800	NL	18162	X10276
PHOENIX	AZ	B13814	1	X00723	2	1440	1/69-12/74 23183			3/24/76	FB	495	495	800	NL	29324	X16566
BLYTHER	CA	W23185	1	X04027	1	1440	1/48-12/54 23185			4/18/77	FB	495	495	800	NL	28541	X19721
FRESNO	CA	W93193	1	X15236	1	CD144	1/70-12/81 93193	YES		7/19/82	FB	80	800	1600	NL		
OAKLAND	CA	W23230	1D	X22287	1	CD144	1/60-12/64 23230	5STN		5/13/82	FB	80	800	1600	NL	W09382	
OAKLAND	CA	M23230	1	X16335	1	MIXING	1/60-12/64 23230			5/13/82	FB	34	340	1600	NL	W03053	
SAN DIEGO	CA	W23188	1	X15743	1	1440	1/55-12/64 23188			7/25/73	FB	495	495	800	NL	18157	X12145
WASHINGTON	DC	A13743	1	X15759	1	1440	1/55-12/64 13743			4/16/73	FB	495	495	800	NL	10344	
WASHINGTON	DC	B13743	1	X15759	2	1440	1/72-12/74 13743			3/22/76	FB	495	495	800	NL	32856	
WASHINGTON	DC	A13705	1	X15759	3	1440	1/61-12/70 13705			5/29/76	FB	495	495	800	NL	33331	
WASHINGTON	DC	S93734	1	X14813	1	SOLMET	1/52-12/75 93734	UNCH		7/21/78	FB	163	3912	1600	NL	X8853 & X9304	
WILMINGTON	DE	W13781	1	X05348	1	1440	1/62-12/71 13781			8/24/73	FB	495	495	800	NL	X00592?	
MIAMI	FL	W12839	1	X04668	1	1440	1/55-12/64 12839			7/25/73	FB	495	495	800	NL	18155	X20743
MIAMI	FL	A12839	1	X06767	1	1440DA	1/48-12/81 12839	YES		11/16/82	FB	495	1980	4250	NL	(ASCII)	
ATHENS	GA	A13873	1	X20502	1	1440	9/55-12/64 13873	YES		6/24/77	FB	495	495	800	NL	30407	
ATHENS	GA	B13873	1	X20502	1	1440	1/65-12/76 13873			6/24/77	FB	495	495	800	NL	51080	
ATHENS	GA	M14735	1C	X16335	6	MIXING	1/74-12/78 13873	3STN		5/13/82	FB	34	340	1600	NL	W09438	
ATHENS	GA	U13873	1	NOCOPY	-	SOUND	9/66- 5/70 13873	UNCH		8/24/77	FB	2000	2000	800	NL	52630	
ATLANTA	GA	A13874	1	X12389	1	1440	1/45-12/48 13874			6/24/77	FB	495	495	800	NL	34852	
ATLANTA	GA	B13874	1	X12389	1	1440	1/49-12/58 13874	YES		6/24/77	FB	495	495	800	NL	36865	
ATLANTA	GA	C13874	1	X12389	1	1440	1/59-12/68 13874			6/24/77	FB	495	495	800	NL	51552	
ATLANTA	GA	D13874	1	X12389	1	1440	1/69-12/76 13874			6/24/77	FB	495	495	800	NL	51023	
ATLANTA	GA	W13874	1	X05751	1	1440	1/55-12/64 13874			3/ 4/70	FB	495	495	800	NL	X14305	
AUGUSTA	GA	A03820	1	X16497	1	1440	1/49-12/58 03820	YES		6/24/77	FB	495	495	800	NL	12929	
AUGUSTA	GA	B03820	1	X16497	1	1440	1/59-12/68 03820			6/24/77	FB	495	495	800	NL	36156	
AUGUSTA	GA	C03820	1	X16497	1	1440	1/69-12/76 03820			6/24/77	FB	495	495	800	NL	11558	
AUGUSTA	GA	W23230	1A	X07514	1	CD144	1/74-12/78 03820	5STN		5/13/82	FB	80	800	1600	NL	W09382	
MACON	GA	A03813	1	X21510	1	1440	12/48-12/58 03813			6/24/77	FB	495	495	800	NL	31751	
MACON	GA	B03813	1	X21510	1	1440	1/59-12/68 03813			6/24/77	FB	495	495	800	NL	25730	
MACON	GA	C03813	1	X21510	1	1440	1/69-12/76 03813			6/24/77	FB	495	495	800	NL	31941	
ROME	GA	A93801	1	X21219	1	1440	1/48-12/58 93801			6/24/77	FB	495	495	800	NL	25241	
ROME	GA	B93801	1	X21219	1	1440	1/59-12/68 93801			6/24/77	FB	495	495	800	NL	38281	
ROME	GA	C93801	1	X21219	1	1440	1/69-12/76 93801	YES		6/24/77	FB	495	495	800	NL	51069	
DES MOINES	IA	W14933	1	X11525	1	CD144	1/70-12/80 14933	3HR		7/19/82	FB	80	800	1600	NL		
CHICAGO	IL	W94846	1A	X16756	1	1440	1/55-10/58 14810	YES!		4/13/73	FB	495	495	800	NL	12774	X11268
CHICAGO	IL	W94846	1B	X16756	2	1440	11/58-12/64 94846	YES!		4/13/73	FB	495	495	800	NL	12774	X11268
CHICAGO	IL	W14819	1	X16756	3	1440	1/65-12/74 14819			8/15/75	FB	495	495	800	NL	28188	X15998

OMTL MASTER TAPE LIST

MASTER TAPE LIST - LAST REVISED 3/18/83 (CONTINUED)

CITY	ST	VOLSER	F#	XVS#	F#	FORMAT	DATES	STAT#	WARN	ORIGIN	RECFM	LRECL	BLKSIZE	DEN	LABEL	OLDMVS	OLDXVS
PEORIA	IL	M03879	1C	X16335	10	MIXING	1/73-12/77	14842	YES	1/18/79	FB	34	340	6250	NL		
SALEM	IL	M03879	1A	X16335	8	MIXING	1/72-12/72	03879	3STN	1/18/79	FB	34	340	6250	NL		
SALEM	IL	M03879	1B	X16335	9	MIXING	1/75-12/75	03879	YES	1/18/79	FB	34	340	6250	NL		
SPRINGFIELD	IL	W93822	1B	X20232	1	CD144	1/73-12/77	93822	YES	1/ 9/79	FB	80	800	6250	NL		
INDIANAPOLIS	IN	W93819	1	X05646	1	1440	1/55-12/64	93819		8/22/74	FB	495	495	800	NL	13805	X10598
KANSAS CITY	KS	W13988	1	X20775	1	1440	1/55-12/64	13988		7/25/73	FB	495	495	800	NL	18163	X05572
TOPEKA	KS	A13996	1	X08212	1	1440	1/48-12/58	13996		5/28/74	FB	495	495	800	NL	19346	
TOPEKA	KS	B13996	1	X08212	1	1440	1/59-12/68	13996		5/28/74	FB	495	495	800	NL	15950	
TOPEKA	KS	C13996	1	X08212	1	1440	1/69-12/73	13996		5/28/74	FB	495	495	800	NL	23693	
COVINGTON	KY	D93814	1	X20774	1	1440	1/65-12/74	93814		11/10/77	FB	495	495	800	NL	H10198	
COVINGTON	KY	A93814	1	NOCOPY	-	1440	1/65-12/74	93814	YES!	5/18/75	FB	495	495	800	NL	23247	X11595
FT CAMPBELL	KY	W13806	1	X06050	1	1440	1/60-12/70	13806		6/15/75	FB	495	495	800	NL	17124	X12546
LOUISVILLE	KY	W93821	1	X16769	1	1440	1/55-12/64	93821		9/ 6/74	FB	495	495	800	NL	24764	X15996
ALEXANDRIA	LA	A13934	1	X18907	1	1440	4/52-12/62	13934	YES	12/12/74	FB	495	495	800	NL	25996	
ALEXANDRIA	LA	B13934	1	X18907	1	1440	1/63-12/70	13934	YES	12/12/74	FB	495	495	800	NL	26008	
ALEXANDRIA	LA	A13935	1	X18907	2	1440	2/60-12/71	13935		12/12/74	FB	495	495	800	NL	26012	
ALEXANDRIA	LA	B13935	1	X18907	2	1440	1/72-12/73	13935		12/12/74	FB	495	495	800	NL	26014	
BATON ROUGE	LA	W13970	1	NOCOPY	??????	1440	1/63-12/72	13970	LOST	2/20/74	??	???	???	???	??	13347	X14292?
NEW ORLEANS	LA	W12916	1	X09913	1	1440	1/55-12/64	12916		7/25/73	FB	495	495	800	NL	18161	X00109
BOSTON	MA	W14739	1	X13828	1	1440DA	1/45-12/79	14739	YES	1/ 2/81	FB	495	1980	6250	NL	W08643	
BOSTON	MA	A14739	1	NOCOPY	-	1440	1/55-12/64	14739		3/ 4/70	FB	495	495	800	NL		X09556
BOSTON	MA	B14739	1	NOCOPY	-	1440	1/65-12/76	14739	YES	5/23/77	FB	495	495	800	NL	50055	X05057
CHICOPEE	MA	W14703	1	X10258	1	1440	1/58-12/67	14703		5/31/74	FB	495	495	800	NL	22926	X00967
S WEYMOUTH	MA	W14790	1	X23908	1	1440DA	1/54-12/77	14790		7/24/78	FB	495	1980	800	NL	L56107	
BALTIMORE	MD	W93721	1	X09918	1	1440	1/55-12/64	93721		4/16/73	FB	495	495	800	NL	16092	
BANGOR	ME	A12839	1B	X18705	1	1440DA	2/72-12/81	14606	YES	11/16/82	FB	495	1980	6250	NL	(ASCII)	
PORTLAND	ME	M14764	1	X16335	12	MIXING	1/70- 4/79	14764		1/ 6/81	FB	34	340	6250	NL	W00243	
FLINT	MI	A14826	1	X21046	1	1440	12/48-12/58	14826	YES	3/11/74	FB	495	495	800	NL	18114	
FLINT	MI	B14826	1	X21046	1	1440	1/59-12/68	14826	YES	3/11/74	FB	495	495	800	NL	20191	
FLINT	MI	C14826	1	X21046	1	1440	1/69-12/72	14826		3/11/74	FB	495	495	800	NL	20214	
FLINT	MI	W23230	1C	X06128	1	CD144	1/70-12/74	14826	YES	5/13/82	FB	80	800	1600	NL	W09382	
FLINT	MI	M14735	1B	X16335	5	MIXING	1/70-12/74	14826	3STN	5/13/82	FB	34	340	1600	NL	W09438	
SAGINAW	MI	W14845	1	X13599	1	1440	12/48-12/54	14845		3/11/74	FB	495	495	800	NL	10930	
MINNEAPOLIS	MN	A14922	1	X19688	1	1440	1/49-12/58	14922		3/ 4/70	FB	495	495	800	NL		X14401
MINNEAPOLIS	MN	B14922	1	X12588	1	CD144	1/73-12/77	14922		8/ 8/79	FB	80	800	800	NL		X12406
ST CLOUD	MN	M14926	1	X16335	11	MIXING	1/73-12/77	14926		8/ 8/79	FB	34	340	800	NL	L63515	
ST LOUIS	MO	W13994	1	X23737	1	CD144	1/70-12/81	13994	YES	7/19/82	FB	80	800	1600	NL		
ST LOUIS	MO	W93822	1A	NOCOPY	CD144	1440	1/73-12/77	13994		1/19/82	FB	80	800	6250	NL		
CHARLOTTE	NC	W13881	1	X09553	1	1440	1/55-12/64	13881		4/23/74	FB	495	495	800	NL	10451	X14781
WINSTON-SALEM	NC	W93807	1	X18747	1	1440	1/55-12/64	93807		4/23/74	FB	495	495	800	NL	21253	
NORTH PLATTE	NE	W24023	1	X08412	1	CD144	1/75-12/79	24023		7/ 7/82	FB	80	800	1600	NL	W00618	
NORTH PLATTE	NE	W23230	1E	NOCOPY	CD144	1440	1/75-12/79	24023	3HR	5/13/82	FB	80	800	1600	NL	W09382	
NORTH PLATTE	NE	M24023	1	X16335	13	MIXING	1/75-12/79	24023		5/18/82	FB	34	340	1600	NL	W11099	
OMAHA	NE	W14942	1	X20511	1	1440	1/65-12/74	14942		1/27/76	FB	495	495	800	NL	27395	X11715
(WEST) LEBANON	NH	W14776	1	X03491	1	1440DA	1/49-12/58	14776		7/24/78	FB	495	1980	800	NL	51192	
LEBANON	NH	W94765	1	X03491	2	1440DA	1/59-12/64	94765		7/24/78	FB	495	1980	800	NL	56748	
CONCORD	NH	A14745	1	X18161	1	1440DA	1/48-12/63	14745		8/28/78	FB	495	1980	800	NL	L53968	
CONCORD	NH	B14745	1	X18161	1	1440DA	1/64-12/77	14745		8/28/78	FB	495	1980	800	NL	L35392	
MANCHESTER	NH	W14710	1	X23316	1	1440DA	1/49- 6/68	14710		7/24/78	FB	495	1980	800	NL	L56865	
--> ALSO ON MASTER TAPE FOR HEMPSTEAD, NY (FOLLOWING HEMPSTEAD DATA ON FILE 1): W14708																	
(MANCHESTER	NH	W14708	1B	NOCOPY	-	1440DA	1/49- 6/68	14708	2STN	4/26/77	FB	495	1980	1600	NL	26770	
PORTSMOUTH	NH	W94735	1	X10356	1	1440DA	12/46- 8/52	94735	YES	7/24/78	FB	495	1980	800	NL	L19210	
PORTSMOUTH	NH	W04743	1	X10356	2	1440DA	4/56-12/74	04743		7/24/78	FB	495	1980	800	NL	L54476	

OMTL MASTER TAPE LIST (Contd.)

MASTER TAPE LIST - LAST REVISED 3/18/83 (CONTINUED)

CITY	ST	VOLSER	F#	XVS#	F#	FORMAT	DATES	STAT#	WARN	ORIGIN	RECFM	LRECL	ELKSIZE	DEN	LABEL	OLDMVS	OLDXVS
NEWARK	NJ	W14734	1	X23335	1	1440	1/77-12/77	14734		4/23/78	FB	495	495	800	NL	38535	
ALBUQUEFQUE	NM	W23050	1	X04879	1	1440	1/55-12/64	23050		10/19/77	FB	495	495	800	NL	20811	X05484
ALBUQUEFQUE	NM	S23050	1	X12286	1	SOLMET	1/52-12/75	23050	UNCH	7/21/78	FB	163	3912	1600	NL		X7245 & X8597
ALBUQUEFQUE	NM	A23050	1	X14770	1	CD144	1/82-12/82	23050		3/15/83	FB	80	800	1600	NL	W12429	
ALBANY	NY	W14735	1	X03618	1	1440DA	1/45-12/78	14735		9/25/79	FB	495	1980	1600	NL	21244	
ALBANY	NY	A14735	1	NOCOPY	-	1440	1/65-12/74	14735	YES!	8/15/75	FB	495	495	800	NL	25275	X15900
ALBANY	NY	W23230	1B	X22869	1	CD144	1/70-12/74	14735	YES	5/13/82	FB	80	800	1600	NL	W09382	
ALBANY	NY	M14735	1A	X16335	4	MIXING	1/70-12/74	14735	3STN	5/13/82	FB	34	340	1600	NL	W09438	
HEMPSTEAD	NY	W14708	1A	X18504	1	1440DA	1/49- 4/61	14708	2STN	4/26/77	FB	495	1980	1600	NL	26770	
--> ALSO ON MASTER TAPE FOR HEMPSTEAD, NY (FOLLOWING HEMPSTEAD DATA ON FILE 1): W14708																	
(MANCHESTER	NH)	W14708	1B	NOCOPY	-	1440DA	1/49- 6/68	14708	2STN	4/26/77	FB	495	1980	1600	NL	26770	
NEWBURG	NY	W14714	1	X20549	1	1440	1/59-12/68	14714		9/20/74	FB	495	495	800	NL	17103	X02088
NY JFK	NY	A94789	1	X18820	1	1440	1/55-12/64	94789		8/22/74	FB	495	495	800	NL	11145	X01767
NY JFK	NY	B94789	1	X18820	1	1440	1/65-12/76	94789		10/25/77	FB	495	495	800	NL	35838	
NY JFK	NY	X10677	1	X16335	2	MIXING	1/70-12/78	94789		8/ 1/80	FB	34	340	1600	NL		X19047
NY JFK	NY	M94789	1	NOCOPY	-	MIXING	1/70-12/77	94789	YES!	3/13/80	FB	34	340	1600	NL	71703	
NY JFK	NY	N94789	1	NOCOPY	-	MIXING	1/78-12/78	94789		3/12/80	FB	34	340	1600	NL	77645	
NY LAGUARDIA	NY	W14732	1	X22584	1	1440DA	7/48-12/78	14732		5/ 2/80	FB	495	1980	1600	NL		X13262
ROCHESTER	NY	A14768	1	X20848	1	1440	1/59-12/68	14768		1/15/75	FB	495	495	800	NL	16620	X11498
ROCHESTER	NY	B14768	1	X20848	1	1440	1/69-12/73	14768		1/15/75	FB	495	495	800	NL	25756	
WESTHAMPTON	NY	W14719	-	X05856	-	-	-	-	YES!	-	-	-	-	-	-	-	-
WHITE PLAINS	NY	W94745	1	X08795	1	CD144	1/74-12/78	94745	YES	1/19/82	FB	80	800	6250	NL	W06516	
CLEVELAND	OH	W14820	1	X09487	1	1440	1/62-12/71	14820		8/24/73	FB	495	495	800	NL	16468	X06078
COLUMBUS	OH	A14821	1	X04994	1	CD144	1/70-12/81	14821	3HR	7/19/82	FB	80	800	1600	NL		
COLUMBUS	OH	W14821	1	X20194	1	1440	1/48-12/58	14821		1/27/75	FB	495	495	800	NL	X01530	X10808
ERIE	PA	-	-	NOCOPY	-	??????	1/48-12/76	-		-	-	-	-	-	-	-	-
PHILADELPHIA	PA	A13739	1	X23684	1	1440	1/55-12/64	13739		4/ 1/70	FB	495	495	800	NL		X10563
PHILADELPHIA	PA	B13739	1	X23684	2	1440	1/69-12/74	13739		3/24/76	FB	495	495	800	NL	23596	X03053
PITTSBURG	PA	W94823	1	X22321	1	CD144	1/78-12/78	94823		10/12/80	FB	80	800	1600	NL	W01869	
PITTSBURG	PA	M94823	1	X16335	7	MIXING	1/70-12/78	94823		10/18/80	FB	34	340	1600	NL	W08038	
PITTSBURG	PA	N94823	1	NOCOPY	-	MIXING	1/78-12/78	94823	YES	10/ 4/80	FB	34	340	800	NL	W04143	& W81952
SAN JUAN	PR	W11641	1	X14735	1	1440	1/65-12/73	11641		1/31/75	FB	495	495	800	NL	26758	
PROVIDENCE	RI	W14765	1	X23676	1	CD144	1/70-12/81	14765	YES	7/19/82	FB	80	800	1600	NL		
PROVIDENCE	RI	A14765	1	X08313	1	1440DA	1/48-12/64	14765		11/28/77	FB	495	1980	800	NL	24416	X04717
PROVIDENCE	RI	B14765	1	X08313	1	1440DA	1/65-12/76	14765		11/28/77	FB	495	1980	800	NL	53118	X08737
QUANSETT PT	RI	A14788	1	X22572	1	1440DA	3/45- 6/70	14788	YES	6/26/78	FB	495	1980	800	NL	34275	X04501
QUANSETT PT	RI	B14788	1A	X22572	1	1440DA	6/70- 4/74	14788	2STN	6/26/78	FB	495	1980	800	NL	56182	X18002
QUANSETT PT	RI	B14788	1B	X22572	2	1440DA	2/48-12/53	14789	2STN	6/26/78	FB	495	1980	800	NL		
GREENVILLE	SC	W03870	1	X02327	1	1440	1/67-12/76	03870		7/12/77	FB	495	495	800	NL	19199	X05627
CHATTANOOGA	TN	W13882	1	X01012	1	1440	1/65-12/74	13882		6/15/75	FB	495	495	800	NL	23554	X20271
KNOXVILLE	TN	A13891	1	X23072	1	CD144	1/48-12/81	13891	3HR	6/10/82	FB	80	800	1600	NL		
KNOXVILLE	TN	W13891	1	X19955	1	1440	1/55-12/64	13891		11/ 3/69	FB	495	495	800	NL		X19803
MEMPHIS	TN	W13893	1	X09347	1	1440	1/65-12/74	13893	YES	5/ 6/75	FB	495	495	800	NL	28171	X11951
NASHVILLE	TN	W13897	1	X14852	1	1440	1/65-12/74	13897		5/ 6/75	FB	495	495	800	NL	19620	X14619
AUSTIN	TX	A13958	1	X20902	1	1440	7/48-12/58	13958		3/11/74	FB	495	495	800	NL	21765	X10957
AUSTIN	TX	B13958	1	X20902	1	1440	1/59-12/68	13958		3/11/74	FB	495	495	800	NL	21715	X01469
AUSTIN	TX	C13958	1	X20902	1	1440	1/69-12/72	13958		3/11/74	FB	495	495	800	NL	20486	X06223
DALLAS	TX	W13960	1	X08631	1	1440	1/55-12/64	13960	YES	7/25/73	FB	495	495	800	NL	18164	X09893
FT WORTH	TX	A03927	1	X14335	1	1440	5/53-12/58	03927		12/ 3/73	FB	495	495	800	NL	13136	X08772
FT WORTH	TX	B03927	1	X14335	1	1440	1/59-12/68	03927		12/ 3/73	FB	495	495	800	NL	17676	
FT WORTH	TX	C03927	1	X14335	1	1440	1/69-12/72	03927	YES	12/ 3/73	FB	495	495	800	NL	16008	
FT WORTH	TX	A13911	1	X14335	2	1440	1/49-12/58	13911		9/24/73	FB	495	495	800	NL	10153	X10916?
FT WORTH	TX	B13911	1	X14335	3	1440	1/60-12/69	13911		8/15/73	FB	495	495	800	NL	18296	X11525?

OMTL MASTER TAPE LIST (Contd.)

MASTER TAPE LIST - LAST REVISED 3/18/83 (CONTINUED)

CITY	ST	VOLSER	F#	XVS#	F#	FORMAT	DATES	STAT#	WARN	ORIGIN	RECFM	LRECL	BLKSIZE	DEN	LABEL	OLDMVS	OLDXVS
HOUSTON	TX	A12918	1	X20845	1	1440	7/48-12/58	12918		3/11/74	FB	495	495	800	NL	12594	X04020
HOUSTON	TX	B12918	1	X20845	1	1440	1/59- 5/69	12918	YES	3/11/74	FB	495	495	800	NL	13185	X02251
HOUSTON	TX	A12960	1	X20845	2	1440	6/69-12/72	12960		3/11/74	FB	495	495	800	NL	12730	X11589
VICTORIA	TX	A12912	1	X11637	1	1440	2/53- 8/58	12912		7/ 8/74	FB	495	495	800	NL	16880	
VICTORIA	TX	B12912	1	X11637	2	1440	7/61-12/72	12912		7/ 8/74	FB	495	495	800	NL	19802	
WACO	TX	A13959	1	X08838	1	1440	7/48-12/58	13959		9/24/73	FB	495	495	800	NL	13131	X11182
WACO	TX	B13959	1	X08838	2	1440	1/62-12/68	13959		8/15/73	FB	495	495	800	NL	14917	X13364
FT EUSTIS	VA	W93735	1	X14548	1	1440	1/60-12/70	93735	YES	7/12/76	FB	495	495	800	NL	20735	X17773
SEATTLE/TAKOMA	WA	W24233	1	X20538	1	1440	1/55-12/64	24233		7/25/73	FB	495	495	800	NL	18156	
MILWAUKEE	WI	W14839	1	X04058	1	ED144	1/70-12/81	14839	3HR	7/19/82	FB	80	800	1600	NL		
CHEYENNE	WY	A24018	1	X14604	1	1440	1/55-12/64	24018	YES	3/27/74	FB	495	495	800	NL	21942	
CHEYENNE	WY	B24018	1	X14604	2	1440	1/69-12/74	24018		8/15/75	FB	495	495	800	NL	25261	X15591

MASTER TAPE LIST - HOURLY PRECIPITATION (TD-9655) AND DAILY PRECIPITATION (TD-9657) TAPES

REGION & YEARS	VOLSER	F#	XVS#	F#	FORMAT	STATIONS & DATES	WARN	ORIGIN	RECFM	LRECL	BLKSIZE	DEN	LABEL	OLDMVS
GEORGIA 1948-1976	HPGA01	1	NOCOPY	-	HRPRE	0010 - 1982(11/64)	UNCH	6/29/77	FB	960	960	800	NL	35932
GEORGIA 1948-1976	HPGA02	1	NOCOPY	-	HRPRE	1982(12/64) - 4230(4/60)	UNCH	6/29/77	FB	960	960	800	NL	51004
GEORGIA 1948-1976	HPGA03	1	NOCOPY	-	HRPRE	4230(5/60) - 7842(7/72)	UNCH	6/29/77	FB	960	960	800	NL	34970
GEORGIA 1948-1976	HPGA04	1	NOCOPY	-	HRPRE	7842(8/72) - 9805	UNCH	6/29/77	FB	960	960	800	NL	39363
GEORGIA 1948-1975	DPGA01	1	NOCOPY	-	DAYPRE	0010 - 2728	UNCH	6/22/77	FB	80	800	800	NL	51641
GEORGIA 1948-1975	DPGA02	1	NOCOPY	-	DAYPRE	2728 - 8504	UNCH	6/22/77	FB	80	800	800	NL	51640
GEORGIA 1948-1975	DPGA03	1	NOCOPY	-	DAYPRE	8504 - 9566	UNCH	6/22/77	FB	80	800	800	NL	29005

OMTL MASTER TAPE LIST (Contd.)

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APPENDIX A

1022 DATA BASE FOR METEOROLOGICAL X-TAPES

1. Source and Attributes

Information on X-tape copies of meteorological data available through the X-10 Computing Center has been stored on the ORNL PDP-10 in a file that may be read using System 1022. By using the 1022 data base management system, meteorological data users may very rapidly and very easily obtain a list of meteorological tapes satisfying any number of conditions. (Users who are unfamiliar with 1022 are referred to the 1022 Primer, Chapters 1 and 2)

For every weather X-tape with format 1440, CD144, SOLMET, or Mixing Heights, all of the following tape attributes are stored in the 1022 file DSKD:XTAPE.DMS[6137,270]...

"CITY"	- City at or near the weather station
"STATE" (ST)	- State
"VOL_SER_NUMBER" (VSN)	- Volume serial number of high-density standard-labeled X-tape
"FILE_NUMBER" (FILE)	- File number on the X-tape
"DATA_FORMAT" (FORM)	- Weather data format
"START_DATE" (SDATE)	- Starting date of X-tape data coverage
"END_DATE" (EDATE)	- Ending date of X-tape data coverage
"STATION_NUMBER" (SN)	- Station number
"WARNING" (WARN)	- Abnormalities in the data on the X-tape? - "YES" - Data contains abnormalities, possibly including but not restricted to three-hour observation intervals. - "3HR" - Data contains three-hour observation intervals but is otherwise normal. - "UNCH" - X-tape unchecked for missing observations.
"JCL_RECORD_FORMAT" (RECFM)	- Record format (almost invariably "FB" for fixed block)
"LOGICAL_RECORD_LENGTH" (LRECL)	- Logical record length (bytes)
"BLOCKSIZE" (BLKSZ)	- Blocksize (bytes)
"TAPE_DENSITY" (DEN)	- Tape density (bits per inch)
"TAPE_LABEL" (LABEL)	- Tape label - "SL" - IBM standard-labeled - "NL" - nonlabeled
"DATASET_NAME" (DSN)	- Data set name (i.e., filename)

In the above description, the full attribute name is enclosed in double quotes (") and an abbreviation, if one exists, follows enclosed by parentheses. Either form of the attribute name is acceptable to 1022.

2. Instructions and Examples

To use the ORNL PDP-10 X-tape description file, copy the file into your PDP-10 area...

.COPY =DSKD:XTAPE.DMS[6137,270]

Now run System 1022 and open the above-named 1022 file...

.R 1022

12/22/82

System 1022A 115A(207)

* OPEN XTAPE

*

Now you may specify the condition(s) defining the meteorological tapes you are interested in using. This is done by using the 1022 FIND command. Then any or all of the tape attributes given in the "Source and Attributes" section above may be listed on your terminal by using the 1022 PRINT command. The following examples should illustrate.

Example 1. Find all tapes with data for the state of Texas.

* FIND STATE = TX

11 RECS FOUND.

* PRINT CITY STATE START_DATE END_DATE DATA_FORMAT

AUSTIN	TX	7/01/1948	12/31/1972	1440
DALLAS	TX	1/01/1955	12/31/1964	1440
FT WORTH	TX	5/01/1953	12/31/1972	1440
FT WORTH	TX	1/01/1949	12/31/1958	1440
FT WORTH	TX	1/01/1960	12/31/1969	1440
HOUSTON	TX	7/01/1948	5/31/1969	1440
HOUSTON	TX	6/01/1969	12/31/1972	1440
VICTORIA	TX	2/01/1953	8/31/1958	1440
VICTORIA	TX	7/01/1963	12/31/1972	1440
WACO	TX	7/01/1948	12/31/1958	1440
WACO	TX	1/01/1962	12/31/1968	1440

Example 2. Find the location corresponding to station number 93735.

* FIND STATION_NUMBER = 93735

FOUND.

* PRINT CITY ST

FT EUSTIS VA

Example 3. Find all pertinent JCL information for tape X20232.

* FIND VSN - X20232

FOUND.

* PRINT VSN FILE RECFM LRECL BLKSZ DEN LABEL DSN
X20232 1 FB 80 8000 6250 SL X.S.ECL14691.SPRINGFI.IL

Example 4. Find all tapes with data for Atlanta, Georgia between the years 1968 and 1973.

* FIND CITY = ATLANTA AND STATE = GA AND SDATE LE 12/31/73-

AND EDATE GE 1/1/68

FOUND.

* PRINT FORM SDATE EDATE WARN VSN FILE

1440 1/01/1945 12/31/1976 YES X12389 1

APPENDIX B

1022 DATA BASE FOR METEOROLOGICAL MASTER TAPES

Information on master copies of meteorological data available through the ORNL Meteorological Tape Library has been stored on the ORNL PDP-10 in a file that may be read using System 1022. By using the 1022 data base management system, meteorological data users may very rapidly and very easily obtain a list of meteorological tapes satisfying any number of conditions. (Users who are unfamiliar with 1022 are referred to the 1022 Primer, Chapters 1 and 2.)

For every master tape with format 1440, CD144, SOLMET, or Mixing Heights, all of the following tape attributes are stored in the 1022 file DSKD:MASTER.DMS[6137,270]...

"CITY"	- City at or near the weather station
"STATE"	- State
"VOL_SER_NUMBER" (VSN)	- Volume serial number of master tape
"FILE_NUMBER" (FILE)	- File number on the master tape
"XTAPE_VOL_SER" (XVSN)	- Volume serial number of X-tape copy
"XTAPE_FILE" (XFILE)	- File number on the X-tape
"DATA_FORMAT" (FORM)	- Weather data format
"START_DATE" (SDATE)	- Starting date of master tape data coverage
"END_DATE" (EDATE)	- Ending date of master tape data coverage
"STATION_NUMBER" (SN)	- Station number
"WARNING" (WARN)	- Abnormalities in the data on the master tape?
"YES!"	- Master tape is defective and should not be used.
"YES"	- Data contain abnormalities, possibly including but not restricted to three-hour observation intervals.
"3HR"	- Data contain three-hour observation intervals but is otherwise normal.
"nSTN"	- Data file contains n unique stations but is otherwise normal.
"LOST"	- Master tape has been lost.
"UNCH"	- Master tape unchecked for missing observations.
"ORIGIN" (ORIG)	- Date master tape was written
"JCL_RECORD_FORMAT" (RECFM)	- Record format (almost invariably "FB" for fixed block)
"LOGICAL_RECORD_LENGTH" (LRECL)	- Logical Record Length (bytes)
"BLOCKSIZE" (BLKSZ)	- Blocksize (bytes)
"TAPE_DENSITY" (DEN)	- Tape density (bits per inch)
"TAPE_LABEL" (LABEL)	- Tape label
"SL"	- IBM standard-labeled
"NL"	- nonlabeled

"OLD_MASTER_VOLSER" (OLMVS)	- Old master tape volume serial number (names by which the master tape may be referred to in old references or JCL)
"OLD_XTAPE_VOLSER" (OLMVS)	- Old X-tape copy (lower density and nonlabeled) volume serial number (names by which the data may be referred to in old JCL)

In the above description, the full attribute name is enclosed in double quotes (") and an abbreviation, if one exists, follows enclosed by parentheses. Either form of the attribute name is acceptable to 1022.

To use the ORNL PDP-10 master tape description file, copy the file into your PDP-10 area...

.COPY =DSKD:MASTER.DMS[6137,270]

For additional instructions and examples, refer to Appendix A, section 2.

Internal Distribution

1.	C. F. Baes III	20.	S. Y. Ohr
2.	M. L. Ballou	21.	R. J. Olson
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16.	G. H. Llewellyn	31.	Document Reference
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17.	E. C. Long	32-33.	Laboratory Records
18.	H. A. McLain	34.	Laboratory Records - RC
19.	B. D. Murphy	35.	ORNL Patent Section

External Distribution

- 36. J. N. Rogers, Division 8324, Sandia Laboratories, Livermore, California 94550.
- 37. Division of Engineering, Mathematics and Geosciences, DOE, Washington, D. C. 20545.
- 38. Office of Assistant Mgr. for Energy Research and Development, DOE/ORO, Oak Ridge, Tennessee 37830.
- 39-65. Technical Information Center, P. O. Box 62, Oak Ridge, Tennessee 37830.

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OMTL Catalog

ORNL/CSD/TM-204

READER'S COMMENTS

Your comments and/or suggestions are encouraged as to the contents of this document or the ORNL Meteorological Tape Library. Please return to:

M. A. Bell
Bldg. 4500N, Room B212
Box X, Oak Ridge National Laboratory
Oak Ridge, Tennessee 37830

Your name, address, and phone number:

Comments: