

INDEX OF ORIGINAL SURFACE WEATHER RECORDS (HOURLY, SYNOPTIC AND AUTOGRAPHIC)



Indexes for the period of record through 1976 have been prepared for each of the 50 states, for the Pacific Islands, and for Puerto Rico and the U.S. Virgin Islands combined (information for the District of Columbia is included in the Maryland index). The indexes are assembled in pamphlet form and range in size from 15 pages for Delaware to 148 pages for California. These 52 indexes were produced as a part of ENDEX, the Environmental Data Index. ENDEX is designed to consolidate and automate existing indexes of environmental data to efficiently serve the needs of atmospheric and earth scientists.

Hourly aviation, synoptic, supplementary airways and similar observations available in manuscript form at the National Climatic Center for the 52 areas are listed in these indexes. Sample pages of the several types of indexes prepared for Illinois are shown in Exhibits 1, 2, 3, and 4 (Records Indexes -Alphabetic by Station, by Year, by Elevation and by Latitude, respectively). Information about unusual records, such as those which would help in plotting detailed synoptic weather maps, is also included. Information concerning autographic charts and traces has been included in the indexes since values of temperature, pressure, wind, humidity, etc., can be extracted from these records for use in the kinds of studies these indexes have been designed to aid. Information about records similar to the cooperative climatological daily observations is not included in these indexes.

One of the most valuable parts of these indexes is the station history information that is shown by the latitude-longitude and station elevation data. Extensive effort was made to pinpoint the station locations.

The records covered by this series of indexes form the major file of meteorological data within the United States. Begun by the Army Signal Service in the late 19th Century, some of the records have been preserved and passed on by succeeding government agencies. The records that are filed by the National Archives are not included in the indexes; nearly all of those records are for years prior to 1900.

Copies of the original records can be provided at the requester's expense in a number of forms, including paper copy, microfilm, microfiche or magnetic tape. For additional information concerning records subsequent to 1976 or the costs involved write to: National Climatic Center, Federal Building, Asheville, NC 28801.

DESCRIPTION OF INDEXES

Alphabetic

The alphabetic listing utilizes the names of the weather station preparing the observations. This is often the name of the city or community; occasionally, it is the name of a military installation, an airport, or a geographical feature. Cross-referencing has been inserted to help the user. For a given station, the records are listed in time order. When one becomes familiar with the index, this arrangement gives a quick, and almost pictorial, presentation of the weather station activity of each location. Station moves stand out.

By Year

The records are listed from the oldest to the newest to readily show which are available for studies based on many years of data. This arrangement also expedites the selection of

records when studying particular storms of the past. By referring to a specific year, all available records can be seen. An interesting feature of this index is the way in which it shows the expansion of the national meteorological network. From few entries per year in the early times, there is a marked increase with the advent of commercial aviation in the 1930's. The many stations shown during World War II and the post-War era are followed in most states by a shrinkage due to retrenchment in the more recent times.

By Elevation

This index will aid those looking for observations taken at various altitudes above sea level. Stations with unknown elevations are shown at the end of this list.

By Latitude

This index is abbreviated to give names and station history data for locating weather observing points on a geographical basis. This supplements the map.

EXPLANATION OF ENTRIES

Station Name

Long names are abbreviated. Commonly used abbreviations are:

- AP, APT - Airport
- Cty - City
- Fld - Field
- Ft - Fort
- Hb - Harbor
- Is - Island
- LB Sta - Light Boat Station
- Lk - Lake
- LS - Light Ship/Station
- Mt - Mount, Mountain
- Nk - Neck
- Pt - Point/Port
- Rck - Rock
- Rvr - River

Type

The type of weather station. This is sometimes best described by naming the service which operated the station. Codes used are:

Code Type of Station

WEATHER BUREAU (now known as NATIONAL WEATHER SERVICE)

A Aviation Reports & Coop-A Stations

Code Type of Station

WEATHER BUREAU (Continued)

- AC Cooperative Aviation Reports
- B Basic
- S Synoptic Reports
- SA Syoptic and Aviation Reports
- SAC Cooperative Synoptic and Aviation Reports
- SC Cooperative Synoptic Reports
- WBAS Weather Bureau Airport Station
- WBFO Weather Bureau Forecast Office
- WBMO Weather Bureau Meteorological Observatory
- WBO Weather Bureau Office
- WBUA Weather Bureau Upper Air Unit
- WSFO Weather Service Forecast Office
- WSMO Weather Service Meteorological Observatory
- WSO Weather Service Office

MILITARY

- AAB Army Air Base
- AAF Army Air Field
- AAFb Auxiliary Air Force Base
- AB Air Base (Air Force)
- AF Air Force
- AFB Air Force Base
- AFS Air Force Station
- ANG Air National Guard
- ASC Army
- MCAF Marine Corps Air Facility
- MCAS Marine Corps Air Station
- NAAF Naval Auxiliary Air Facility
- NAAS Naval Auxiliary Air Station
- NAF Naval Air Facility
- NAS Naval Air Station
- NF Naval Facility
- NS Naval Station

OTHERS

- AMOS Automatic Weather Station
- CAA Civil Aeronautics Administration Facility
- CG Coast Guard
- COOP Cooperative
- FAA Federal Aviation Agency
- FSS Flight Service Station (FAA)
- LAWR Limited Airport Weather Reporting Station (Tower)

<u>Code</u>	<u>Type of Station</u>
<u>OTHERS</u>	<u>Continued</u>
MARS	Marine Reporting Station
PAA	Pan American Airways
SAWR	Supplementary Airways
	Weather Reporting Station
SPL	Special Purpose Office (Fire weather, temporary observing sites)

Latitude, Longitude

The coordinates given for the station in the most authoritative documents available to the worker. Given in degrees and minutes.

Elevation

In feet. The height above sea level of the barometer was used if known. The reported station elevations and ground heights at the stations were used as first and second alternatives when necessary.

"Hourly" Records by Month

These are the records usually made for aviation purposes and are the most detailed observations made. Because of their importance, they have been indexed in greater detail than the other records. A number entry means that records are on file for that month. The value of the number is a code which tells the number of observations recorded per day.

Code for Observations per Day Used in the "Hourly" Records Columns:

Blank	-	No records
1	-	24 per day
2	-	(Not used)
3	-	3 or less obs per day
4	-	4
5	-	5 to 11
6	-	12 to 18
7	-	19 to 23
0	-	Records on microfilm only. See the film for number of obs per day.

A valuable source of information about data appearing on these forms through the years is: History of Weather Bureau Climatological Record Forms for Surface Synoptic and Airway Observations. (Key to Meteorological Records Documentation No. 2.211, Washington, DC, 1964. For sale by the Superintendent of Documents, Washington, DC 20402.)

Number of Months in Year with:

The records in these categories are so voluminous that it was felt an abbreviated index would suffice for nearly all purposes. In these columns, a 12 means that records are on file for every month. A blank means that no records are on file. 08 followed by a group of 12's will nearly always mean that records began in May of the first year and were continuous thereafter. Numbers higher than 50 mean that the records exist only on microfilm. In such cases, 50 has been added to the number of months available for that year.

Synoptic Form

Form B-15 (formerly Form 1083). This usually gives 4 observations per day in the special code used for reporting weather internationally. Examples of the forms are given in the publication listed previously under the explanation for "Hourly" records. Intermediate 3-hourly observations are sometimes included on the form; from July 1939 to December 1948 the 3-hourly observations may appear on a companion form (Form 1082). Some stations omitted the nighttime observations. Laymen find these forms difficult to use because of their special coding and the fact that times are often in GMT. "Hourly" records, if available, are usually preferable.

Meteorological Summary

Form 1001, and/or 1002, and/or 1014. These are the comprehensive station records kept by first-order Weather Stations from 1892 to 1948. A few stations have continued a modified form. Examples of the forms are given in the publication listed previously under the explanation for "hourly" records. A similar military record, Form 1, is also indexed under this category.

Barograms

A continuous record of pressure in which the oscillations have been traced by a pen on a moving sheet of paper. In the older records, a 1-inch change of pressure was shown as a 1-inch change on the chart. Beginning in 1936, the older instruments were replaced by microbarographs which magnified the change two and one-half times. At Weather Bureau stations each chart formerly contained 4 days' record. The exact times of pressure changes with squall lines, thunderstorms, and other

EXHIBIT 3 BY ELEVATION

ILLINOIS

ELEV.	NAME	TYPE	LAT.	LONG.	MBAN NUMBER
320	CAIRO	SAWR	37 04N	89 13W	
341	CAIRO	MBO	37 00N	89 10W	93809
357	CAIRO	MBO	37 00N	89 10W	93809
374	CAIRO	MBO	37 00N	89 10W	93809
390	CROSSVILLE	A	38 10N	88 04W	
390	PRAIRIE ROCH	A	38 05N	90 06W	93921
406	CARBONDALE	SAWR	37 47N	89 15W	93810
413	CAHOKIA	SAWR	38 34N	90 10W	
416	CARBONDALE	S	37 44N	89 13W	93810
421	EAST ST LOUI	SAWR	38 34N	90 11W	
428	LAWRENCEVILLE	SAWR	38 45N	87 35W	
433	GEORGE FIELD	AAF	38 46N	87 37W	13809
444	SCOTT	AAF	38 33N	89 51W	13802
444	SCOTT	AFB	38 33N	89 51W	13802
452	MARION	SAWR	37 45N	89 00W	93865
460	MARION	SAWR	37 45N	89 00W	93865
465	MOUNT VERNON	SAWR	38 18N	88 52W	
470	OLNEY	SAWR	38 43N	88 11W	
474	MOUNT VERNON	S	38 20N	88 52W	
480	MOUNT VERNON	COOP	38 20N	88 54W	
520	CENTRAL IA	A	38 31N	89 06W	93825
520	CENTRAL IA	SAWR	38 31N	89 05W	
522	LA SALLE	COOP	41 20N	89 08W	
535	VANDALIA	CAA	38 59N	89 10W	93838
535	VANDALIA	FSS	38 59N	89 10W	93838
536	LA SALLE	MBO	41 20N	89 05W	
541	ALTON	FAR	38 53N	90 03W	
541	ALTON	SAWR	38 53N	90 03W	

ELEV.	NAME	TYPE	LAT.	LONG.	MBAN NUMBER
658	PEORIA	MBAS	40 40N	89 41W	14842
660	PARK RIDGE	AF	41 59N	87 54W	14810
663	QUINCY	A	39 54N	91 22W	93913
664	DANVILLE	SAWR	40 12N	87 36W	
667	PARK RIDGE	AF	41 59N	87 54W	14810
670	PEORIA	MBAS	40 40N	89 41W	14842
675	DECATUR	FSS	39 50N	88 52W	
675	DECATUR	LAWR	39 50N	88 52W	
675	DECATUR	SAWR	39 50N	88 52W	
680	MAUKEGAN	COOP	42 22N	87 52W	
681	NORTHBROOK	A	42 08N	87 51W	
683	PEORIA	MBAS	40 40N	89 41W	14842
683	PEORIA	MSO	40 40N	89 41W	14842
690	MACOMB	SAWR	40 31N	90 30W	
691	CHICAGO OH	MBAS	41 59N	87 54W	94846
692	CHICAGO OH	MBAS	41 59N	87 54W	94846
692	CHICAGO OH	MSO	41 59N	87 54W	94846
710	AURORA	LAWR	41 46N	88 28W	
710	HOOPESTON	COOP	40 28N	87 40W	
713	CHENOA	A	40 44N	88 44W	14818
715	CHICAGO	ASC	41 53N	87 38W	14881
720	MATON	SAWR	39 29N	88 17W	
722	SPRINGFIELD	MBO	39 48N	89 39W	93886
727	MAUKEGAN	A	42 25N	87 52W	14880
732	ROCKFORD	CAA	42 12N	89 06W	94822
732	ROCKFORD	MBAS	42 12N	89 06W	94822
732	ROCKFORD	MSO	42 12N	89 06W	94822
733	MARSEILLES	MSMO	41 22N	88 41W	

EXHIBIT 4 BY LATITUDE

ILLINOIS

LAT.	NAME	TYPE	LONG.	MBAN NUMBER
42 25N	MAUKEGAN	A	87 52W	14880
42 22N	MAUKEGAN	COOP	87 52W	
42 21N	ROCKFORD	CAA	89 03W	14844
42 15N	FREERPORT	SAWR	89 35W	
42 12N	ROCKFORD	CAA	89 06W	94822
42 12N	ROCKFORD	MBAS	89 06W	94822
42 12N	ROCKFORD	MSO	89 06W	94822
42 08N	NORTHBROOK	A	87 51W	
42 05N	GLENVIEW	NAS	87 50W	14855
42 05N	MOUNT CARROL	COOP	89 58W	
42 04N	ELGIN	SAWR	88 17W	
41 59N	CHICAGO OH	MBAS	87 54W	94846
41 59N	CHICAGO OH	MSO	87 54W	94846
41 59N	PARK RIDGE	AF	87 54W	14810
41 55N	W CHICAGO	FAR	88 15W	
41 55N	W CHICAGO	FSS	88 15W	
41 53N	CHICAGO	ASC	87 38W	14881
41 53N	CHICAGO	MBO	87 38W	14881
41 52N	CHICAGO MEIG	LAWR	87 37W	94855
41 52N	CHICAGO MEIG	SAWR	87 37W	94855
41 50N	DIXON	SAWR	89 27W	
41 49N	STERLING	A	89 30W	
41 48N	STERLING	A	89 30W	
41 47N	CHICAGO MID	MBAS	87 45W	14819
41 47N	CHICAGO MID	MSO	87 45W	14819
41 47N	CHICAGO UNIV	AF	87 36W	14802
41 47N	CHICAGO UNIV	MBO	87 36W	14892
41 47N	CHICAGO UNIV	MSMO	87 36W	14892
41 47N	DUNNE CRIB	CG	87 32W	
41 46N	AURORA	LAWR	88 28W	
41 46N	WATERMAN	A	88 45W	94821
41 44N	STERLING RFB	SAWR	89 41W	
41 43N	CALUMET HBR	CG	87 32W	
41 32N	LANSING	SAWR	87 32W	
41 30N	JOLIET	A	88 10W	14834

LAT.	NAME	TYPE	LONG.	MBAN NUMBER
39 50N	SPRINGFIELD	MBAS	89 40W	93822
39 50N	SPRINGFIELD	MSO	89 40W	93822
39 48N	SPRINGFIELD	MBO	89 39W	93886
39 47N	JACKSONVILLE	SAWR	90 14W	
39 45N	SPRINGFIELD	SA	89 41W	93822
39 45N	SPRINGFIELD	MBAS	89 41W	93822
39 29N	MATON	SAWR	88 17W	
39 15N	CHESTERFIELD	A	90 04W	
39 09N	EFFINGHAM	CAA	88 33W	93816
39 09N	EFFINGHAM	MBAS	88 33W	93816
38 59N	VANDALIA	CAA	89 10W	93838
38 59N	VANDALIA	FSS	89 10W	93838
38 53N	ALTON	FAR	90 03W	
38 53N	ALTON	SAWR	90 03W	
38 46N	GEORGE FIELD	AAF	87 37W	13809
38 46N	LAWRENCEVILLE	SAWR	87 36W	
38 43N	OLNEY	SAWR	88 11W	
38 39N	SALEM	MSMO	88 58W	93879
38 34N	CAHOKIA	SAWR	90 10W	
38 34N	EAST ST LOUI	SAWR	90 11W	
38 33N	SCOTT	AAF	89 51W	13802
38 33N	SCOTT	AFB	89 51W	13802
38 31N	CENTRAL IA	A	89 06W	93825
38 31N	CENTRAL IA	SAWR	89 06W	
38 22N	MOUNT VERNON	COOP	88 55W	
38 20N	MOUNT VERNON	COOP	88 54W	
38 20N	MOUNT VERNON	S	88 52W	
38 19N	MOUNT VERNON	SAWR	88 52W	
38 10N	CROSSVILLE	A	88 04W	
38 05N	PRAIRIE ROCH	A	90 06W	93921
37 47N	CARBONDALE	SAWR	89 15W	93810
37 45N	MARION	SAWR	89 00W	93865
37 44N	CARBONDALE	S	89 13W	93810
37 04N	CAIRO	SAWR	89 13W	
37 00N	CAIRO	MBO	89 10W	93809

