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UNITED STATES ATOMIC ENERGY COMMISSION

# ENVIRONMENTAL FACTORS AT PROPOSED SITE OF DRESDEN GENERATING STATION OF COMMONWEALTH EDISON COMPANY

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June 15, 1955

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This report contains an Appendix of Climatological Data for Chicago, Joliet, and Peoria, Illinois by the Weather Bureau.



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Nuclear Power Group
and
Associated Companies
Chicago, Illinois

American Gas and Electric Service Corp.
Bechtel Corporation
Central Illinois Light Company
Commonwealth Edison Company
Illinois Power Company
Kansas City Power & Light Company
Pacific Gas and Electric Company
Union Electric Company of Missouri

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# INTRODUCTION

In compliance with AEC licensing regulations, this report is a compliation of the presently available data pertaining to the proposed reactor power plant site which may be used in evaluating the proposed measures for protecting the public from possible radioactive hazards, both during normal operation and under unusual conditions.

The site proposed for the location of the Commonwealth Edison Company's Atomic Power Plant is a rectangular plot of at least 950 acres just west of the confluence of the Desplaines, Kankakee and Illinois Rivers in Grundy County, Illinois. It is approximately 50 miles southwest of Chicago in a sparsely populated rural agricultural area. The reactor will be located approximately in the center of this 950 acre plot, thus providing a large exclusion area as shown in Fig. 1.

The data presented in this report includes population distribution within 25 miles of the site, location of villages, towns and cities relative to plant site, and predominate activities of the surrounding area. Meteorological data has been obtained from several nearby weather stations which should make possible a sufficiently accurate estimate of prevailing weather conditions at the site.

The site is described with due regards to location, accessibility, and other visually apparent topographical features. In lieu of actual test boring data on the site, estimated sub-surface geological data is included. Likewise, much of the sub-surface hydrological data is estimated from

Fig. 1 — Aerial View-Dresden Site.

available nearby well boring data.

The following data table represents a fairly complete summary of all the factors pertinent to the site and surrounding territory. It is divided in the following general subdivisions:

Plant Site

Distribution of Population

Geology

Seismology

Hydrology

Meteorology

Discussions and analyses of these factors will be found in the body of the report.

Table I

SUMMARY OF SITE DATA

Plant Site

| | |
|---|---|
| Name of Atomic Power Plant | Dresden |
| Location | Grundy County, Illinois-<br>50 miles Southwest of Chicago-<br>14 miles Southwest of Joliet-<br>South side of the Illinois River just West of the confluence of the Kankakee and Desplaines Rivers and South of the Dresden Locks |
| Area of Site | 953 acres owned |
| General Shape of Plot | Rectangular |
| Topography | Generally Flat |
| Site Elevation | 516 feet above datum |
| River Bank Elevation | 510 " " " |
| River Water Level | |
| Max. Flood | 507 " " " |
| Average | 505 " " " |
| Extreme Low | 503 " " " |
| Transportation to Site | Rail<br>River<br>Highway |
| Foundation Conditions<br>Bedrock | Sandstone &<br>Limestone-shallow top soil with outcrops at a few points on the site |
| Drainage<br>Final Deposition | Surface run off to Illinois River |
| Cooling Water Intake & Exit | Illinois River above locks |
| River Temperature Max. | 85°F |
| Min. | 40°F |
| Av. | 65°F |
| River Flow Max. | 100,000 cfs est. flood conditions |
| Min. | 3,000 cfs |
| Av. | |

| | |
|---|---|
| Intake and Discharge Canals | |
| Length | approximately 1/2 mile |
| Direction from Plant | |
| Intake | Easterly |
| Discharge | Northerly |
| Service Water Source | |
| Sanitary | Wells |
| Boiler Feed | Wells or possibly river |

## Distribution of Population

| | |
|---|---|
| Population Density | |
| Within 1½ mile radius | 15 per square mile |
| Between 1½ and 5 mile radii | 35 per square mile |
| Between 5 and 10 mile radii | 78 per square mile |
| Population of Towns, Villages and Cities by distance and direction (See Table IV) | |
| Predominant Activity in Area | |
| Agricultural | Near vicinity |
| Recreational area | 1 mile North(along I & M canal) |
| Defense Installations | 5 miles East(Elwood & Joliet Arsenal) |
| Abandoned strip mine | 3 miles South |
| Conservation area | 2 miles South |

## Geology

| | |
|---|---|
| Relief of Region | Slight-less than 200 feet in Morris Quadrangle |
| Greatest Local Relief | Dresden Heights Bluff directly North of site across river-120 feet |
| Relief on Site | 25 feet |
| Soil | Sandy Loam |
| Stratigraphy | Maquoketa<br>Limestone(upper phase)<br>40 to 65 feet<br>Shale (lower phase)<br>10 to 65 feet<br>Galena-Platteville<br>300 - 350 ft. thick<br>dolomite - upper layer<br>limestone - lower layer<br>St. Peter sandstone<br>300 - 400 ft. thick |

## Seismology

| | | |
|---|---|---|
| Earthquakes | | |
| Frequency | | 12 in 150 years |
| Damage | | Slight - some toppling of chimneys<br>some shaking down of loose plaster |

## Hydrology

| | | |
|---|---|---|
| Illinois River | | |
| Source | | Flow (cfs) |
| Sanitary & Ship Canal Diverted from Lake Michigan | Av. | 1500 |
| Chicago Domestics Pumpage | Av. | 1750 |
| | Av. | 3250 |
| | Max. | 24000 |
| | Min. | 1800 |
| DesPlaines River | Max. | 13500 |
| | Min. | 0 |
| DuPage River | Max. | 11000 |
| | Min. | 10 |
| Kankakee River | Max. | 48000 |
| | Min. | 200 |
| Flow at Dresden | Max. | 100,000* |
| | Min. | 3000 |

*Estimate flood condition

| | |
|---|---|
| Ultimate Destination | Mississippi River |
| Direction of Flow | Southwesterly |
| Average Velocity | 1/2 to 3 miles/hr. |
| Service Water Source | Deep wells |
| Water Bearing Strata | Pennsylvanian sandstone<br>Galena Dolomite sandstone<br>St. Peter sandstone<br>Prairie du Chien formation<br>Ironton-Galeville sandstone |
| Site Drainage | |
| Surface | Small ditch-through center of site to Illinois River just below the Dresden Locks |
| Subsurface | Unknown |

## Meteorology

| | Joliet | Chicago | Peoria |
|---|---|---|---|
| Temperatures | | | |
| Averages | | | |
| Daily Maximum | 59.7 | 59.3 | 61.0 |
| Daily Minimum | 38.0 | 40.8 | 41.0 |
| Extremes | | | |
| Recorded Highest | 102.0 | 105.0 | 113.0 |
| Recorded Lowest | -20.0 | -23.0 | -27.0 |
| Precipitation | | | |
| Mean Total(inches) | 36.26 | 32.72 | 35.18 |
| Maximum Monthly | 9.28 | 12.06 | 12.3 |
| Minimum Monthly | 0.25 | 0.06 | 0.04 |
| Maximum in 24 hours | 5.32 | 6.19 | 5.52 |
| Snow | | | |
| Mean total | 25.0 | 33.9 | 21.5 |
| Maximum monthly | 21.9 | 42.5 | 26.5 |
| Maximum in 24 hours | 8.0 | 14.9 | 18.0 |
| Relative Humidity | | | |
| 12:30 AM | 83 | 77 | 80.0 |
| 6:30 AM | 85 | 78 | 83.0 |
| 12:30 PM | 58 | 61 | 61.0 |
| 6:30 PM | 67 | 67 | 67.0 |
| Mean number of days | | | |
| Sunrise to sunset | | | |
| Clear | 83 | 113 | 142.0 |
| Partly Cloudy | 124 | 120 | 105.0 |
| Cloudy | 157 | 132 | 118.0 |
| Precipitation 0.01 inch or more | 110 | 124 | 113.0 |
| Snow, sleet, hail 1.0 inch or more | 9 | 10 | 7.0 |
| Thunderstorms | 40 | 37 | 50.0 |
| Heavy Fog | 24 | 11 | 12.0 |
| Temperatures | | | |
| 90° and above Max. | 26 | 13 | 30.0 |
| 32° and below Max. | 44 | 45 | 38.0 |
| 32° and below Min. | 143 | 110 | 125.0 |
| 0° and below Min. | 12 | 8 | 8.0 |
| Percent of possible sunshine | | 59 | 61.0 |
| Mean sky cover sunrise to sunset | | 5.5 | 5.9 |

| | Joliet | Chicago | Peoria |
|---|---|---|---|
| Wind | | | |
| Mean hourly speed | 9.7 | 10.7 | 7.7 |
| Prevailing direction | WSW | SSW | S |
| Fastest Mile | | | |
| Speed | | 87 | 75.0 |
| Direction | | NE | NW |

## SITE DESCRIPTION

Location. The proposed site is located in the Morris Quadrangle of Grundy County, Illinois, just west of the confluence of the Desplaines, Kankakee and Illinois Rivers and South of the Dresden Island Lock and Dam. The Illinois River circles around to the North Side of the site and then flows in a Southwesterly direction. A railroad right-of-way comprises the West boundary of the site and a gravel road forms the South boundary.

The site now includes parts of Sec. 25, 26, 27, 34 and 35 of Aux. Sable Township, T. 34 N, R. 8 E, and comprises approximately 950 acres.

Access. The site is about five miles from a major highway and about 3 miles from an improved secondary road. Improvement of the gravel road which passes along the South property line would be required, and an access road would have to be constructed into the site.

The Elgin, Joliet and Eastern Freight Railroad which passes along the West boundary of the site is in daily use. A spur from this railroad could be constructed into the site to facilitate shipments of materials and equipment. Shipment could also be accomodated by river barges providing the necessary docking facilities are constructed.

General Description. The topography is essentially "rolling prairie", gentle slopes, with a maximum elevation difference on the site of approximately 25 feet. Practically all of the site is either in cultivation or grass. Very little

clearing will be required as there are only a few widely scattered large trees and sparse bushes to be found on the site.

The top soil is a very sandy loam which probably will be very muddy during rainy seasons. For the most part, this moisture will eventually drain off or evaporate. However, there are a few marshy areas on the site which may indicate poor subsurface drainage. This may also give an indication of the impervious quality of the limestone bedrock in the area.

It is believed that the top soil is very shallow over the major part of this site. This is evident by the outcropping of the limestone bedrock in several areas, which in most cases are at elevations much higher than the lowest parts of the site.

Water Supply. Circulating water for the main turbine condenser will be taken from the Illinois River. Open intake and discharge canals, approximately 1/2 mile in length, will be utilized. These canals are shown relative to the main power plant building in Fig. 1.

Wells will be provided for potable and sanitary waters. However, tests are currently being conducted with Kankakee River water to determine its mineral content and its suitability for boiler feedwater supply and make-up.

## SURROUNDING ACTIVITIES AND POPULATION

### Surrounding Activities

The activities in the area immediately surrounding the site can best be described by subdividing the area within the first five miles into quadrants. To the North and West the land is used for agricultural purposes. Farm land also extends 3 miles to the South of the site. Beyond the first 3 miles to the South the remainder of the land in this quadrant is an abandoned strip mine area which is approximately 3 miles wide by 9 miles long. The 36,000 acre Joliet Arsenal, an area over 8 miles wide and 12 long, is located East of the site. The boundaries of these areas can be best seen by referring to Figures 3 and 4.

Table II summarizes available data from Will, Grundy and Kendall Counties which comprises the major area in the 25 mile radius surrounding the site.

Industrial. The primary industrial activities in this area are centered in the Joliet area, located 14 miles Northeast of the site. Chemical production and petroleum refining are the most rapidly growing industries in the Joliet area - 19 companies are engaged in these fields.

There are now more than 200 manufacturers and processors in the Joliet area. Central location, convenience to raw materials and markets, abundant rail, highway and waterway transportation give Joliet good growth potential.

TABLE II

Surrounding Activities

| | County | | |
|---|---|---|---|
| | Will | Grundy | Kendall |
| Total population(1950) | 134,336 | 19,217 | 12,115 |
| Population increase(1940-1950) | 17.6% | 4.5% | 9.1% |
| Land area (square miles) | 845 | 432 | 320 |
| Population per square mile | 159 | 45 | 38 |
| Urban population | 90,457 | 6,926 | |
| Rural non-farm population | 31,519 | 7,478 | 7,485 |
| Rural farm population | 12,360 | 4,813 | 4,630 |
| Farm land - % Area | 80 | 91 | 95 |
| | | | |
| Total employed | 50,163 | 7,227 | 4,583 |
| Agriculture | 3,548 | 1,615 | 1,498 |
| Mining | 412 | 352 | 25 |
| Construction | 3,052 | 421 | 301 |
| Manufacturing | 16,769 | 1,828 | 1,108 |
| Transportation, communication and other public utilities | 5,800 | 463 | |
| Wholesale and retail trade | 8,439 | 1,191 | 630 |
| Finance, Insurance | 1,324 | 111 | 56 |
| Business and personal services | 2,412 | 262 | 171 |
| Professional and related services | 3,531 | 448 | 242 |
| Land in farms-total (acres) | 433,000 | 252,000 | 195,000 |
| Cattle and calves of all ages | 38,536 | 18,736 | 22,863 |
| All farms | 2,937 | 1,250 | 1,086 |
| | | | |
| Value of farm products sold in 1949, total in $1000. | 20,649 | 11,347 | 12,507 |
| Poultry and Poultry Products | 1,233 | 458 | 678 |
| Dairy Products | 3,109 | 762 | 678 |
| Livestock | 6,372 | 2,480 | 7,231 |
| Crops | 9,932 | 7,646 | 3,920 |

The Joliet area offers particular advantages for heavy industry due to extensive limestone deposits which provide a natural bedrock foundation for heavy machinery.

Morris, 8 miles West of the site, has a light diversified industry consisting of fire-brick, thermostatic controls, flour, fertilizer, coal, sand and gravel and paper mills. Morris also serves as the largest inland grain port in the world. Millions of bushels of grain are handled at these elevators yearly.

Extensive coal fields exist South of the site. This coal is strip mined with an annual output of one and one-half million tons.

Government. The Joliet Arsenal, located East of the site, consists of the Elwood Ordnance Plant and the Kankakee Ordnance Works. The two units of Joliet Arsenal produced vast quantities of explosives, bombs and shells during the war. At present, the Kankakee unit is on a "stand-by" status, maintained in a state of readiness, if needed. The Elwood unit is active in certain new production, renovation and demilitarization. Together these plants employ approximately 1,200 people.

Although the tract of land utilized for the Joliet Arsenal is immediately adjacent the proposed power plant site, activities are predominately centered in an area approximately 7 miles to the East.

N

Agriculture. Approximately 90% of the land surrounding the site on a 25 mile radius is in farm land. The total value of farm products sold in 1949 on Will, Grundy and Kendall Counties amounted to 44.5 million dollars. This breaks down to 21.5 million for crops, 16.1 million for livestock, 4.5 million for dairy products and 2.4 million for poultry and poultry products. The principal crop is corn, with oats, soybeans and wheat next in importance.

Population

The average population density for the farm land in the 0 - 5 mile zone is estimated at 15/sq mile. (See Table III). There are five villages in this area: Minooka, Channahon, Blodgett, Lorenzo and Sand Ridge. (See Fig. 2). Minooka and Channahon have 369 and 1,000 inhabitants, respectively. The total population in this area is estimated at 2,600.

In the 5 - 10 mile zone, the total population is estimated at 18,500 of which 15,000 consists of known urban residences. The largest town in this area is Morris, the County Seat of Grundy County, which has a population of 6,900 and is located 8 miles West of the site.

The population in the 10 - 15 mile zone is estimated at 62,000 with the bulk contributed by Joliet which is the nearest major city to the site. Joliet is located 14 miles Northeast of the site and has a population of 51,600.

In the 15 - 20 mile and the 20 - 25 mile zones, the populations are estimated at 24,000 and 85,000 respectively. The City of Aurora which has a population of 51,000 and is located 25 miles North of the site comprises the major portion of the population in the 20 - 25 mile zone.

The data presented above has been gathered in the following table for ease of review.

| Annular Zones in Miles | Total Population Estimated in Zone | Major City or Town in Zone | | |
|---|---|---|---|---|
| | | Name | Direction & Distance(mi.) | Population |
| 0 - 5 | 2,600 | Channahon | NE-3½ | 1,000 |
| 5 - 10 | 18,500 | Morris | W-8 | 6,900 |
| 10 - 15 | 62,000 | Joliet | NE-14 | 51,600 |
| 15 - 20 | 24,000 | Lockport | NE-18 | 4,955 |
| 20 - 25 | 85,000 | Aurora | N-25 | 51,000 |

The population distribution by cities, towns and villages within 25 miles has been itemized in Table IV. The location of these centers of population with reference to the site is shown in Figure 2.

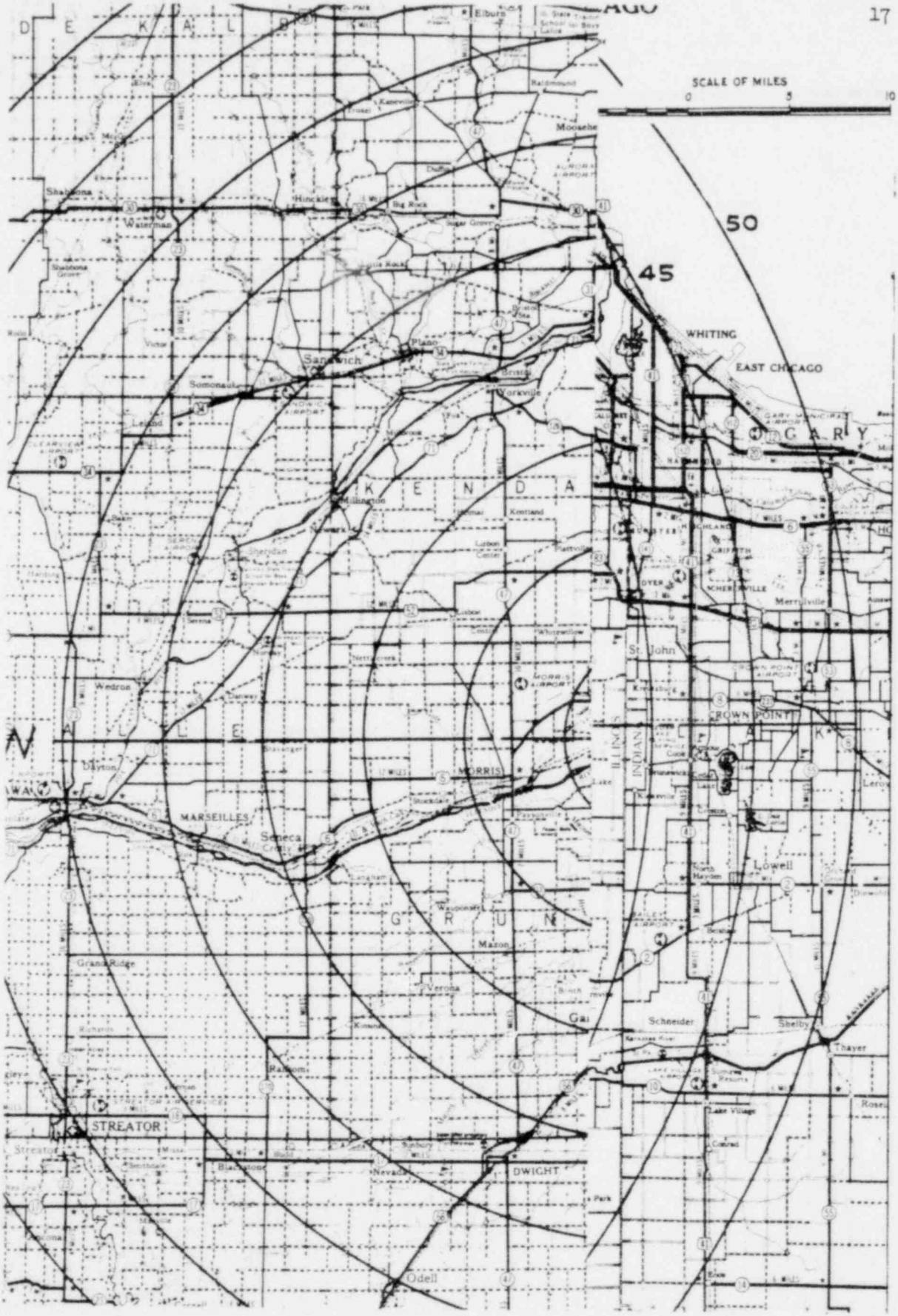


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TABLE IV

POPULATION DISTRIBUTION - SITE AS CENTER
TOWNS, VILLAGES, CITIES, WITHIN 25 MILE RADIUS

| Town | Direction 0 - 5 Miles | Miles | 1950 Population |
|---|---|---|---|
| Minooka | N | 4½ | 369 |
| Channahan | NE | 3½ | 1,000 |
| Blodgett | E | 4 | - |
| Lorenzo | SE | 4 | - |
| Sand Ridge | NW | 3½ | - |
| | | | 1,369 |
| | 5 - 10 Miles | | |
| Binds Bridge | NE | 7 | - |
| Elwood | E | 8 | 42[illegible] |
| Wilmington | SE | 9 | 3,354 |
| Braidwood | S | 9 | 1,485 |
| Diamond | S | 7 | 107 |
| Eileen | S | 7 | 332 |
| Coal City | S | 8 | 2,220 |
| Carbon Hill | S | 7 | 158 |
| Paysonville | SW | 9 | - |
| Morris | W | 8 | 6,9[illegible] |
| Central | NW | 10 | - |
| Whitewillow | NW | 8 | - |
| | | | 15,002 |
| | 10 - 15 [illegible]es | | |
| Caton Farms | N | 12 | - |
| Joliet | NE | 14 | 51,601 |
| Rockdale | NE | 11 | 1,393 |
| Plaines Station | NE | 10 | - |
| Symerton | E | 12 | 119 |
| Ballou | SE | 12 | - |
| Ritchie | SE | 13 | 80 |
| Custer Park | SE | 13 | 110 |
| Gadley | S | 11 | 102 |
| Torino | S | 13 | 9 |
| Braceville | S | 12 | 384 |
| Mazonia | S | 13 | - |
| Coster | S | 14 | - |
| Central City | S | 11 | 35 |
| Gardner | S | 14 | 981 |
| Booth | S | 13 | - |
| Mazon | SW | 13 | 586 |
| Wauponsee | SW | 14 | - |
| Stockdale | W | 11 | - |
| Lisbon | NW | 12 | 183 |
| Lisbon Center | NW | 12 | - |
| Kentland | NW | 13 | - |
| Platville | NW | 11 | - |
| | | | 55,583 |

TABLE IV (continued)

| Town | Direction 15 - 20 Miles | Miles | 1950 Population |
|---|---|---|---|
| Plainfield | N | 16 | 1,764 |
| Statesville (State Pen.) | NE | 15 | - |
| Lockport | NE | 18 | 4,955 |
| New Lenox | NE | 18 | 1,235 |
| Manhattan | W | 15 | 728 |
| Wilton Center | W | 16 | 50 |
| Andres | W | 20 | - |
| Deselm | SE | 18 | - |
| Essex | S | 16 | 284 |
| Clark City | S | 17 | - |
| E. Brooklyn | S | 16 | 65 |
| S. Wilmington | S | 16 | 662 |
| Verona | SW | 17 | 205 |
| Langham | SW | 15 | - |
| Seneca | W | 19 | - |
| Stravanger | W | 18 | - |
| Nettlecreek | W | 16 | - |
| Newark | NW | 18 | 457 |
| Helmar | NW | 15 | 50 |
| Fox | NW | 20 | - |
| Yorkville | NW | 19 | 632 |
| Bristol | NW | 20 | 541 |
| | | | 11,628 |
| | 20 - 25 Miles | | |
| Aurora | N | 25 | 50,576 |
| Bristol Station | N | 22 | 175 |
| Oswego | N | 21 | 1,220 |
| Lemont | NE | 24 | 2,757 |
| Mokena | NE | 22 | 903 |
| Frankfort | E | 23 | 685 |
| Peotone | E | 25 | 1,395 |
| Manteno | SE | 25 | 1,789 |
| Lehigh | SE | 24 | - |
| Bonfield | SE | 21 | 143 |
| Goodrich | SE | 23 | - |
| Union Hill | S | 21 | 138 |
| Buckingham | S | 25 | 140 |
| Reddick | S | 21 | 208 |
| Candiff | S | 24 | - |
| Blair | S | 21 | - |
| Dwight | S | 23 | 2,843 |
| Sunbury | SW | 24 | - |
| Kinsman | SW | 21 | 147 |
| Marseilles | W | 23 | 4,514 |
| Danway | W | 22 | - |
| Norway | W | 21 | - |
| Geneva | W | 25 | - |
| Sheridan | NW | 23 | 476 |

TABLE IV (continued)

| Town | Direction 20 - 25 Miles (continued) | Miles | 1950 Population |
|---|---|---|---|
| Millington | NW | 20 | 270 |
| Sandwich | NW | 25 | 3,027 |
| Millbrook | NW | 20 | - |
| Plano | NW | 23 | 2,154 |
| | | | 73,560 |

## GEOLOGY

The State Geological Survey Bulletin #43 "Geological and Mineral Resources of the Morris Quadrangle" was consulted for topographical and Geological information inasmuch as the proposed site is located within it. The information contained in this bulletin is both general and detailed. It provided the following pertinent facts.

The Morris quadrangle includes the central part of the so-called Morris Basin. To the traveler the basin-like shape is not apparent because of its extreme shallowness, but is evident from the topographic map, Fig. 3 and 4, and is emphasized by the arrangement of stream courses.

The relief of the region as a whole is slight, there being less than 200 feet of difference between the highest and lowest points in the quadrangle. The greatest local relief is found at Dresden Heights, where the Illinois has cut a sharp bank 120 feet high in the glacial deposits of Minooka Ridge.

The proposed site is located directly across the Illinois River from this bluff and lies south of the Dresden Heights Lock and Dam. While no test borings on this site have been made, a study of the surficial and areal Geological map in the S.G.S. Bulletin #43 shows that on al of this site the bedrock is about at the surface with only a shallow covering of sandy loam soil. This is evident by the outcropping limestone found in several areas of the site. The bedrock in this area is the Maquoketa formation of the upper Ordovician Series. This formation comprises an upper limestone phase and a lower shale phase.

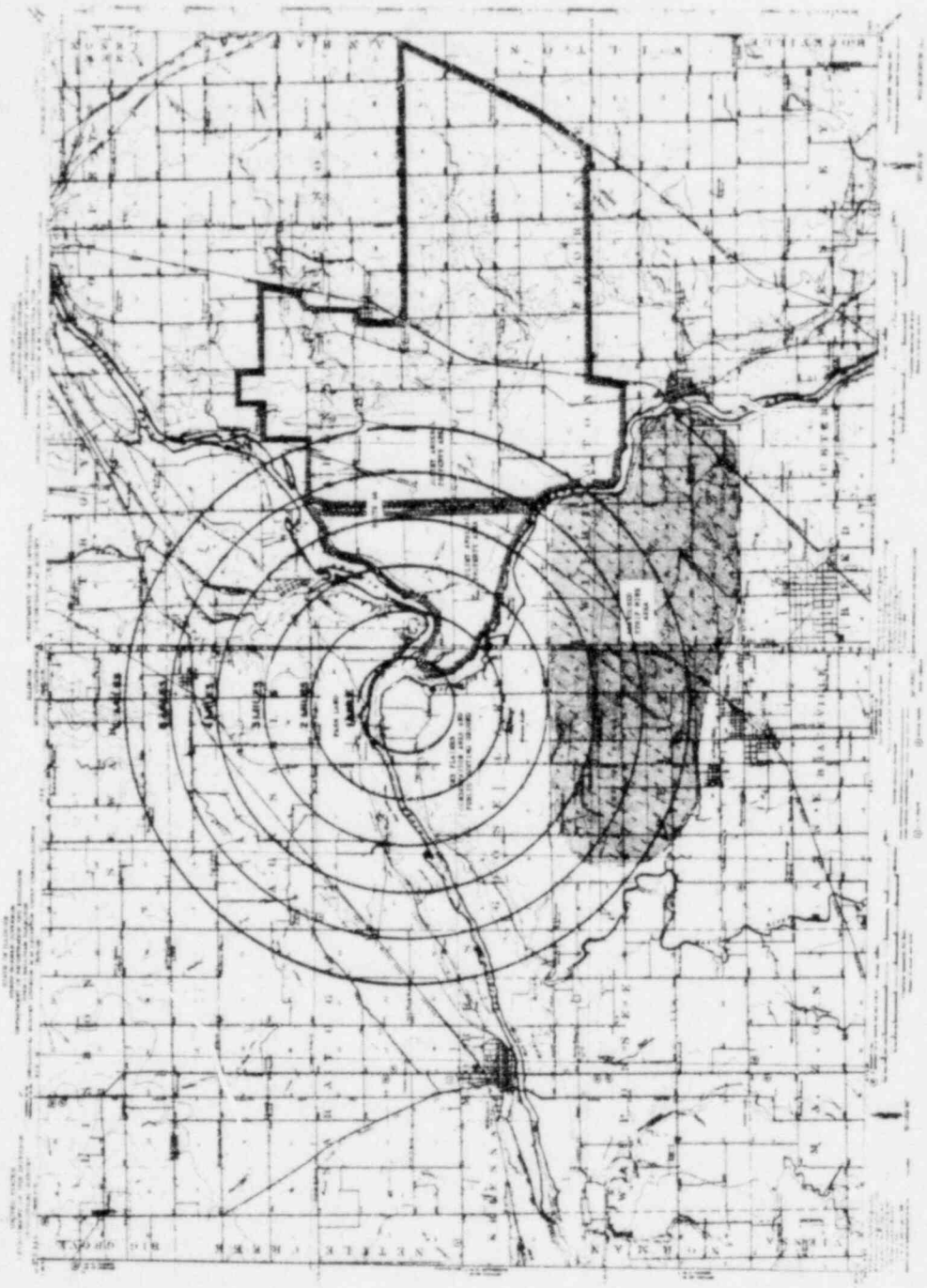


Fig. 3 - U.S.G.S. Map - Morris and Wilmington Quadrangle

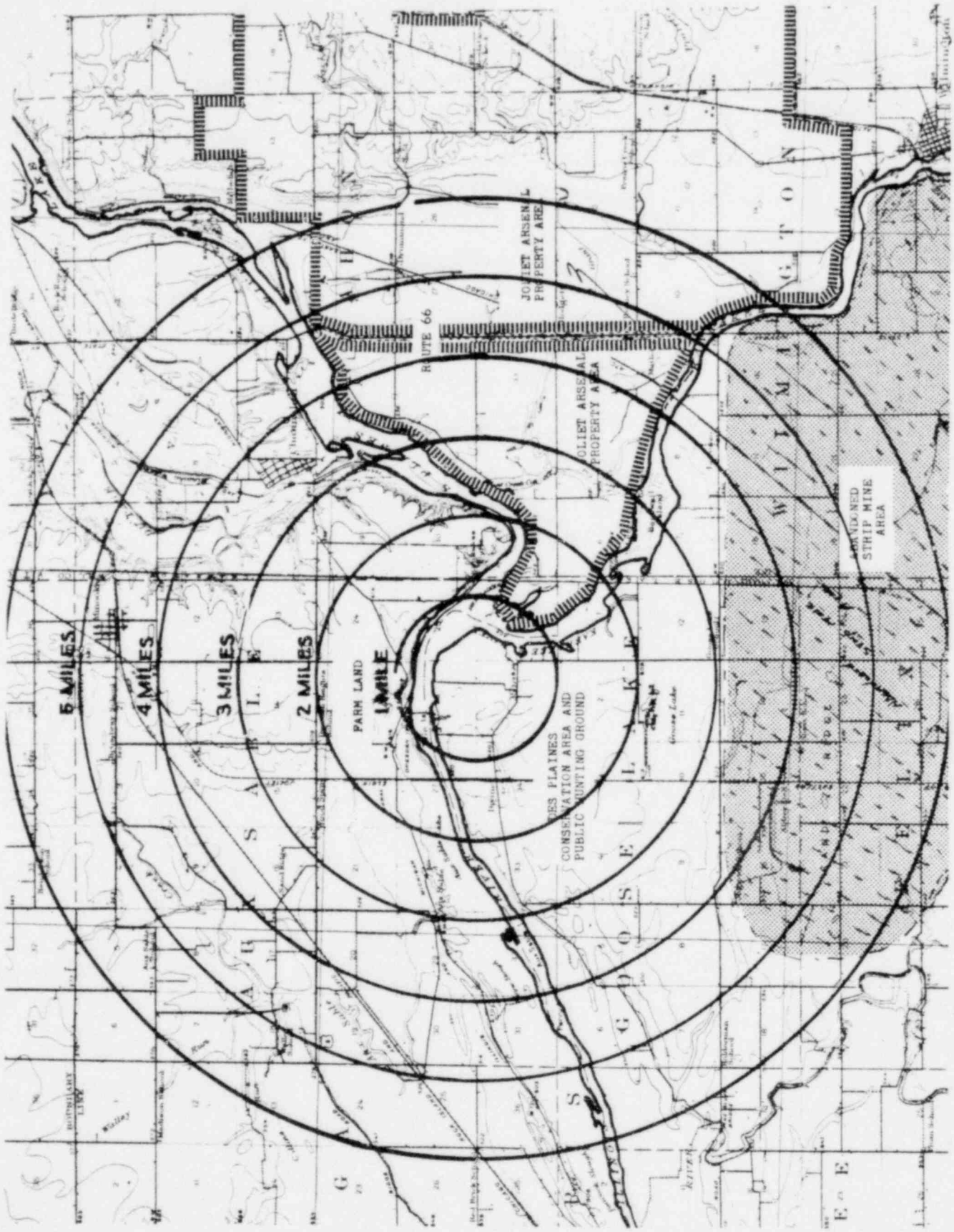



Fig. 4 - U.S.G.S. Map - Five Mile Zone

From well boring data and study of outcropping beds, it is estimated that the limestone phase may vary between 40 feet and 65 feet.

Underlying the limestone is the shale phase of the Maquoketa formation. This may vary from a thin layer to maximum known thickness of 65 feet. Lithologically, this lower member is entirely shale, no interbedded limestone having been recorded from borings. It is usually medium to dark grey, soft, thin-bedded, non-calcereous, and without fossils. Of interest to note is the absence of any younger geological formation on this site with the exception of a narrow strip of the Pottsville formation along the Kankakee River. This formation is a part of the Pennsylvania system and in this outcropping region consists mainly of sandstone, shale, and intermediate type rock, with some bituminous layer but almost no limestone.

Underlying the Maquoketa formation is the Galena-Platteville formation of the Middle Ordovician Series. This formation varies in thickness from 100 feet to 400 feet in the Morris Quadrangle. Well boring data shows this variation to be very erratic - amounting to 100 feet difference within a one square mile area. However, it is estimated that on the site the Galena-Platteville formation is approximately 300 to 350 feet thick. It is comprised of a dolomite upper layer and a limestone lower layer which is thought to be in contact with the St. Peter sandstone formation. In general, this formation has a slight tilt towards the Southeast.

The following logs of well borings in the surrounding area was correlated with the information found in S.G.S. Bulletin #43 to determine the stratigraphy of this site, Fig. 5.

Kankakee Ordnance Works
Well #3
SE ¼; Sec 34, T. 34 N, R 9 E
(approximately 5 miles East of site)

| Formations | Thickness in feet | Depth in feet |
|---|---|---|
| PLEISTOCENE SYSTEM | | |
| Glacial drift | 7 | 7 |
| SILURIAN SYSTEM | | |
| Niagaran-Alexandrian dolomite, water bearing | 108 | 115 |
| ORDOVICIAN SYSTEM | | |
| Maquoketa formation | | |
| Shale | 15 | 130 |
| Limestone and dolomite | 50 | 180 |
| Shale | 77 | 257 |
| Galena-Platteville dolomite | 348 | 605 |
| Glenwood sandstone | 5 | 610 |
| St. Peter formation | | |
| Sandstone, water-bearing | 195 | 805 |
| Shale and chert, caving | 13 | 818 |
| Shakopee dolomite | 42 | 860 |
| New Richmond sandstone | 25 | 885 |
| Oneota dolomite | 179 | 1064 |
| CAMBRIAN SYSTEM | | |
| Jordan dolomite and sandstone | 101 | 1165 |
| Trempealeau dolomite | 135 | 1300 |
| Franconia sandstone and dolomite | 120 | 1420 |
| Galesville sandstone, water-bearing | 155 | 1575 |
| Eau Claire sandstone and dolomite | 18 | 1593 |

Braidwood Well #1
(approximately 9 miles SE of site)

| Formation | Thickness in feet | Depth in feet |
|---|---|---|
| Pleistocene system | | |
| Sand | 10 | 10 |
| Till | 5 | 15 |
| Sand, silty | 5 | 20 |
| Till | 25 | 45 |
| Pennsylvanian system | | |
| Shale, thin limestone, coal and sandstone beds | 100 | 145 |
| Ordovician system | | |
| Maquoketa limestone and shale | 115 | 260 |
| Galena-Platteville limestone and dolomite | 385 | 645 |
| Glenwood and St. Peter formations | | |
| Sandstone, some dolomite | 10 | 655 |
| Sandstone | 195 | 850 |
| Sandstone, some shale and dolomite | 12 | 862 |
| Shakopee dolomite | 83 | 945 |
| New Richmond shale and sandstone | 45 | 990 |
| Oneota dolomite, some sandstone at base | 220 | 1210 |
| Cambrian system | | |
| Trempealeau dolomite | 175 | 1385 |
| Franconia sandstone, some shale and dolomite | 165 | 1550 |
| Galesville formation | | |
| "Sandstone" | 32 | 1582 |
| "Lime" | 4 | 1586 |
| "Sandstone" | 61 | 1647 |

Carbon Hill City Well
(approximately 6 miles South of site)

| Formation | Thickness in feet | Depth in feet |
|---|---|---|
| Pleistocene system | | |
| Glacial drift | 40 | 40 |
| Pennsylvanian - Ordovician systems | | |
| Pennsylvanian - Maquoketa formations | | |
| Shale | 145 | 185 |
| Ordovician system | | |
| Galena-Platteville formations | | |
| Limestone | 379 | 564 |
| St. Peter formation | | |
| Sandstone | 86 | 650 |

Well near Lorenzo, Illinois
Sec 8, T. 33 N, R 9 E
(approximately 4 miles SE of site)

| Formation | Thickness in feet | Depth in feet |
|---|---|---|
| Pennsylvania system | | |
| Edgewood | | |
| Limestone | 29 | 29 |
| Ordovician system | | |
| Maquoketa | | |
| Upper shale | 76 | 105 |
| Limestone | 52 | 157 |
| Lower shale | 61 | 218 |

Morris, Illinois Well #4
(approximately 7 miles West of site)

| Formation | Thickness in feet | Depth in feet |
|---|---|---|
| Pleistocene system | | |
| "Top soil" | 4 | 4 |
| Sand and little gravel, slightly clayey | 26 | 30 |
| Till | 15 | 45 |
| Sand and gravel, clean | 5 | 50 |
| Pennsylvanian system | | |
| Shale, some siltstone | 80 | 130 |
| Sandstone, incoherent | 5 | 135 |
| Ordovician system | | |
| Galena-Platteville dolomite and limestone | 180 | 315 |
| Glenwood dolomite and sandstone | 10 | 325 |
| St. Peter sandstone | 578 | 903 |
| Oneota formation | | |
| Chert | 12 | 915 |
| Sandstone | 18 | 933 |
| Dolomite | 37 | 970 |
| Cambrian system | | |
| Trempealeau dolomite | 150 | 1120 |
| Franconia dolomite, some sandstone | 145 | 1265 |
| Galesville sandstone | 190 | 1455 |
| Eau Claire shale | 46 | 1501 |

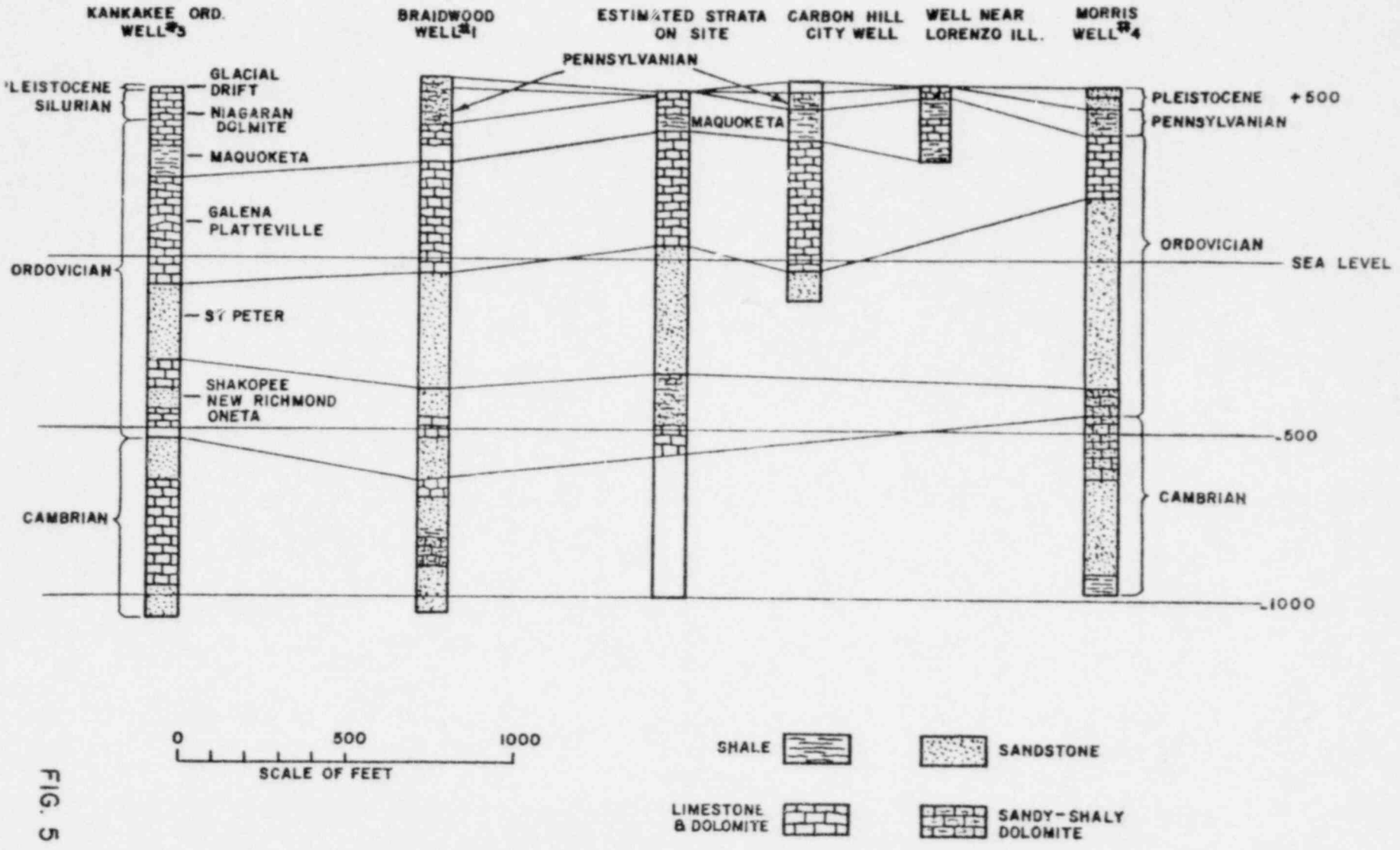



FIG. 5

GRAPHICAL STRATA DATA

## SEISMOLOGY

Seismological or esthquake information is required to provide a basis for plant structure, drainage and sewer system design. Information on past earthquakes as to number and severity in terms of the effects on buildings subjected to it is meager. The best recorded data available can be obtained from Loyola University.

Records of the past century and a half list not more than a dozen earthquakes as having occurred within a radius of 150 miles from Chicago. None of these caused greater damage than that of toppling some house chimneys or shaking down loose plaster. It is expected that no building of sound construction on firm ground will suffer any damage as a result of the infrequent and small earthquakes which may occur anywhere within 150 miles from Chicago.

It is impossible to say that this region will never have a destructive earthquake. However, it's quite unlikely since the frequency and intensity of recorded local earthquakes have been small and since there is nothing in the geological structure of the area surrounding the site that would lead one to suspect that this could be an earthquake zone.

HYDROLOGY

## Hydrology

Sources of Water. The major stream of the Morris quadrangle is the Illinois River which begins within half a mile of the eastern boundary at the confluence of the DesPlaines and Kankakee Rivers. It flows in a southwesterly direction at a velocity which varies from 1/2 to 3 miles per hour. Flow data indicates that at Dresden, for 90% of the time, the average annual flow varies from a maximum of approximately 20,000 cfs to a minimum of 4000 cfs, Fig. 6.

The major sources of water flowing into the Illinois River above the Dresden site is (1) diversion from Lake Michigan, (2) the Des Plaines River, (3) the Du Page River and (4) the Kankakee River.

The diversion from Lake Michigan includes an average flow of 1500 cfs direct diversion plus an average flow of 1700 cfs from Chicago domestic pumpage. This flows through the Sanitary and Ship Canal and discharges into the Des Plaines River at Lockport, Illinois - approximately 20 miles from the Dresden site. The maximum and minimum flows from this source are 24,000 and 1800 cfs respectively.

The flow of the Des Plaines River - exclusive of the Sanitary and Ship Canal-is primarily drainage from rural areas in Lake County and Northern Cook County with some urban drainage from Western Cook County. The maximum flow for the Des Plaines River is 13,500 cfg. In dry weather, its flow negligible.

The Du Page River which drains rural and urban areas in Southern Lake County and Du Page County contributes a maximum flow of 10,000 cfs. and a minimum of 10 cfs.

The Kankakee River, which collects rural drainage from Northern Indiana and Northeastern Illinois south of Cook County, has the greatest potential maximum flow of all the sources. The recorded maximum for

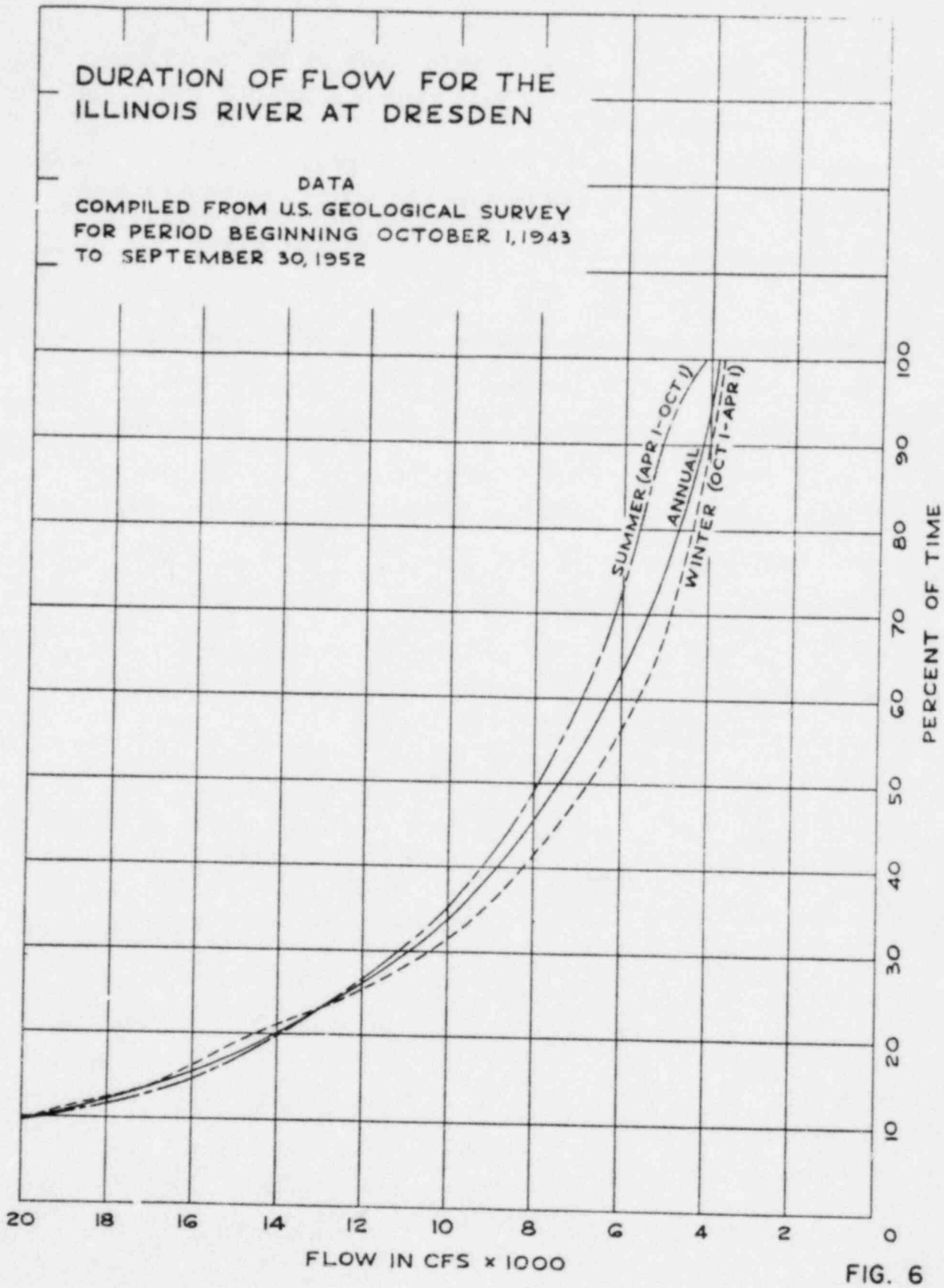

DURATION OF FLOW FOR THE ILLINOIS RIVER AT DRESDEN
DATA
COMPILED FROM U.S. GEOLOGICAL SURVEY FOR PERIOD BEGINNING OCTOBER 1, 1943 TO SEPTEMBER 30, 1952
SUMMER (APR 1-OCT 1)
ANNUAL
WINTER (OCT 1-APR 1)
PERCENT OF TIME
0
10
20
30
40
50
60
70
80
90
100
20
18
16
14
12
10
8
6
4
2
FLOW IN CFS x 1000

FIG. 6

the Kankakee is 48,000 cfs and the minimum is approximately 200 cfs.

Assuming that the maximums (flood conditions) from each of the sources occurred simultaneously, the maximum flow at Dresden would reach approximately 100,000 cfs. Likewise, if all minimums occurred simultaineously, the flow at Dresden would be less than 2000 cfs. However, the minimum flow of 1800 cfs for the S & S Canal is only for very brief periods of time during operations of gates etc., so that the actual minimum is more nearly the average diversion from Lake Michigan or approximately 3000 cfs.

Surface drainage of the site is collected by a small ditch which runs through the center of the site and empties into the Illinois River just below the Dresden Lock as shown in Fig. 1. There are several marshy areas at the upper ends of the ditch. This is characteristic of depressed areas in an impervious sub-surface formation, and might indicate that there is very little surface water percolating to the lower water-bearing strata.

There is no well data available at this time which is directly applicable to this site. However, information obtained from S.G.S. Bulletin #43,provided useful information regarding underground water resources in this area.

Drilled wells draw their water from several formations. Many wells in this area are bottomed in the Pennsylvanian beds. Because of the proximity of the outcrop and the consequently restricted area of intake, this source of supply is less reliable than the lower aquifers.

The next water bearing stratum below the Pennsylvanian rocks is the Galena dolomite. This has no definite water horizon

but is rarely completely penetrated without finding a supply of water. While uniformly hard, this is an excellent source of water. More wells obtain water from this stratum than from any others in this area. However, due to limited supply this source is not considered highly favorable for industrial groundwater in this part of Grundy county.[2.]

Below lies the St. Peter sandstone, a noted aquifer and one that is frequently reached in the northwestern part of the quadrangle. The St. Peter sandstone has limited permeability in this area.[2.]

The next water-bearing stratum is in the Lower Ordovician beds where the sandstones and limestones of the Prairie du Chien formation supplh water that in most cases is abundant but rather highly mineralized.

A still deeper supply is that in the Ironton-Galesville sandstone of the Cambrian age. This water is found to be under considerable pressure but is so highly mineralized as to be suitable for stock only.

The above mentioned aquifers are all available as a source of water on this side. However, the Pennsylvanian beds are limited to a narrow strip on the extreme eastern edge of the site. There are many shallow wells surrounding the site area for which there is no presently available data. It is known that the Maquoketa formation yield negligible amounts of water, however, thin water bearing sand and gravel beds occur over wide areas between Morris and Coal City. These beds are tapped by many domestic wells generally to a depth of about fifty feet. Although these sands are not tapped for major

industrial wells, they have significant potential.[2]

The lower aquifers exist under artesian conditions and have a general southerly slope. They are fed from their absorption areas in southern and central Wisconsin. However, the artesian pressure map, Fig. 7, of June 1949, which was prepared by the Illinois State Water Survey Division indicates that the hydraulic gradient slopes in a general northeasterly direction, due to heavy pumping in the Joliet and Chicago area. The movement of these underground waters, however, is very slow, 100 feet per year, or a mile in 53 years being the generally accepted normal rate.[3]

Arrangements are being made to obtain test drilling data on the site. From this source of information it should be possible to determine (1) the thickness and water absorption properties of the surfuce soils, (2) the topography and water producing properties of the Maquoketa formation which overlay practically the entire site and (3) the hydraulic interconnection, if any, between possible aquifers in the Maquoketa formation, the Galena dolomite and other water bearing strata. Correlation of this data will facilitate evaluations of waste disposal problems and at the same time furnish necessary foundation data.

REFERENCE:

1. "Geology and Mineral Resources of the Morris Quadrangle" State Geological Survey Bulletin #43, Urbana, Ill., 1922

2. Communication, May 12, 1955: John W. Foster, State Geological Survey Division fo C. J. McLean, Commonwealth Edison Co.

3. "Sandstone Water Supplies of the Joliet Area", State Water Survey Division Bulletin #34, Urbana, Ill., 1941

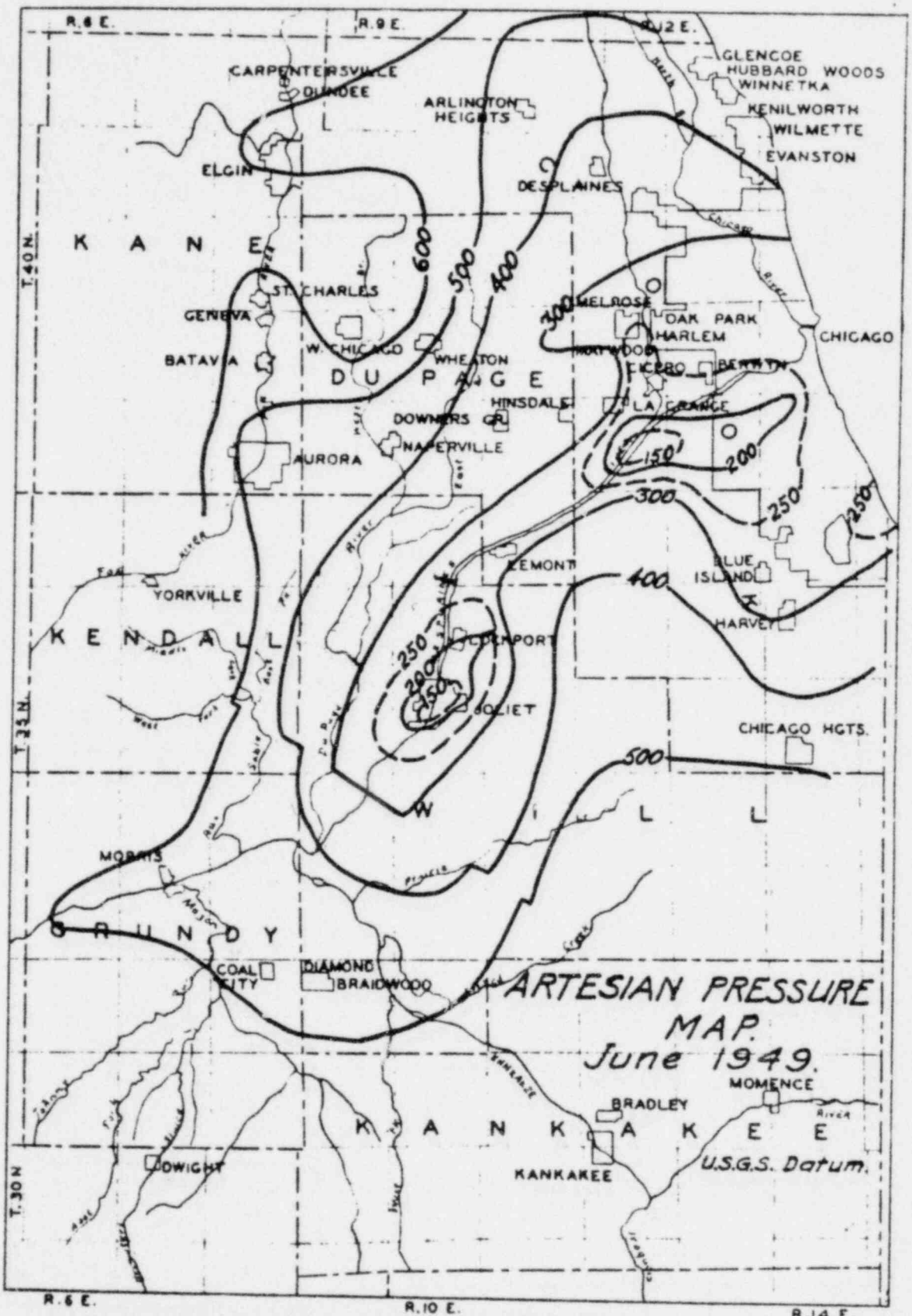



Fig. 7 ILLINOIS STATE WATER SURVEY

Use of River. The principal uses of the Illinois River are for transportation, sewerage disposal and process waters. Fish are found downstream from the site. Such river fish as catfish, carp, perch, bass, etc. are most plentiful.

Commodities moved on the Illinois Waterway include coal, sand, stone, cemant, petroleum products, grain and sulphur. This cargo is carried in open or covered barges pushed by diesel or steam powered tugs.

The first known downstream direct use of this water for drinking purposes is at Alton, Illinois which is approximately 250 miles from the Dresden site and 10 miles downstream from the confluence of the Illinois and Mississippi Rivers. However, due to increased needs and declining water supplies, means have been provided at Peoria, Illinois to admit river water by controlled infiltration into the sand and gravel aquifer from which the city water supply is pumped. The control is such that water is admitted only when the river water temperature is 55-56°F and when bacterial count is within acceptable limits. These facilities are located approximately 110 miles downstream from the site. There is also the probability that river water is the main source of water for many shallow wells along its banks.

No radioactive solutions are disposed of by dilution for ultimate disposal to the river by Argonne. Surface drainage of radioactive material, however, does end up in the river via Saw Mill Creek. The river is monitored at its mouth, both upstream and downstream, in order to control the rate of contamination.

Floods. The elevation of the site is 516 feet above datum. An extreme flood elevation of 507 feet above datum has been attained at the Dresden Dam. Thus, the high water was still nine feet below the site level.

The possibility of flooding on the site is very remote since the estimated 100,000 cfs flow for flood condition is based on the assumption that all the maximum flows as indicated for the various contributing streams will occur simultaneously. Even so, spillway capacity is provided well in excess of estimated flood condition at the Dresden Dam. Another factor which makes flooding at this site very unlikely is the fact that the elevation of the site is well above the vast valley storage area upstream from the dam.

## METEOROLOGY

Meteorological factors such as wind direction, velocity, and duration; temperature distribution; precipitation and local terrain affect the dispersion of radioactive gases and smoke products. Knowledge of these factors aids in the identification of the areas which are most subject to the hazard of radioactive exposure and the determination of the magnitude of that hazard.

The weather data necessary for such an evaluation should be obtained at the actual site. However, since this information is not now available, the weather data published by the Weather Stations at Joliet, Chicago, Peoria, and Argonne National Laboratory has been analyzed and included for reference in the appendix of this report.

The nearest weather station was located at Joliet, Illinois, just fourteen (14) miles northeast of the site. It came into existence in 1937 and closed down in 1952. Peoria weather station is approximately ninety (90) miles southwest of the site. Data from this station is an average of at least 50 years of weather recordings.

Argonne National Laboratory's weather station is approximately thirty (30) miles northeast of the site. Weather data has been accumulated there over the last six (6) years, beginning in July 1949. Suth data as the persistence of wind direction and percent duration at the 150 foot level at Argonne over the period from July 1949 to June 1953 has been reproduced here in Tables V and VI. Surface wind roses for the period of July 1952 to June 1953 at the 150 foot level is presented in Fig. 8.

# TABLE V

PERSISTENCE OF WIND DIRECTION - 150-FOOT LEVEL
JULY 1949 TO JUNE 1953

| Hours of Persistence | Calm | Variable | NE | E | SE | S | SW | W | NW | N | Total Frequency | Total Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 124 | 121 | 408 | 341 | 341 | 405 | 510 | 532 | 456 | 559 | 3797 | 3797 |
| 2 | 23 | 17 | 183 | 166 | 156 | 188 | 202 | 227 | 221 | 225 | 1608 | 3216 |
| 3 | 6 | 9 | 113 | 85 | 104 | 104 | 136 | 145 | 158 | 100 | 960 | 2880 |
| 4 | 3 | 3 | 58 | 70 | 65 | 83 | 102 | 91 | 77 | 73 | 625 | 2500 |
| 5 | | | 35 | 43 | 31 | 38 | 72 | 61 | 60 | 38 | 378 | 1890 |
| 6 | 1 | 1 | 22 | 30 | 30 | 56 | 50 | 60 | 32 | 24 | 306 | 1836 |
| 7 | | | 18 | 24 | 14 | 27 | 39 | 35 | 40 | 35 | 232 | 1624 |
| 8 | | | 17 | 12 | 13 | 30 | 31 | 31 | 21 | 17 | 172 | 1376 |
| 9 | 1 | | 19 | 14 | 17 | 22 | 25 | 29 | 14 | 16 | 157 | 1413 |
| 10 | | | 8 | 18 | 10 | 22 | 32 | 19 | 15 | 6 | 130 | 1300 |
| 11 | | | 4 | 9 | 9 | 17 | 24 | 14 | 17 | 12 | 106 | 1166 |
| 12 | | | 4 | 7 | 4 | 12 | 21 | 16 | 9 | 10 | 83 | 996 |
| 13 | | | 8 | 6 | 1 | 10 | 8 | 12 | 6 | 9 | 60 | 780 |
| 14 | | | 2 | 7 | 2 | 6 | 9 | 16 | 11 | 6 | 59 | 826 |
| 15 | | | 5 | 5 | 1 | 10 | 6 | 11 | 2 | 8 | 48 | 720 |
| 16 | | | 6 | 2 | 1 | 8 | 7 | 6 | 11 | 2 | 43 | 688 |
| 17 | | | 4 | 4 | | 6 | 8 | 6 | 4 | 1 | 33 | 561 |
| 18 | | | 2 | 6 | 1 | 6 | 7 | 3 | 7 | 3 | 35 | 630 |
| 19 | | | 5 | 2 | 1 | 7 | 3 | 7 | 3 | 6 | 34 | 646 |
| 20 | | | 2 | 3 | 1 | 7 | 3 | 2 | 3 | 2 | 23 | 460 |
| 21 | | | 1 | 1 | | 4 | 5 | 3 | 1 | 1 | 16 | 336 |
| 22 | | | | 2 | | 2 | 3 | 1 | | 3 | 11 | 242 |
| 23 | | | 1 | 1 | | | | 2 | 1 | 1 | 8 | 184 |
| 24 | | | | 1 | 1 | 2 | 2 | 4 | 1 | | 11 | 264 |
| 25 | | | | | | 1 | 2 | 3 | 2 | 3 | 11 | 275 |
| 26 | | | | 1 | | 1 | 1 | 4 | 2 | 1 | 10 | 260 |
| 27 | | | | | | 2 | 2 | 2 | | 1 | 7 | 189 |
| 28 | | | | | 1 | 1 | 1 | 2 | 1 | 1 | 7 | 196 |
| 29 | | | | | | 3 | | 1 | 1 | | 5 | 145 |
| 30 | | | | 1 | | 3 | | 2 | | | 6 | 180 |
| 31 | | | | | | | 2 | 1 | | | 3 | 93 |
| 32 | | | | | | 2 | | | | 2 | 4 | 128 |
| 33 | | | | | | 1 | 1 | | 1 | 1 | 4 | 132 |
| 34 | | | 1 | | | | | | | | 1 | 34 |
| 35 | | | | | | 1 | 1 | | | 1 | 3 | 105 |
| 36 | | | | 1 | | | | | 1 | | 2 | 72 |
| 37 | | | | | | 1 | | | | | 1 | 37 |
| 38 | | | | 1 | | | | | 2 | | 3 | 117 |
| 40 | | | | 1 | | | | | 1 | | 2 | 80 |
| 41 | | | | | | | | 1 | 1 | | 2 | 82 |
| 42 | | | 1 | | | | | 1 | | | 2 | 84 |
| 43 | | | | | | | 1 | | | | 1 | 43 |
| 44 | | | | | | | 1 | | | | 1 | 44 |
| 46 | | | | | | 1 | | | | | 1 | 46 |
| 47 | | | | | | 1 | | | | | 1 | 47 |
| 48 | | | | | | 1 | 1 | | 1 | 1 | 4 | 192 |
| 51 | | | | | | | 1 | | 1 | | 2 | 102 |
| 54 | | | | | | | 1 | | | | 1 | 54 |
| 56 | | | | | | | | 1 | | 1 | 1 | 56 |
| 58 | | | | | | | | | | | | |
| Missing | | | | | | | | | | | | 1882 |
| Total | | | | | | | | | | | | 35064 |

TABLE VI - Duration of Persistence

PER CENT OF TIME DURING ONE YEAR THAT WIND FROM A SPECIFIC DIRECTION PERSISTED, DISTRIBUTED ACCORDING TO WIND DIRECTION AND DURATION OF PERSISTENCE

(150-Foot Level, July 1949-June 1950)

| Hours | Calm % | NE % | E % | SE % | S % | SW % | W % | NW % | N % | Variable % | Total % |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 hour or less | .26 | 1.97 | 2.05 | 1.89 | 2.73 | 3.38 | 3.23 | 2.74 | 2.24 | .66 | 21.16 |
| Longer than 1 | .10 | 5.47 | 5.13 | 3.71 | 10.63 | 11.76 | 11.45 | 7.68 | 5.14 | .36 | 61.59 |
| Longer than 2 | .02 | 4.31 | 3.94 | 2.63 | 8.83 | 9.58 | 9.37 | 5.87 | 3.90 | .18 | 48.78 |
| Longer than 3 | .01 | 3.53 | 3.10 | 1.90 | 7.55 | 7.99 | 7.83 | 4.67 | 2.99 | .07 | 39.79 |
| Longer than 4 | 0 | 2.95 | 2.46 | 1.40 | 6.47 | 6.69 | 6.61 | 3.83 | 2.35 | .02 | 32.92 |
| Longer than 5 | | 2.53 | 2.03 | 1.03 | 6.38 | 5.63 | 5.63 | 3.21 | 1.85 | .01 | 27.62 |
| Longer than 6 | | 2.21 | 1.68 | .72 | 5.56 | 4.82 | 4.76 | 2.68 | 1.46 | 0 | 23.22 |
| Longer than 7 | | 1.92 | 1.39 | .50 | 4.86 | 4.14 | 4.10 | 2.22 | 1.12 | | 19.59 |
| Longer than 8 | | 1.67 | 1.16 | .29 | 4.26 | 3.56 | 3.54 | 1.88 | .90 | | 16.60 |
| Longer than 9 | | 1.48 | .98 | .14 | 3.75 | 3.05 | 3.08 | 1.62 | .73 | | 14.16 |
| Longer than 10 | | 1.32 | .82 | .07 | 3.33 | 2.64 | 2.70 | 1.39 | .59 | | 12.20 |
| Longer than 11 | | 1.17 | .67 | .02 | 2.95 | 2.33 | 2.35 | 1.17 | .48 | | 10.49 |
| Longer than 12 | | 1.04 | .54 | 0 | 2.62 | 2.10 | 2.02 | .96 | .37 | | 9.01 |
| Longer than 13 | | .91 | .43 | | 2.32 | 1.89 | 1.75 | .77 | .28 | | 7.71 |
| Longer than 14 | | .81 | .34 | | 2.07 | 1.70 | 1.51 | .61 | .21 | | 6.60 |
| Longer than 15 | | .71 | .25 | | 1.84 | 1.51 | 1.33 | .48 | .16 | | 5.63 |
| Longer than 16 | | .62 | .17 | | 1.66 | 1.33 | 1.18 | .35 | .14 | | 4.80 |
| Longer than 17 | | .53 | .10 | | 1.51 | 1.20 | 1.05 | .26 | .12 | | 4.13 |
| Longer than 18 | | .46 | .04 | | 1.37 | 1.07 | .95 | .20 | .10 | | 3.56 |
| Longer than 19 | | .40 | .02 | | 1.26 | .97 | .86 | .15 | .08 | | 3.10 |
| Longer than 20 | | .37 | .01 | | 1.19 | .87 | .79 | .12 | .06 | | 2.76 |

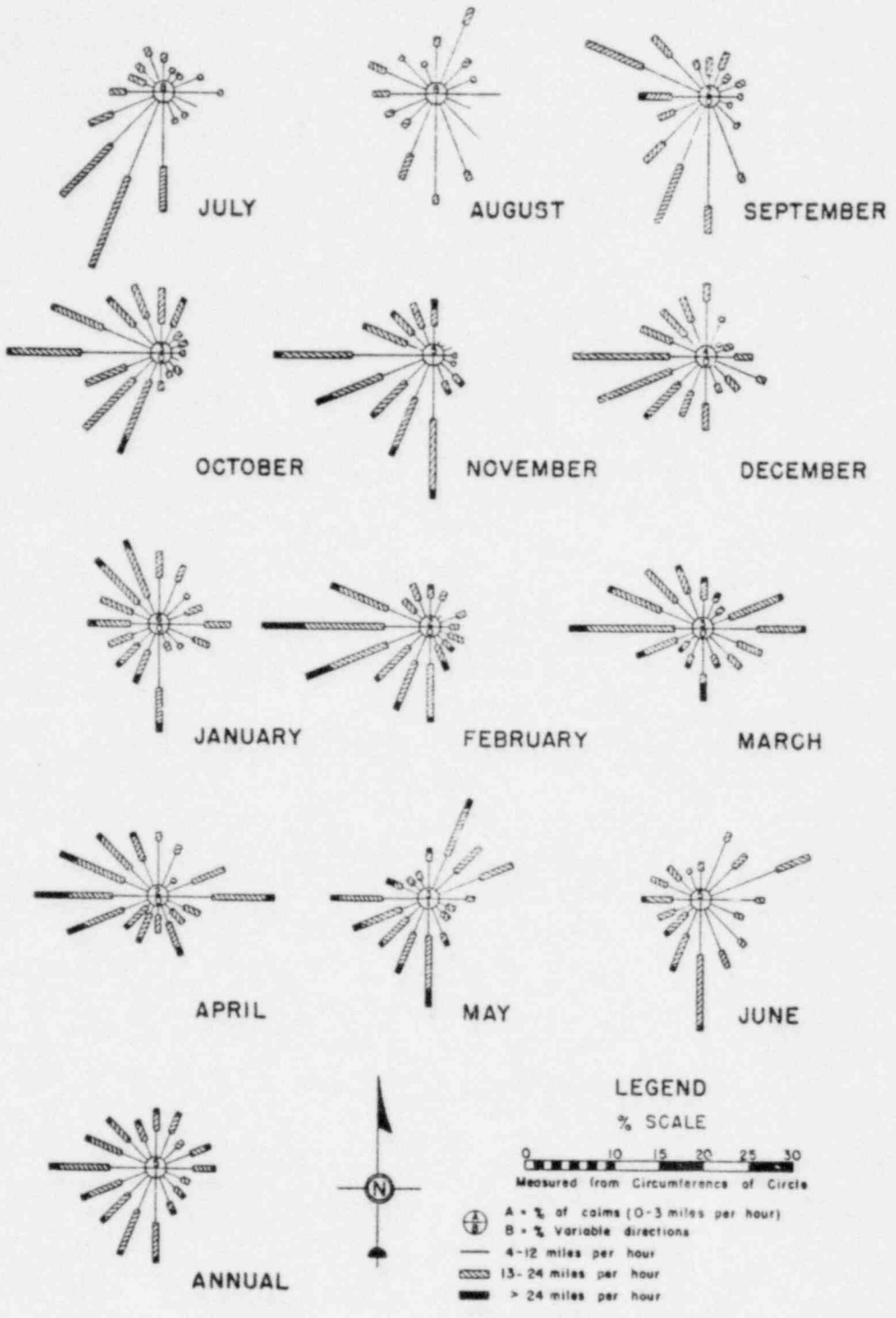



Fig. 8

SURFACE WIND ROSES

JULY 1952 - JUNE 1953

150-ft. LEVEL

The best available long series of wind measurements were made by the U. S. Weather Bureau in Chicago, approximately fifty (50) miles northeast of the site. Surface and upper air wind roses based on ten years of Weather Bureau data gathered at the Chicago Midway Airport is presented in Figs. 9, 10, and 11. This analysis was made in 1941 and tabulated in the Airways Meteorological Atlas.

A surface wind summary, frequency of direction by velocity groups during precipitation periods at the Chicago Airport over a period from January 1934 through December 1941 was made by Col. B. G.Holzman, USAF. These data are tabulated in Table VII.

A summary of meteorological data from the Chicago, Joliet and Peoria Weather Stations is presented in Table I. This summary gives the best averages available over a long period of time and may be used for comparative purposes. The average annual wind velocity at these three stations was found to vary from approximately 8 to 11 miles per hour from a south to southwesterly direction. The average annual maximum temperature was 59 to 61 degrees and the average annual minimum temperature was 38 to 41 degrees. The average annual precipitation was 33 to 36 inches, however, the average snowfall varied from 21 to 34 inches at these three stations.

Other data pertaining to humidity, fog, thunderstorms, etc., are also tabulated in this summary.

A comparison of data presented in this summary indicates that the variation in weather conditions at these three stations is relatively small. From this it can be expected that similar weather conditions will prevail at the proposed site.

# SURFACE WIND ROSES

CHICAGO MIDWAY AIRPORT, CHICAGO, ILLINOIS

BASED ON 65,133 OBSERVATIONS COPIED FROM AIRWAY METEOROLOGICAL ATLAS FOR THE UNITED STATES
U. S. WEATHER BUREAU

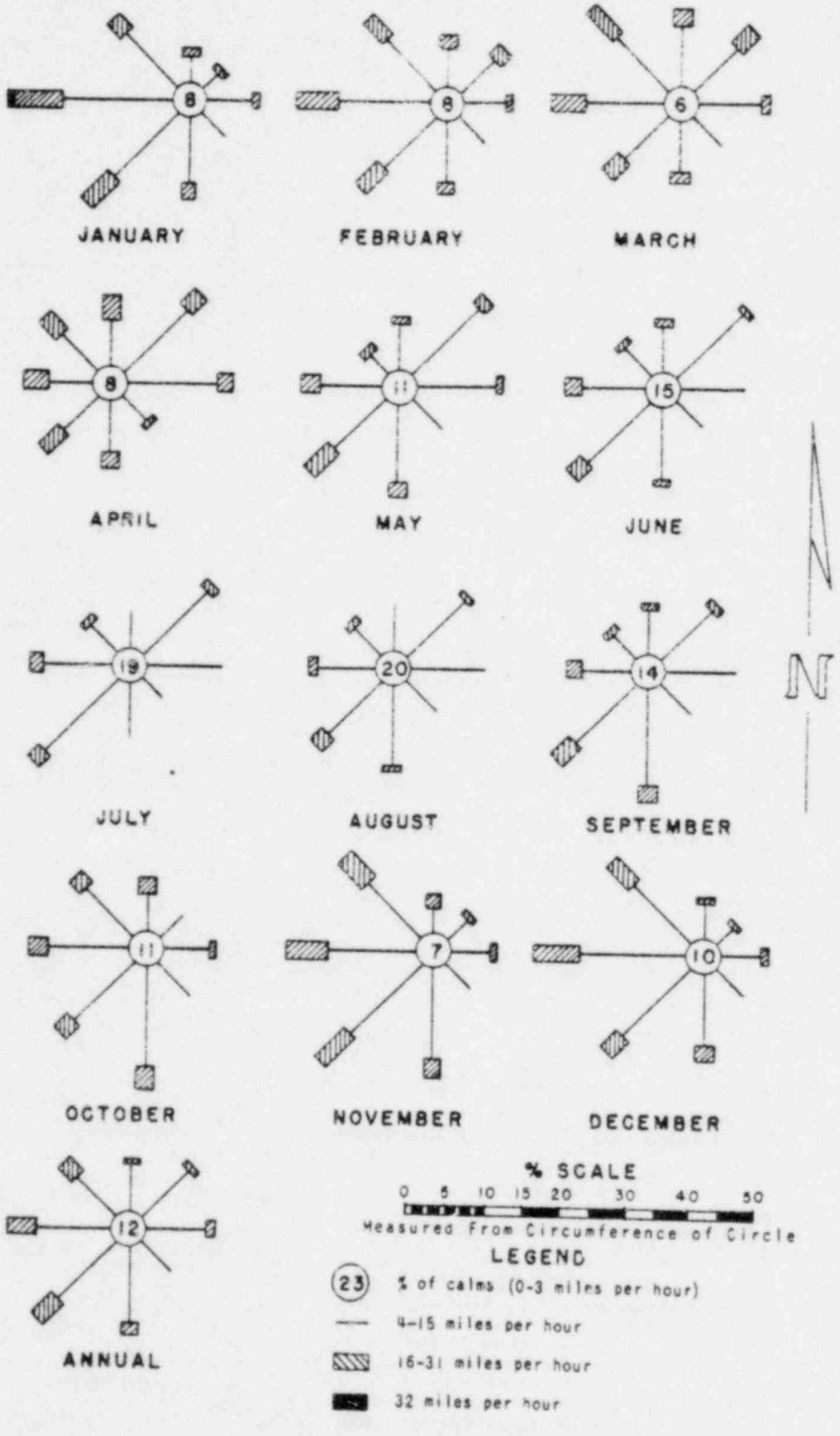
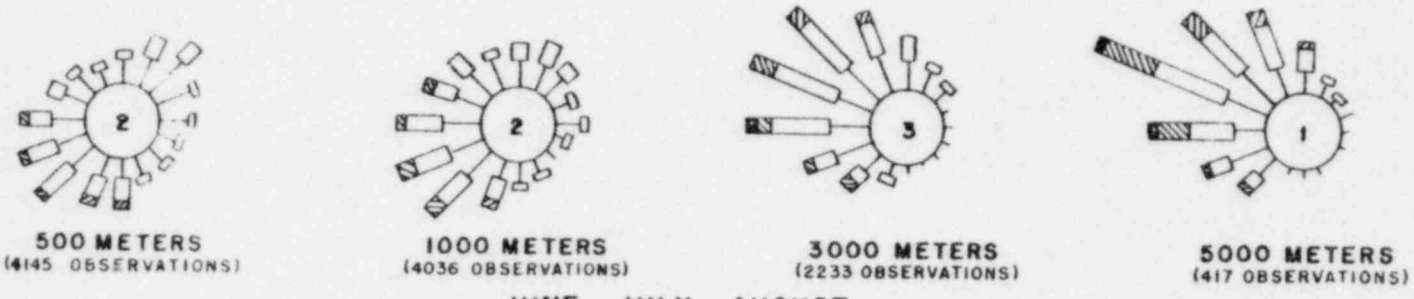
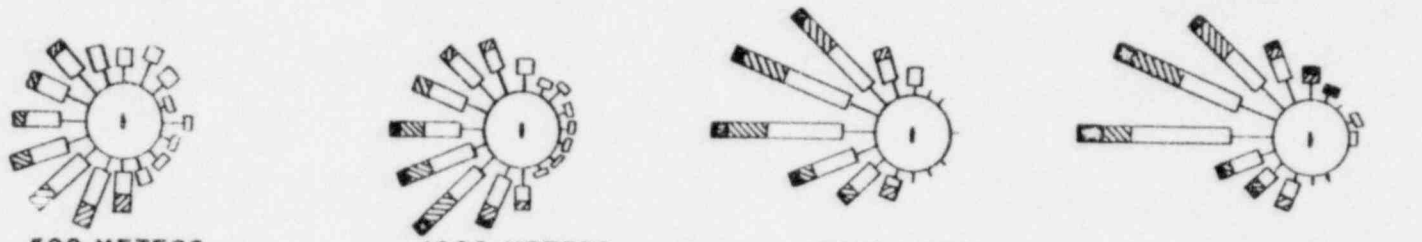



Fig. 9




500 METERS (4145 OBSERVATIONS)
1000 METERS (4036 OBSERVATIONS)
3000 METERS (2233 OBSERVATIONS)
5000 METERS (417 OBSERVATIONS)

JUNE - JULY - AUGUST




500 METERS (3985 OBSERVATIONS)
1000 METERS (3620 OBSERVATIONS)
3000 METERS (1309 OBSERVATIONS)
5000 METERS (205 OBSERVATIONS)

SEPTEMBER - OCTOBER - NOVEMBER

Fig. 10

**LEGEND**

(23) % of calms (0-1 m.p.s.)
2-7 meters per second
8-14 meters per second
15-21 meters per second
22 meters per second & over

Indicated heights are above sea level.

N

**% SCALE**

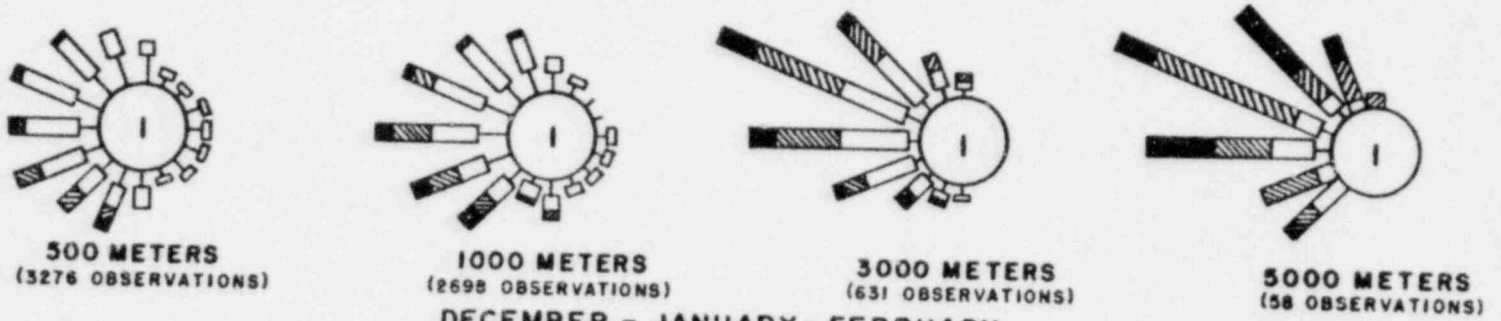
0 5 10 15 20 30 40 50

Measured From Circumference of Circle

## UPPER AIR WIND ROSES

CHICAGO MIDWAY AIRPORT, CHICAGO, ILLINOIS

NOTE: THESE DATA WERE TAKEN FROM THE AIRWAY METEORLOGICAL ATLAS FOR THE UNITED STATES U.S. WEATHER BUREAU



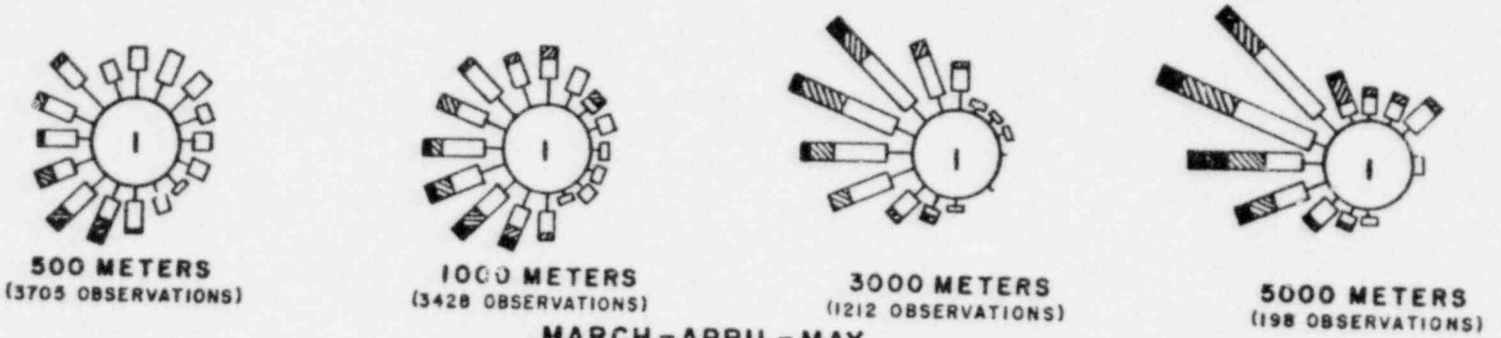




Fig. 11

LEGEND

(23) % of calms (0-1 m.p.s.)

2-7 meters per second

8-14 meters per second

15-21 meters per second

22 meters per second & over

Indicated heights are above sea level.

N

% SCALE

0 5 10 15 20 30 40 50

Measured From Circumference of Circle

## UPPER AIR WIND ROSES

CHICAGO MIDWAY AIRPORT, CHICAGO, ILLINOIS

NOTE: THESE DATA WERE TAKEN FROM THE AIRWAY METEORLOGICAL ATLAS FOR THE UNITED STATES U.S. WEATHER BUREAU

SURFACE WIND SUMMARY - FREQUENCY OF DIRECTION
BY VELOCITY GROUPS DURING PRECIPITATION PERIODS
CHICAGO AIRPORT, JANUARY 1934 - DECEMBER 1941

(COL. BENJAMIN G. HOLZMAN, USAF)

ANNUAL

| DIR/VEL | CALM | 1-3 | 4-12 | 13-24 | 25-31 | 32-46 | 47 & OVER | TOTAL OBS. | 4 MPH & OVER % | TOTAL OBS. | ALL OBS. % |
|---|---|---|---|---|---|---|---|---|---|---|---|
| N | - | 29 | 400 | 446 | 36 | 4 | - | 885 | 10.7 | 913 | 11.1 |
| NE | - | 40 | 588 | 374 | 12 | 3 | - | 978 | 11.8 | 1018 | 12.4 |
| E | - | 67 | 691 | 310 | 2 | - | - | 1002 | 12.1 | 1070 | 13.0 |
| SE | - | 33 | 607 | 182 | 2 | - | - | 792 | 9.6 | 825 | 10.0 |
| S | - | 57 | 734 | 420 | 15 | 2 | - | 1170 | 14.1 | 1227 | 14.8 |
| SW | - | 35 | 570 | 388 | 26 | 10 | - | 995 | 12.0 | 1030 | 12.5 |
| W | - | 32 | 481 | 502 | 66 | 18 | - | 1066 | 12.9 | 1098 | 13.3 |
| NW | - | 24 | 461 | 489 | 34 | 7 | 1 | 993 | 12.0 | 1017 | 12.3 |
| TOTAL | 59 | 317 | 4532 | 3111 | 193 | 44 | 1 | 7881 | - | 8198 | - |
| PER CENT | .7 | 3.8 | 54.9 | 37.7 | 2.3 | .5 | - | 95.2 | - | - | - |

JANUARY

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| N | - | 5 | 45 | 34 | 4 | 1 | - | 83 | 6.6 | 87 | 7.0 |
| NE | - | 10 | 84 | 32 | 4 | 3 | - | 124 | 9.9 | 134 | 10.7 |
| E | - | 20 | 132 | 43 | - | - | - | 175 | 13.9 | 196 | 15.6 |
| SE | - | 7 | 93 | 35 | - | - | - | 128 | 10.1 | 134 | 10.7 |
| S | - | 5 | 130 | 53 | 1 | 1 | - | 184 | 14.7 | 190 | 15.1 |
| SW | - | - | 92 | 66 | 2 | 3 | - | 162 | 12.9 | 162 | 12.9 |
| W | - | - | 85 | 100 | 19 | 5 | - | 211 | 16.8 | 211 | 16.8 |
| NW | - | 1 | 78 | 49 | 7 | 3 | - | 137 | 10.9 | 138 | 10.9 |
| TOTAL | - | 48 | 739 | 412 | 37 | 16 | - | 1204 | - | 1252 | - |
| PER CENT | - | 3.8 | 32.8 | 32.8 | 2.9 | 1.3 | - | 95.8 | - | - | - |

FEBRUARY

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| N | - | 1 | 55 | 77 | 3 | - | - | 134 | 11.5 | 135 | 11.6 |
| NE | - | 7 | 91 | 90 | - | - | - | 182 | 15.5 | 189 | 16.1 |
| E | - | 8 | 95 | 64 | - | - | - | 159 | 13.5 | 167 | 14.2 |
| SE | - | 3 | 83 | 28 | - | - | - | 106 | 6.3 | 113 | 9.7 |
| S | - | 9 | 78 | 45 | 2 | - | - | 119 | 10.6 | 134 | 11.3 |
| SW | - | 5 | 37 | 43 | 4 | - | - | 85 | 7.1 | 89 | 7.6 |
| W | - | 3 | 40 | 63 | 14 | 8 | - | 123 | 10.5 | 127 | 10.8 |
| NW | - | 2 | 94 | 113 | 5 | 1 | - | 215 | 18.3 | 217 | 18.3 |
| TOTAL | 3 | 38 | 573 | 523 | 28 | 9 | - | 1133 | - | 1171 | - |
| PER CENT | .3 | 3.2 | 48.8 | 44.5 | 2.4 | .8 | - | 96.5 | - | - | - |

MARCH

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| N | - | 1 | 48 | 75 | 4 | - | - | 126 | 15.8 | 128 | 16.0 |
| NE | - | - | 68 | 66 | 6 | - | - | 145 | 17.5 | 140 | 17.5 |
| E | - | 5 | 70 | 57 | 2 | - | - | 130 | 16.1 | 135 | 16.8 |
| SE | - | 2 | 24 | 20 | - | - | - | 44 | 5.5 | 46 | 5.7 |
| S | - | 1 | 43 | 34 | 2 | - | - | 78 | 9.6 | 79 | 9.9 |
| SW | - | 3 | 51 | 37 | - | - | - | 89 | 11.0 | 90 | 11.3 |
| W | - | - | 34 | 47 | 9 | - | - | 80 | 11.2 | 82 | 11.5 |
| NW | - | 1 | 36 | 46 | 4 | - | - | 86 | 10.4 | 86 | 10.7 |
| TOTAL | 5 | 13 | 374 | 382 | 27 | - | - | 778 | - | 796 | - |
| PER CENT | .6 | 1.6 | 46.7 | 47.7 | 3.4 | - | - | 97.1 | - | - | - |

TABLE VII

| DIR/VEL | CALM | 1-3 | 4-12 | 13-24 | 25-31 | 32-46 | 47 & OVER | TOTAL OBS. | 4 MPH & OVER % | TOTAL OBS. | ALL OBS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **APRIL** | | | | | | | | | | | |
| N | - | 3 | 27 | 61 | 7 | 1 | - | 96 | 13.5 | 99 | 14.0 |
| NE | - | 2 | 61 | 80 | 1 | - | - | 141 | 19.9 | 143 | 20.1 |
| E | - | 2 | 67 | 63 | - | - | - | 131 | 18.5 | 133 | 18.8 |
| SE | - | 2 | 43 | 20 | - | - | - | 63 | 8.8 | 65 | 9.1 |
| S | - | 4 | 47 | 24 | 3 | - | - | 74 | 10.5 | 78 | 11.1 |
| SW | - | 4 | 37 | 29 | 1 | - | - | 70 | 9.8 | 74 | 10.3 |
| W | - | 1 | 23 | 24 | 3 | 2 | - | 52 | 7.4 | 53 | 7.5 |
| NW | - | 2 | 10 | 42 | 4 | 1 | - | 57 | 8.1 | 59 | 8.3 |
| TOTAL | 5 | 20 | 318 | 343 | 19 | 4 | - | 784 | - | 704 | - |
| PER CENT | .7 | 2.8 | 44.9 | 48.4 | 2.7 | .6 | | | - | | - |
| **MAY** | | | | | | | | | | | |
| N | - | 2 | 35 | 33 | 2 | - | - | 70 | 12.7 | 72 | 13.1 |
| NE | - | 3 | 58 | 18 | - | - | - | 75 | 13.6 | 78 | 14.1 |
| E | - | 9 | 38 | 14 | - | - | - | 63 | 11.3 | 72 | 12.9 |
| SE | - | 5 | 41 | 11 | - | - | - | 52 | 9.3 | 56 | 10.2 |
| S | - | 6 | 36 | 24 | - | - | - | 66 | 11.9 | 72 | 13.0 |
| SW | - | 4 | 29 | 23 | 1 | - | - | 53 | 9.7 | 58 | 10.4 |
| W | - | 6 | 30 | 47 | 1 | - | - | 78 | 14.0 | 82 | 14.8 |
| NW | - | 2 | 24 | 32 | - | - | - | 56 | 10.1 | 58 | 10.5 |
| TOTAL | 6 | 35 | 297 | 212 | 4 | - | - | 513 | - | 548 | - |
| PER CENT | 1.1 | 6.3 | 53.6 | 38.3 | .7 | - | - | 92.6 | - | - | 100.0 |
| **JUNE** | | | | | | | | | | | |
| N | - | 1 | 35 | 17 | - | 1 | - | 52 | 10.9 | 53 | 11.1 |
| NE | - | 3 | 64 | 15 | - | - | - | 80 | 16.6 | 83 | 17.3 |
| E | - | 3 | 68 | 8 | - | - | - | 76 | 15.8 | 79 | 16.4 |
| SE | - | 5 | 24 | 3 | - | - | - | 27 | 5.7 | 32 | 6.7 |
| S | - | 5 | 46 | 16 | - | - | - | 62 | 12.9 | 67 | 14.0 |
| SW | - | 2 | 50 | 24 | - | - | - | 73 | 15.2 | 75 | 15.6 |
| W | - | 3 | 23 | 29 | 1 | 1 | - | 54 | 11.3 | 57 | 11.8 |
| NW | - | 2 | 18 | 8 | 1 | - | - | 28 | 5.7 | 30 | 6.2 |
| TOTAL | 5 | 24 | 328 | 120 | 2 | 2 | - | 452 | - | 476 | - |
| PER CENT | 1.0 | 5.0 | 68.2 | 24.9 | .4 | .4 | - | 94.1 | - | - | - |
| **JULY** | | | | | | | | | | | |
| N | - | 2 | 19 | 7 | - | - | - | 26 | 12.4 | 28 | 13.4 |
| NE | - | 3 | 19 | 2 | - | - | - | 21 | 10.4 | 23 | 11.5 |
| E | - | - | 15 | - | - | - | - | 15 | 7.6 | 16 | 7.8 |
| SE | - | 2 | 16 | - | - | - | - | 16 | 7.9 | 18 | 8.7 |
| S | - | 1 | 19 | 3 | - | - | - | 22 | 10.6 | 23 | 11.3 |
| SW | - | 2 | 30 | 6 | 2 | - | - | 37 | 18.1 | 39 | 19.1 |
| W | - | 4 | 21 | 6 | - | - | - | 28 | 14.0 | 32 | 16.0 |
| NW | - | - | 13 | 9 | - | - | 1 | 23 | 11.3 | 23 | 11.3 |
| TOTAL | 2 | 14 | 152 | 33 | 2 | - | 1 | 188 | - | [illegible] | - |
| PER CENT | 1.0 | 6.9 | 74.5 | 16.2 | 1.0 | - | .5 | 92.3 | - | - | - |

TABLE VII (continued)

| DIR/VEL | CALM | 1-3 | 4-12 | 13-24 | 25-31 | 32-46 | 47 & OVER | TOTAL OBS. | 4 MPH & OVER % | TOTAL OBS. | ALL OBS. % |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **AUGUST** | | | | | | | | | | | |
| N | - | 3 | 27 | 9 | 2 | - | - | 39 | 11.4 | 41 | 12.3 |
| NE | - | 4 | 26 | 7 | - | - | - | 33 | 9.8 | 37 | 10.9 |
| E | - | 4 | 32 | 5 | - | - | - | 37 | 11.0 | 42 | 12.4 |
| SE | - | 2 | 48 | 3 | - | - | - | 51 | 15.2 | 53 | 15.6 |
| S | - | 6 | 38 | 5 | - | - | - | 43 | 12.7 | 49 | 14.5 |
| SW | - | - | 29 | 15 | - | - | - | 44 | 13.2 | 44 | 13.2 |
| W | - | 2 | 18 | 3 | 1 | - | - | 24 | 7.0 | 26 | 7.5 |
| NW | - | 5 | 21 | 10 | 1 | 1 | - | 33 | 9.8 | 38 | 11.2 |
| TOTAL | 6 | 26 | 239 | 60 | 4 | 1 | - | 304 | - | 330 | - |
| PER CENT | 2.4 | 7.7 | 70.7 | 17.8 | 1.2 | .3 | - | 90.1 | - | - | - |
| **SEPTEMBER** | | | | | | | | | | | |
| N | - | 5 | 22 | 40 | 2 | - | - | 66 | 14.8 | 71 | 15.9 |
| NE | - | 3 | 37 | 11 | - | - | - | 47 | 10.6 | 50 | 11.1 |
| E | - | 5 | 59 | 1 | - | - | - | 60 | 13.5 | 65 | 14.6 |
| SE | - | 4 | 40 | 3 | - | - | - | 44 | 9.8 | 48 | 11.0 |
| S | - | 3 | 53 | 23 | - | - | - | 75 | 16.9 | 78 | 17.5 |
| SW | - | 1 | 38 | 19 | - | - | - | 57 | 12.7 | 58 | 13.0 |
| W | - | 4 | 17 | 18 | 1 | - | - | 37 | 8.2 | 41 | 9.1 |
| NW | - | 2 | 15 | 9 | 2 | 1 | - | 25 | 5.8 | 27 | 6.2 |
| TOTAL | 7 | 27 | 281 | 124 | 5 | 1 | - | 411 | - | 438 | - |
| PER CENT | 1.6 | 6.1 | 63.1 | 27.9 | 1.1 | .2 | - | 92.3 | - | - | - |
| **OCTOBER** | | | | | | | | | | | |
| N | - | 1 | 24 | 22 | 5 | - | - | 46 | 9.9 | 48 | 10.1 |
| NE | - | 2 | 11 | 7 | - | - | - | 19 | 4.1 | 21 | 4.6 |
| E | - | 4 | 17 | 14 | - | - | - | 31 | 6.6 | 35 | 7.4 |
| SE | - | 1 | 42 | 7 | - | - | - | 50 | 10.7 | 51 | 11.0 |
| S | - | 1 | 61 | 59 | - | - | - | 121 | 25.8 | 121 | 25.9 |
| SW | - | 2 | 51 | 27 | 1 | 1 | - | 79 | 17.1 | 82 | 17.7 |
| W | - | 2 | 34 | 16 | - | - | - | 50 | 10.7 | 52 | 11.1 |
| NW | - | 1 | 35 | 16 | - | - | - | 52 | 11.1 | 52 | 11.3 |
| TOTAL | 4 | 14 | 271 | 170 | 6 | 1 | - | 448 | - | 462 | - |
| PER CENT | .9 | 3.0 | 58.2 | 36.5 | 1.3 | .2 | - | 96.3 | - | - | - |
| **NOVEMBER** | | | | | | | | | | | |
| N | - | 3 | 33 | 28 | 3 | - | - | 65 | 8.2 | 68 | 8.6 |
| NE | - | 4 | 41 | 42 | - | - | - | 82 | 10.4 | 86 | 11.0 |
| E | - | 3 | 34 | 17 | - | - | - | 51 | 6.4 | 54 | 6.8 |
| SE | - | 1 | 40 | 27 | 2 | - | - | 69 | 8.7 | 69 | 8.8 |
| S | - | 1 | 55 | 73 | 7 | 1 | - | 136 | 17.2 | 138 | 17.4 |
| SW | - | 6 | 45 | 40 | 11 | 6 | - | 102 | 13.0 | 108 | 13.7 |
| W | - | 4 | 49 | 77 | 5 | 1 | - | 133 | 16.8 | 137 | 17.4 |
| NW | - | 4 | 51 | 69 | 4 | - | - | 123 | 15.6 | 127 | 16.2 |
| TOTAL | 2 | 26 | 348 | 373 | 32 | 8 | - | 761 | - | 787 | - |
| PER CENT | .3 | 3.3 | 44.1 | 47.3 | 4.1 | 1.0 | - | 96.3 | - | - | - |

TABLE VII (continued)

| DIR/VEL | CALM | 1-3 | 4-12 | 13-24 | 25-31 | 32-46 | 47 & OVER | TOTAL OBS. | 4 MPH & OVER % | TOTAL OBS. | ALL OBS. % |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | DECEMBER | | | | | | |
| N | - | 1 | 34 | 43 | 3 | - | - | 81 | 7.7 | 80 | 7.8 |
| NE | - | - | 29 | 5 | - | - | - | 33 | 3.2 | 33 | 3.2 |
| E | - | 3 | 61 | 13 | - | - | - | 75 | 7.2 | 78 | 7.5 |
| SE | - | 3 | 114 | 23 | 1 | - | - | 137 | 13.2 | 140 | [illegible] |
| S | - | 12 | 121 | 62 | 1 | 1 | - | 186 | 17.8 | 197 | [illegible].0 |
| SW | - | 7 | 81 | 58 | 5 | - | - | 144 | 13.9 | 152 | 14.6 |
| W | - | 4 | 105 | 69 | 10 | 1 | - | 185 | 17.8 | 189 | 18.1 |
| NW | - | 2 | 67 | 86 | 7 | - | - | 159 | 15.3 | 161 | 15.5 |
| TOTAL | 9 | 32 | 612 | 359 | 27 | 2 | - | 1000 | - | 1032 | - |
| PER CENT | .9 | 3.1 | 58.8 | 34.5 | 2.6 | .2 | - | 96.1 | - | - | - |

TABLE VII (continued)

## CURRENT AND PROPOSED ACTIVITIES

A site survey is being made by Chicago Guarantee Survey Company to determine the actual boundaries of the site and the local topography.

Pittsburgh Testing Laboratory is being engaged to make test borings to determine the structural properties of the soil and rock formations below the surface, the permeability of the various formation and their water producing qualities. Information may also be obtained regarding possible hydraulic interconnection between the various aquifers which will aid in evaluating waste disposal problems.

A population survey may be made in the vicinity of the plant site since the predominate activity within this area is agricultural. Most of the centers of population are unincorporated villages. The only villages for which we have data within the 5 mile area are Minooka and Channahon withpopulations of 369 and 1000, respectively.

Joliet Airport weather data has been kept on punch cards for the last six years of its existence. This data can be analyzed by the Weather Bureau on request for a nominal fee. The data available is as follows:

1. Hourly temperature, wind direction and speed for 1946-1951.
2. Six-hourly precipitation amounts for 1946-1951.
3. Daily precipitation amounts for 1946-1951.
4. Upper-air data for four times per day giving direction and speed from 500 meters above sea level, or approximately 1000 feet above the surface of Joliet to a maximum of 26,000 meters.

A meteorological tower may be placed on or near the site to measure wind velocities, direction, at various elevations and the vertical temperature gradient. These instruments could be of the recording type so as to be analyzable whenever necessary.

Radiological surveys are being made by the Argonne National Laboratory. They have radiological data covering a radius of 100 miles from Argonne. They are continually monitoring the radiological activities at Channahon just three (3) miles away from the site and may monitor our site in the future, if requested.

# APPENDIX

## Climatological Data

Chicago
Joliet
Peoria

U. S. DEPARTMENT OF COMMERCE
WEATHER BUREAU

# LOCAL CLIMATOLOGICAL DATA

## WITH COMPARATIVE DATA

1954

CHICAGO, ILLINOIS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NARRATIVE CLIMATOLOGICAL SUMMARY

Chicago is located on a crescent shaped plain on the southwest edge of Lake Michigan which is about 580 feet above mean sea level. This plain rises to less than 100 feet above the lake but is bordered inland by glacial moraine, the highest point of which is 150 feet above the plain. The topography around Chicago does not significantly affect the cold and warm air masses which usually approach the city from a southwesterly to a northwesterly direction. The overall climate is little influenced by Lake Michigan. The prevailing winds are from the southwest, from land to lake. Lake Michigan does, however, modify the spring and early summer temperatures considerably near the shore and, to some extent, over the whole city and at times may modify afternoon temperatures near the shore even late in summer. This spring and summer effect is usually due to local lake to shore breezes which reverse the prevailing light gradient wind and are sometimes sufficiently strong to bring about a lake breeze over most of the city. Lake breezes are caused by the more rapid heating of air over land than over water. Another lake effect, usually occurring once or more in a normal winter, is noted when an extremely cold air mass moves in from the north or northeast and, heated by the comparatively warm lake, becomes unstable and produces heavy snow along a narrow strip of the shore. The snow will rarely extend over the entire city.

Chicago's average annual temperature is near 50°. Normal for January, the coldest month, is near 25° and for July, the warmest month, near 75°. Temperature extremes have ranged from 105° on July 24, 1934, to -23° on December 24, 1872. Mid-afternoon humidities in the summer average around 55% with very few summer days falling into the uncomfortable, very hot and humid classification. Daytime humidities in the winter average near 70% which, with the average winter daytime temperature of around 32°, provides insufficient moisture in heated homes, consequently most residents find the addition of moisture to heated air beneficial. These humidity conditions are similar to those of most midwestern sections.

Normal precipitation, near 33 inches per year, is ordinarily distributed favorably for crops, averaging over 3 inches per month during the growing season. The greatest annual total of record is 45.86 inches in 1883 and the least is 22.78 inches in 1934. Probability of measurable precipitation on any day is about 33%, but slightly greater in winter and spring and slightly less in summer and fall. Most summer rains are showery and often associated with thunderstorms. Thunder is heard on 34 days in an average year. Annual snowfall averages about 33 inches accounting for less than one-half the total wintertime precipitation. Snow does not remain on the ground in measurable amounts throughout the average winter. Ice storms normally occur several times each winter but major and damaging ice storms are rather rare.

Wind velocity averages lightest in summer (9 mph) and strongest in spring (only 12 mph) which is comparable to the whole Great Lakes area. This average falls far short of the windiest sections in the United States, contradicting the appellation of "Windy City". Occasional northeasterly winds reaching the city after a long sweep over Lake Michigan result in higher velocities in the loop area and along the immediate shore line than farther inland.

Average sunshine in the summer is approximately 67% of possible but slightly less than 50% in winter. It is a very rare summer day indeed that has no sunshine at all. Clear and partly cloudy days each have a probability of slightly less than 33% while cloudy days are slightly more frequent.

LATITUDE 41° 46.8' N
LONGITUDE 87° 44.6' W
ELEVATION (ground) 610 FEET

# METEOROLOGICAL DATA FOR THE CURRENT YEAR [1]

CHICAGO, ILLINOIS
MIDWAY AI. PORT
1954

| Month | Temperature: Averages: Daily maximum | Temperature: Averages: Daily minimum | Temperature: Averages: Monthly | Temperature: Extremes: Highest | Temperature: Extremes: Date | Temperature: Extremes: Lowest | Temperature: Extremes: Date | Degree days | Precipitation: Total | Precipitation: Greatest in 24 hrs | Precipitation: Date | Precipitation: Snow, Sleet, Hail: Total | Precipitation: Snow, Sleet, Hail: Greatest in 24 hrs | Precipitation: Snow, Sleet, Hail: Date | Relative humidity: 12:30 A.M. CST | Relative humidity: 6:30 A.M. CST | Relative humidity: 12:30 P.M. CST | Relative humidity: 6:30 P.M. CST | Wind: Average hourly speed | Wind: Prevailing direction | Wind: Fastest mile: Speed | Wind: Fastest mile: Direction | Wind: Fastest mile: Date | Percent of possible sunshine | Average sky cover sunrise to sunset | Number of days: Sunrise to sunset: Clear | Partly cloudy | Cloudy | Precipitation .01 inch or more | Snow, Sleet, Hail 1.0 inch or more | Thunderstorms | Heavy fog | Temperatures: Maximum: 90° and above | Maximum: 32° and below | Minimum: 32° and below | Minimum: Zero and below |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN | 35.2 | 20.1 | 27.7 | 53 | 20 | - 7 | 17 | 1149 | 1.10 | 0.69 | 25-26 | 1.9 | 1.0 | 20-21 | 68 | 73 | 64 | 66 | 12.3 | NW | 31 | NW | 9 | 38 | 7.9 | 4 | 3 | 24 | 7 | 0 | 0 | 3 | 0 | 10 | 29 | 2 |
| FEB | 45.5 | 29.6 | 37.6 | 69 | 15 | 9 | 12 | 761 | 2.40 | 1.00 | 15-16 | 8.2 | 3.7 | 25 | 67 | 73 | 58 | 65 | 12.6 | NNW | 32 | SW | 20 | 52 | 6.6 | 6 | 9 | 13 | 10 | 2 | 1 | 0 | 0 | 2 | 16 | 0 |
| MAR | 43.0 | 27.0 | 35.0 | 68 | 25 | 7 | 5 | 922 | 5.00 | 2.30 | 24-25 | 19.9 | 11.8 | 2-3 | 69 | 69 | 53 | 60 | 11.9 | NW | 51 | W | 25 | 55 | 6.3 | 9 | 3 | 19 | 13 | 2 | 3 | 0 | 0 | 4 | 20 | 0 |
| APR | 63.6 | 42.9 | 53.3 | 85 | 26 | 19 | 3 | 354 | 4.43 | 1.60 | 24-25 | T | T | 6+ | 71 | 71 | 53 | 60 | 11.0 | SW | 36 | NW | 7 | 46 | 7.5 | 2 | 11 | 17 | 13 | 0 | 0 | 0 | 0 | 1 | 5 | 0 |
| MAY | 67.5 | 46.6 | 57.1 | 91 | 31 | 32 | 4 | 275 | 1.75 | 0.73 | 27 | 0.2 | 0.2 | 8 | 65 | 67 | 43 | 47 | 10.6 | W | 38 | W | 2 | 61 | 6.7 | [illegible] | 12 | 13 | 7 | 0 | 5 | 0 | 1 | 0 | 1 | 0 |
| JUNE | 86.3 | 65.0 | 75.7 | 100 | 25 | 49 | 3 | 34 | 4.27 | 1.34 | 31-1 | T | T | 35 | 72 | 72 | 50 | 56 | 9.2 | S | 41 | NW | 1 | 70 | 6.2 | - | 16 | 10 | 11 | 0 | 9 | 0 | 10 | 0 | 0 | 0 |
| JULY | 86.5 | 66.4 | 76.5 | 98 | 20 | 55 | 8 | 0 | 4.56 | 2.08 | 6-7 | 0 | 0 | | 73 | 73 | 50 | 55 | 7.3 | S | 36 | NE | 6 | 71 | 5.0 | 12 | 11 | 8 | 8 | 0 | 7 | 0 | 11 | 0 | 0 | 0 |
| AUG | 81.9 | 64.6 | 73.3 | 95 | 23 | 55 | 12 | 0 | 5.91 | 1.80 | 18 | T | T | 9 | 79 | 83 | 57 | 64 | 7.5 | E | 48 | NW | 16 | 59 | 6.4 | 5 | 14 | 12 | 11 | 0 | 5 | 2 | 4 | 0 | 0 | 0 |
| SEPT | 79.9 | 58.8 | 69.4 | 97 | 6+ | 46 | 23+ | 31 | 0.83 | 0.33 | 17 | 0 | 0 | | 72 | 77 | 48 | 57 | 9.4 | SW | 35 | NW | 21 | 66 | 5.3 | 9 | 10 | 11 | 7 | 0 | 2 | 1 | 3 | 0 | 0 | 0 |
| OCT | 63.2 | 47.3 | 55.3 | 91 | 3 | 29 | 30 | 329 | 12.06 | 5.63 | 9-10 | 0.1 | 0.1 | 29 | 77 | 81 | 57 | 67 | 9.8 | SSW | 38 | NW | 29 | 41 | 6.4 | 7 | 10 | 14 | 14 | 0 | 3 | 2 | 1 | 0 | 1 | 0 |
| NOV | 50.2 | 34.8 | 42.5 | 70 | 17+ | 22 | 30 | 666 | 1.80 | 0.57 | 23-24 | 5.7 | 3.6 | 27 | 76 | 81 | 61 | 69 | 10.6 | SSW | 27 | W | 29 | 47 | 6.7 | 8 | 5 | 17 | 11 | 0 | 0 | 0 | 0 | 11 | 0 | 0 |
| DEC | 36.8 | 26.9 | 31.9 | 46 | 26 | 18 | 20+ | 1020 | 1.79 | 0.65 | 26-27 | 8.2 | 5.2 | 29-30 | 76 | 77 | 69 | 75 | 11.3 | SSW | 34 | NW | 23 | 36 | 7.5 | 4 | 8 | 19 | 13 | 4 | 1 | 0 | 0 | 7 | 27 | 0 |
| Year | 61.6 | 44.2 | 52.9 | 100 | JUNE 25 | - 7 | JAN 17 | 5541 | 45.92 | 5.63 | OCT 9-10 | 44.2 | 11.8 | MAR 2-3 | 72 | 75 | 55 | 62 | 10.3 | NW | 51 | W | MAR 25 | 55 | 6.5 | 76 | 112 | 177 | 125 | 10 | 47 | 8 | 36 | 74 | 111 | 2 |

# NORMALS, MEANS, AND EXTREMES [1]

| Month | Temperature: Normal: Daily maximum | Temperature: Normal: Daily minimum | Temperature: Normal: Monthly | Temperature: Extremes: Record highest | Temperature: Extremes: Year | Temperature: Extremes: Record lowest | Temperature: Extremes: Year | Normal degree days | Precipitation: Normal total | Precipitation: Maximum monthly | Precipitation: Year | Precipitation: Minimum monthly | Precipitation: Year | Precipitation: Maximum in 24 hrs | Precipitation: Year | Precipitation: Snow, Sleet, Hail: Mean total | Precipitation: Snow, Sleet, Hail: Maximum monthly | Precipitation: Snow, Sleet, Hail: Year | Precipitation: Snow, Sleet, Hail: Maximum in 24 hrs | Precipitation: Snow, Sleet, Hail: Year | Relative humidity: 12:30 A.M. CST | Relative humidity: 6:30 A.M. CST | Relative humidity: 12:30 P.M. CST | Relative humidity: 6:30 P.M. CST | Wind: Mean hourly speed | Wind: Prevailing direction | Wind: Fastest mile: Speed | Wind: Fastest mile: Direction | Wind: Fastest mile: Year | Pct of possible sunshine | Mean sky cover sunrise to sunset | Mean number of days: Sunrise to sunset: Clear | Partly cloudy | Cloudy | Precipitation .01 inch or more | Snow, Sleet, Hail 1.0 inch or more | Thunderstorms | Heavy fog | Temperatures: Max: 90° and above | Max: 32° and below | Min: 32° and below | Min: 0° and below |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (a) | (b) | (b) | (b) | 84 | | 84 | | (b) | (b) | 84 | | 84 | | 84 | | 70 | 70 | | 64 | | 12 | 36 | 30 | 36 | 39 | 10 | 83 | | | 61 | 84 | 84 | 84 | 84 | 84 | 70 | 75 | 60 | 84 | 84 | 84 | 84 |
| J | 32.7 | 17.1 | 24.9 | 67 | 1950 | -20 | 1897+ | 1243 | 1.84 | 4.84 | 1916 | 0.20 | 1919 | 1.91 | 1916 | 8.7 | 42.5 | 1918 | 14.9 | 1939 | 79 | 80 | 71 | 75 | 11.7 | W | 58 | NE | 1895 | 44 | 6.4 | 7 | 9 | 15 | 11 | 3 | * | 0 | 0 | 14 | 27 | 4 |
| F | 35.0 | 19.8 | 27.4 | 69 | 1954 | -21 | 1899 | 1053 | 1.41 | 5.98 | 1881 | 0.06 | 1877 | 1.98 | 1942 | 8.3 | 27.8 | 1896 | 12.7 | 1908 | 77 | 79 | 68 | 72 | 11.8 | W | 87 | NE | 1894 | 49 | 6.2 | 7 | 8 | 13 | 10 | 2 | * | 1 | 0 | 12 | 24 | 2 |
| M | 45.0 | 29.0 | 37.0 | 82 | 1945 | -12 | 1873 | 868 | 2.85 | 5.58 | 1922 | 0.29 | 1910 | 3.26 | 1884 | 6.2 | 22.4 | 1926 | 14.4 | 1930 | 75 | 77 | 63 | 69 | 12.4 | W | 76 | NE | 1890 | 53 | 6.1 | 8 | 10 | 13 | 12 | 2 | 2 | 1 | 0 | 5 | 19 | * |
| A | 57.6 | 38.6 | 48.1 | 91 | 1942 | 17 | 1875+ | 507 | 2.82 | 8.33 | 1947 | 0.14 | 1899 | 4.08 | 1947 | 1.0 | 13.6 | 1938 | 9.1 | 1936 | 73 | 75 | 58 | 64 | 12.0 | S | 69 | SW | 1902 | 56 | 5.8 | 8 | 10 | 12 | 11 | * | 3 | 1 | * | * | 4 | 0 |
| M | 69.7 | 48.7 | 59.2 | 98 | 1934 | 27 | 1875 | 229 | 3.66 | 7.59 | 1945 | 0.67 | 1934 | 3.00 | 1935 | 0.1 | 2.2 | 1940 | 2.1 | 1940 | 75 | 74 | 57 | 62 | 10.5 | NNE | 69 | SW | 1903 | 63 | 5.3 | 10 | 11 | 10 | 12 | * | 5 | 1 | 1 | 0 | * | 0 |
| J | 80.0 | 58.8 | 69.4 | 104 | 1953 | 35 | 1945 | 58 | 4.15 | 10.58 | 1892 | 0.12 | 1923 | 3.44 | 1885 | T | T | 1954+ | T | 1954+ | 78 | 77 | 59 | 63 | 9.6 | SSW | 62 | NW | 1892 | 69 | 5.3 | 9 | 13 | 8 | 11 | 0 | 7 | 1 | 3 | 0 | 0 | 0 |
| J | 85.3 | 63.9 | 74.6 | 105 | 1934 | 49 | 1947 | 0 | 2.73 | 9.56 | 1889 | 0.22 | 1936 | 4.14 | 1878 | .0 | .0 | | .0 | | 77 | 76 | 56 | 61 | 8.7 | SSW | 69 | SW | 1902 | 73 | 4.3 | 13 | 12 | 6 | 9 | 0 | 2 | * | 5 | 0 | 0 | 0 |
| A | 83.0 | 62.3 | 72.7 | 102 | 1918 | 46 | 1950 | 0 | 3.13 | 11.28 | 1885 | 0.18 | 1893 | 6.19 | 1885 | T | T | 1954+ | T | 1954+ | 80 | 80 | 57 | 65 | 8.7 | SSW | 62 | SW | 1898 | 70 | 4.6 | 12 | 12 | 7 | 9 | 0 | 6 | * | 3 | 0 | 0 | 0 |
| S | 75.9 | 55.2 | 65.6 | 101 | 1953 | 29 | 1942 | 90 | 3.23 | 8.97 | 1936 | 0.31 | 1940 | 3.44 | 1875 | T | T | 1952+ | T | 1952+ | 78 | 81 | 56 | 66 | 9.5 | S | 69 | SW | 1900 | 65 | 4.7 | 12 | 10 | 8 | 9 | 0 | 4 | 1 | 1 | 0 | * | 0 |
| O | 64.3 | 43.9 | 54.1 | 91 | 1954 | 14 | 1887 | 350 | 2.56 | 12.06 | 1954 | 0.18 | 1897 | 5.63 | 1954 | 0.1 | 3.0 | 1952 | 3.0 | 1952 | 74 | 79 | 56 | 65 | 10.2 | S | 62 | SW | 1890 | 61 | 5.0 | 12 | 9 | 10 | 9 | * | 2 | 1 | * | * | 1 | 0 |
| N | 47.6 | 31.3 | 39.5 | 81 | 1950 | - 2 | 1872 | 765 | 2.33 | 6.08 | 1877 | 0.31 | 1904 | 3.39 | 1883 | 2.2 | 14.8 | 1940 | 11.5 | 1895 | 78 | 78 | 63 | 69 | 11.8 | SSW | 76 | SE | 1898 | 47 | 6.3 | 8 | 8 | 14 | 10 | 1 | 1 | 1 | 0 | 3 | 12 | * |
| D | 35.3 | 20.6 | 28.0 | 68 | 1875 | -23 | 1872 | 1147 | 1.95 | 6.76 | 1893 | 0.18 | 1896 | 2.68 | 1895 | 7.3 | 33.3 | 1951 | 11.3 | 1903 | 78 | 80 | 70 | 75 | 11.3 | W | 66 | SW | 1904 | 41 | 6.6 | 7 | 8 | 14 | 11 | 2 | * | 1 | 0 | 11 | 23 | 2 |
| Year | 59.3 | 40.8 | 50.1 | 105 | JULY 1934 | -23 | DEC 1872 | 6310 | 32.72 | 12.06 | OCT 1954 | 0.06 | FEB 1877 | 6.19 | AUG 1885 | 33.9 | 42.5 | JAN 1918 | 14.9 | JAN 1939 | 77 | 78 | 61 | 67 | 10.7 | SSW | 87 | NE | FEB 1894 | 59 | 5.5 | 113 | 120 | 132 | 124 | 10 | 37 | 11 | 13 | 45 | 110 | 8 |

(a) Length of record, years. (b) Normal values are based on the period 1921-1950, and are means adjusted to represent observations taken at the present standard location.

## AVERAGE TEMPERATURE

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | A. 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1900 | 28.7 | 29.1 | 29.0 | 46.8 | 56.1 | 64.0 | 71.6 | 76.3 | 65.6 | 51.4 | 38.4 | 30.0 | 49.2 |
| 1901 | 26.0 | 17.0 | 34.0 | 45.0 | 54.1 | 69.1 | 77.4 | 71.6 | 64.3 | 55.4 | 37.6 | 24.0 | 48.0 |
| 1902 | 25.2 | 26.5 | 38.6 | 46.4 | 59.0 | 64.2 | 72.4 | 68.4 | 60.8 | 55.2 | 47.0 | 26.5 | 48.7 |
| 1903 | 24.0 | 25.0 | 40.4 | 47.2 | 59.4 | 61.2 | 73.2 | 68.4 | 64.4 | 53.6 | 36.4 | 20.0 | 47.7 |
| 1904 | 17.7 | 17.2 | 35.2 | 40.7 | 57.3 | 64.2 | 71.0 | 68.3 | 64.5 | 53.4 | 42.8 | 26.8 | 46.6 |
| 1905 | 18.[illegible] | 17.0 | 39.2 | 45.3 | 56.4 | 65.4 | 71.2 | 74.0 | 67.5 | 53.4 | 40.6 | 31.8 | 48.3 |
| 1906 | 32.6 | 27.6 | 30.2 | 50.7 | 59.8 | 68.0 | 71.6 | 75.6 | 70.1 | 52.8 | 41.8 | 32.8 | 51.1 |
| 1907 | 27.8 | 28.4 | 42.6 | 39.8 | 51.6 | 66.2 | 73.3 | 71.2 | 64.6 | 52.6 | 41.0 | 32.8 | 49.2 |
| 1908 | 28.6 | 26.7 | 40.6 | 49.0 | 58.7 | 68.4 | 74.3 | 73.4 | 70.6 | 55.2 | 43.5 | 31.3 | 51.7 |
| 1909 | 28.8 | 32.4 | 36.0 | 45.0 | 55.9 | 66.6 | 72.3 | 74.8 | 64.0 | 50.6 | 48.5 | 31.6 | 49.7 |
| 1910 | 25.6 | 24.8 | 48.6 | 51.2 | 53.4 | 68.2 | 76.0 | 73.3 | 65.2 | 58.6 | 36.0 | 26.4 | 50.6 |
| 1911 | 29.2 | 32.4 | 39.2 | 46.1 | 65.9 | 72.4 | 76.0 | 71.8 | 67.0 | 53.2 | 35.4 | 35.0 | 52.0 |
| 1912 | 11.9 | 21.6 | 28.8 | 48.8 | 59.9 | 66.0 | 72.9 | 71.0 | 67.7 | 55.8 | 42.8 | 33.4 | 48.4 |
| 1913 | 29.3 | 24.9 | 35.2 | 48.8 | 57.8 | 70.5 | 74.9 | 74.3 | 65.4 | 53.3 | 47.2 | 37.4 | 51.6 |
| 1914 | 32.4 | 20.2 | 35.7 | 48.3 | 62.3 | 70.2 | 75.0 | 74.2 | 66.6 | 59.4 | 4[illegible] | 24.1 | 51.1 |
| 1915 | 24.1 | 34.5 | 34.8 | 56.3 | 54.1 | 63.8 | 70.2 | 66.6 | 67.2 | 56.4 | 44.2 | 29.1 | 50.1 |
| 1916 | 28.8 | 25.0 | 34.6 | 48.0 | 59.3 | 63.5 | 78.4 | 78.6 | 64.4 | 54.6 | 43.2 | 26.0 | 50.2 |
| 1917 | 24.2 | 19.8 | 38.8 | 44.8 | 52.6 | 63.8 | 72.2 | 70.4 | 63.7 | 45.0 | 43.0 | 22.4 | 46.7 |
| 1918 | 13.3 | 27.2 | 42.2 | 44.0 | 63.7 | 66.9 | 71.2 | 75.7 | 59.8 | 57.4 | 43.5 | 37.7 | 50.2 |
| 1919 | 31.0 | 30.5 | 38.5 | 48.0 | 55.2 | 73.6 | 77.0 | 73.4 | 68.9 | 57.2 | 39.2 | 21.4 | 51.1 |
| 1920 | 18.8 | 25.8 | 40.2 | 43.0 | 55.6 | 69.1 | 71.5 | 71.0 | 69.3 | 61.9 | 40.2 | 32.4 | 49.9 |
| 1921 | 32.4 | 33.4 | 45.8 | 54.2 | 61.7 | 73.8 | 81.2 | 72.8 | 70.0 | 54.8 | 40.8 | 32.5 | 54.4 |
| 1922 | 24.8 | 29.4 | 39.4 | 48.7 | 63.8 | 70.8 | 73.3 | 73.2 | 69.5 | 57.6 | 44.8 | 29.9 | 52.1 |
| 1923 | 30.8 | 22.3 | 33.0 | 46.6 | 54.4 | 70.8 | 74.4 | 70.8 | 65.1 | 52.5 | 43.8 | 29.7 | 50.4 |
| 1924 | 19.8 | 28.8 | 34.6 | 49.0 | 54.4 | 64.5 | 70.2 | 71.0 | 60.3 | 59.8 | 41.5 | 23.4 | 48.1 |
| 1925 | 25.9 | 33.3 | 39.7 | 52.8 | 54.7 | 71.8 | 73.0 | 73.6 | 70.2 | 45.0 | 29.0 | 25.4 | 50.2 |
| 1926 | 28.4 | 30.9 | 36.2 | 45.0 | 58.4 | 65.4 | 71.1 | 75.0 | 64.4 | 52.4 | 37.0 | 26.6 | 47.9 |
| 1927 | 24.8 | 35.0 | 42.0 | 47.8 | 58.8 | 64.8 | 71.7 | 68.7 | 68.0 | 58.0 | 43.2 | 26.9 | 50.6 |
| 1928 | 25.2 | 30.2 | 36.9 | 44.7 | 58.2 | 63.0 | 72.8 | 72.2 | 61.4 | 56.5 | 42.2 | 32.2 | 49.6 |
| 1929 | 17.6 | 21.6 | 43.2 | 51.1 | 58.8 | 64.4 | 73.8 | 70.6 | 64.6 | 53.1 | 36.3 | 28.6 | 48.5 |
| 1930 | 20.1 | 27.1 | 36.1 | 49.3 | 61.2 | 70.1 | 74.2 | 73.4 | 68.9 | 51.6 | 42.4 | 29.7 | 51.0 |
| 1931 | 32.0 | 25.6 | 34.8 | 49.2 | 55.6 | 71.8 | 76.4 | 73.2 | 71.2 | 56.8 | 50.0 | 38.4 | 53.9 |
| 1932 | 33.6 | 35.0 | 30.1 | 48.4 | 59.6 | 70.6 | 74.7 | 73.7 | 64.4 | 52.6 | 37.2 | 28.8 | 50.6 |
| 1933 | 36.7 | 36.2 | 35.4 | 48.8 | 60.0 | 70.2 | 75.6 | 71.4 | 69.8 | 52.8 | 38.0 | 31.3 | 51.7 |
| 1934 | 32.3 | 32.9 | 33.9 | 48.8 | 65.2 | 71.6 | 76.6 | 72.4 | 64.2 | 56.0 | 45.8 | 26.2 | 51.2 |
| 1935 | 25.6 | 29.6 | 41.3 | 44.0 | 53.0 | 65.1 | 76.8 | 73.4 | 65.8 | 54.2 | 39.6 | 25.3 | 49.4 |
| 1936 | 19.0 | 15.2 | 39.6 | 43.8 | 64.4 | 64.6 | 76.8 | 75.0 | 68.2 | 53.6 | 38.0 | 34.0 | 49.3 |
| 1937 | 26.9 | 26.4 | 32.8 | 46.5 | 57.9 | 65.9 | 74.4 | 75.7 | 65.1 | 51.2 | 37.4 | 26.6 | 48.9 |
| 1938 | 25.4 | 34.6 | 46.0 | 50.2 | 58.3 | 67.6 | 73.8 | 75.0 | 65.0 | 58.8 | 43.6 | 29.2 | 52.2 |
| 1939 | 31.6 | 27.6 | 38.2 | 45.2 | 61.4 | 70.8 | 74.0 | 72.8 | 70.0 | 56.0 | 41.6 | 35.0 | 52.0 |
| 1940 | 16.2 | 29.2 | 32.2 | 44.6 | 54.1 | 67.4 | 74.2 | 72.0 | 64.6 | 57.4 | 38.6 | 33.5 | 48.7 |
| 1941 | 28.1 | 25.8 | 32.0 | 52.7 | 62.4 | 69.4 | 73.7 | 73.6 | 68.8 | 56.9 | 43.2 | 36.4 | 51.9 |
| 1942 | 27.8 | 26.2 | 29.2 | 53.8 | 59.5 | 68.2 | 75.3 | 75.3 | 62.4 | 53.3 | 40.9 | 33.0 | 50.0 |
| 1943 | 33.6 | 27.8 | 33.2 | 45.6 | 56.6 | 72.2 | 75.7 | 75.0 | 61.6 | 53.7 | 36.2 | 27.6 | 48.9 |
| 1944 | 31.4 | 29.0 | 32.3 | 48.3 | 64.4 | 73.8 | 74.2 | 74.1 | 66.2 | 53.4 | 43.7 | 32.0 | 50.8 |
| 1945 | 19.2 | 28.8 | 48.6 | 49.8 | 54.1 | 65.4 | 73.0 | 73.0 | 64.0 | 51.4 | 39.8 | 33.2 | 48.9 |
| 1946 | 26.7 | 28.6 | 47.2 | 51.1 | 56.9 | 68.5 | 74.6 | 69.9 | 65.6 | 58.5 | 42.4 | 31.0 | 51.8 |
| 1947 | 28.7 | 30.4 | 31.8 | 46.6 | 53.8 | 66.0 | 71.1 | 80.2 | 66.7 | 62.1 | 44.0 | 30.0 | 49.3 |
| 1948 | 18.0 | 26.3 | 36.1 | 53.1 | 55.0 | 67.6 | 74.8 | 73.6 | 67.8 | 51.5 | 43.0 | 30.4 | 49.8 |
| 1949 | 28.4 | 27.8 | 37.5 | 47.8 | 61.5 | 74.0 | 77.8 | 74.7 | 60.4 | 57.2 | 40.1 | 31.6 | 51.6 |
| 1950 | 29.4 | 36.3 | 32.9 | 41.5 | 60.5 | 69.1 | 72.3 | 70.0 | 64.9 | 59.0 | 34.3 | 19.6 | 48.3 |
| 1951 | 23.5 | 27.3 | 35.5 | 48.9 | 62.1 | 68.9 | 73.8 | 70.0 | 62.9 | 54.9 | 32.9 | 26.2 | 48.4 |
| 1952 | 37.3 | 32.3 | 35.2 | [illegible]1.2 | 58.7 | 74.3 | 77.4 | 72.7 | 65.5 | 48.9 | 42.8 | 33.4 | 51.6 |
| 1953 | 28.2 | 31.7 | 39.[illegible] | 46.7 | 61.0 | 73.6 | 78.4 | 75.8 | 67.6 | 59.7 | 44.4 | 31.8 | 53.1 |
| 1954 | 27.7 | 37.6 | 38 | [illegible]53.3 | 57.1 | 75.7 | 76.5 | 73.3 | 69.4 | 55.3 | 42.5 | 31.9 | 52.9 |
| RECORD MEAN | | | | | | | | | | | | | |
| TEMP | 25.0 | 27.0 | 36.2 | 47.3 | 57.7 | 67.8 | 73.5 | 72.1 | 65.5 | 54.3 | 40.3 | 29.5 | 49.7 |
| MAX | 33.0 | 33.9 | 43.2 | 54.9 | 65.9 | 75.8 | 81.1 | 79.2 | 73.0 | 61.7 | 47.0 | 35.7 | 57.0 |
| MIN | 18.0 | 20.1 | 29.2 | 39.6 | 49.4 | 59.7 | 65.8 | 65.0 | 57.9 | 46.8 | 33.6 | 23.3 | 42.4 |

## TOTAL PRECIPITATION

CHICAGO, ILLINOIS
MIDWAY AIRPORT
1954

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1900 | 1.21 | 3.52 | 1.58 | 1.02 | 3.59 | 2.06 | 4.64 | 4.26 | 1.56 | 1.35 | 3.30 | 0.58 | 28.65 |
| 1901 | 1.15 | 2.05 | 3.38 | 0.33 | 2.18 | 2.47 | 4.25 | 2.00 | 2.92 | 1.29 | 0.85 | 1.70 | 24.52 |
| 1902 | 0.66 | 1.53 | 4.16 | 2.26 | 5.08 | 6.45 | 5.78 | 1.44 | 4.83 | 1.45 | 2.03 | 1.90 | 37.57 |
| 1903 | 1.09 | 3.03 | 1.67 | 3.77 | 0.93 | 1.02 | 4.78 | 3.49 | 4.00 | 1.09 | 0.34 | 3.28 | 28.09 |
| 1904 | 2.25 | 1.71 | 4.37 | 3.01 | 1.54 | 0.55 | 2.76 | 4.00 | 2.65 | 1.58 | 0.31 | 1.21 | 28.14 |
| 1905 | 1.33 | 1.95 | 2.42 | 3.03 | 5.14 | 3.27 | 5.02 | 4.46 | 4.18 | 1.82 | 2.05 | 0.68 | 35.36 |
| 1906 | 1.67 | 2.37 | 1.81 | 1.86 | 2.09 | 1.87 | 4.84 | 1.43 | 5.54 | 2.05 | 3.08 | 2.46 | 30.87 |
| 1907 | 4.21 | 1.00 | 2.94 | 2.37 | 3.50 | 3.64 | 3.15 | 4.22 | 4.49 | 0.93 | 1.92 | 2.73 | 35.10 |
| 1908 | 2.05 | 3.72 | 3.48 | 3.81 | 6.74 | 1.48 | 1.45 | 6.35 | 2.09 | 0.81 | 2.67 | 1.18 | 34.83 |
| 1909 | 1.96 | 3.84 | 1.63 | 7.72 | 2.18 | 5.09 | 1.77 | 6.20 | 3.60 | 1.20 | 3.84 | 4.18 | 43.23 |
| 1910 | 2.07 | 0.89 | 0.29 | 3.84 | 4.67 | 0.91 | 1.79 | 3.08 | 3.90 | 1.79 | 1.31 | 1.32 | 28.86 |
| 1911 | 1.17 | 2.27 | 1.45 | 3.03 | 3.27 | 2.54 | 2.65 | 3.73 | 4.03 | 3.79 | 3.27 | 2.54 | 33.83 |
| 1912 | 0.84 | 1.57 | 2.20 | 2.55 | 3.97 | 1.78 | 3.86 | 3.59 | 3.26 | 3.52 | 1.45 | 1.08 | 29.67 |
| 1913 | 1.33 | 1.97 | 3.44 | 1.91 | 4.38 | 1.08 | 3.30 | 4.06 | 1.49 | 3.23 | 1.47 | 0.45 | 27.11 |
| 1914 | 3.01 | 0.93 | 1.87 | 1.07 | 5.22 | 3.53 | 2.11 | 3.76 | 1.56 | 2.89 | 0.32 | 2.33 | 28.61 |
| 1915 | 1.99 | 1.92 | 0.60 | 1.02 | 7.04 | 3.60 | 5.57 | 4.33 | 3.53 | 0.40 | 3.03 | 1.31 | 33.34 |
| 1916 | 4.84 | 0.87 | 2.48 | 1.50 | 2.93 | 7.25 | 2.22 | 1.05 | 2.24 | 3.58 | 2.11 | 2.58 | 34.05 |
| 1917 | 1.55 | 0.67 | 2.11 | 2.58 | 3.41 | 2.87 | 2.68 | 1.24 | 2.15 | 3.96 | 0.56 | 0.88 | 24.66 |
| 1918 | 4.12 | 2.91 | 2.05 | 3.41 | 4.57 | 1.69 | 2.66 | 1.27 | 1.84 | 2.94 | 2.65 | 3.24 | 33.25 |
| 1919 | 0.20 | 2.78 | 4.32 | 3.16 | 3.84 | 3.16 | 1.59 | 1.10 | 3.85 | 6.41 | 3.78 | 0.70 | 33.49 |
| 1920 | 1.11 | 0.13 | 4.57 | 4.71 | 1.81 | 3.94 | 1.81 | 3.16 | 3.25 | 1.57 | 0.92 | 3.33 | 30.21 |
| 1921 | 0.97 | 0.38 | 4.00 | 4.47 | 0.80 | 1.57 | 1.87 | 4.92 | 5.72 | 3.26 | 3.51 | 4.83 | 36.10 |
| 1922 | 1.16 | 0.74 | 5.58 | 3.70 | 3.18 | 0.12 | 4.00 | 1.45 | 4.37 | 3.40 | 2.66 | 1.21 | 31.57 |
| 1923 | 0.92 | 1.05 | 3.05 | 1.38 | 3.46 | 1.79 | 2.67 | 7.76 | 2.50 | 4.57 | 1.42 | 1.96 | 33.48 |
| 1924 | 1.32 | 1.88 | 3.70 | 0.84 | 2.30 | 8.80 | 3.66 | 8.12 | 3.14 | 0.84 | 0.86 | 1.90 | 34.98 |
| 1925 | 0.68 | 1.59 | 1.51 | 3.19 | 1.54 | 4.53 | 2.47 | 2.09 | 3.19 | 3.72 | 3.37 | 1.21 | 28.33 |
| 1926 | 1.55 | 2.92 | 3.14 | 1.94 | 2.73 | 7.62 | 3.21 | 0.58 | 5.03 | 1.47 | 3.97 | 0.87 | 35.46 |
| 1927 | 1.15 | 0.75 | 3.68 | 6.01 | 4.40 | 3.55 | 2.94 | 7.17 | 6.72 | 1.77 | 4.66 | 2.74 | 39.55 |
| 1928 | 0.73 | 1.57 | 1.58 | 2.24 | 1.59 | 6.97 | 2.95 | 3.03 | 1.87 | 2.74 | 4.00 | 3.63 | 33.92 |
| 1929 | 3.93 | 0.34 | 5.23 | 4.79 | 2.29 | 4.96 | 2.18 | 3.48 | 3.03 | 3.06 | 1.47 | 1.84 | 36.81 |
| 1930 | 2.33 | 1.42 | 3.82 | 2.30 | 2.16 | 2.49 | 3.63 | 1.17 | 1.29 | 2.81 | 1.75 | 0.27 | 23.34 |
| 1931 | 0.57 | 0.76 | 3.33 | 1.75 | 3.06 | 4.78 | 2.68 | 5.87 | 5.14 | 2.62 | 4.63 | 2.28 | 39.29 |
| 1932 | 2.20 | 1.21 | 3.18 | 0.58 | 2.99 | 4.79 | 4.67 | 3.08 | 1.12 | 3.53 | 2.24 | 3.46 | 31.86 |
| 1933 | 2.32 | 1.22 | 4.05 | 2.61 | 5.03 | 3.44 | 2.70 | 1.14 | 3.78 | 5.64 | 0.68 | 1.38 | 33.00 |
| 1934 | 0.84 | 0.53 | 1.21 | 1.32 | 0.67 | 2.24 | 0.42 | 3.41 | 4.03 | 3.32 | 3.87 | 1.93 | 23.78 |
| 1935 | 2.34 | 1.59 | 3.48 | 1.77 | 7.09 | 5.03 | 3.05 | 3.56 | 3.28 | 1.88 | 3.62 | 1.24 | 37.73 |
| 1936 | 1.64 | 1.33 | 1.00 | 3.54 | 2.06 | 1.03 | 0.22 | 4.29 | 6.97 | 3.00 | 0.90 | 2.58 | 29.58 |
| 1937 | 2.29 | 0.63 | 1.29 | 4.61 | 1.64 | 5.02 | 1.41 | 2.68 | 1.89 | 3.09 | 1.25 | 1.27 | 26.98 |
| 1938 | 3.03 | 3.11 | 3.51 | 2.30 | 3.98 | 6.75 | 3.90 | 2.12 | 5.29 | 0.77 | 0.95 | 1.18 | 34.81 |
| 1939 | 3.13 | 1.98 | 2.98 | 3.23 | 3.66 | 5.13 | 3.74 | 1.47 | 0.49 | 1.79 | 0.95 | 0.90 | 27.51 |
| 1940 | 1.35 | 0.89 | 2.41 | 3.17 | 5.16 | 1.31 | 1.29 | 3.95 | 0.31 | 3.26 | 2.36 | 1.38 | 26.74 |
| 1941 | 2.26 | 1.01 | 2.60 | 2.63 | 3.42 | 3.43 | 4.10 | 2.16 | 3.29 | 6.14 | 2.07 | 0.97 | 35.28 |
| 1942 | 1.39 | 3.03 | 2.58 | 1.56 | 4.50 | 1.87 | 4.03 | 3.61 | 5.12 | 1.44 | 3.71 | 2.71 | 35.66 |
| 1943 | 3.12 | 1.34 | 3.47 | 3.27 | 7.08 | 1.47 | 5.14 | 5.20 | 0.92 | 1.49 | 1.38 | 0.34 | 32.33 |
| 1944 | 0.89 | 1.70 | 4.51 | 3.33 | 4.36 | 3.18 | 1.93 | 1.89 | 1.56 | 0.59 | 1.31 | 1.10 | 28.35 |
| 1945 | 0.80 | 1.18 | 3.29 | 4.20 | 7.59 | 4.12 | 1.33 | 4.23 | 6.01 | 1.18 | 2.88 | 1.65 | 37.46 |
| 1946 | 1.84 | 0.98 | 3.67 | 1.28 | 3.54 | 5.22 | 2.49 | 1.93 | 2.01 | 3.82 | 3.17 | 2.43 | 31.38 |
| 1947 | 2.06 | 0.28 | 3.59 | 5.33 | 3.97 | 4.40 | 4.10 | 3.16 | 3.28 | 2.90 | 2.65 | 1.63 | 39.21 |
| 1948 | 1.71 | 1.62 | 4.65 | 1.44 | 4.80 | 3.21 | 3.18 | 2.50 | 2.38 | 0.62 | 3.41 | 3.04 | 31.56 |
| 1949 | 3.32 | 2.42 | 3.32 | 2.14 | 2.46 | 3.65 | 3.59 | 1.31 | 1.24 | 2.73 | 0.89 | 6.67 | 33.74 |
| 1950 | 3.77 | 3.35 | 2.01 | 4.67 | 0.78 | 8.69 | 6.78 | 1.78 | 2.00 | 1.29 | 1.63 | 2.70 | 39.65 |
| 1951 | 1.81 | 3.83 | 3.81 | 4.63 | 4.90 | 2.05 | 4.96 | 4.86 | 5.29 | 3.73 | 3.74 | 3.78 | 43.15 |
| 1952 | 3.18 | 0.44 | 3.64 | 2.54 | 3.18 | 3.63 | 2.27 | 3.69 | 1.61 | 0.90 | 3.25 | 1.96 | 28.29 |
| 1953 | 1.47 | 1.58 | 3.92 | 2.82 | 2.43 | 4.63 | 4.16 | 1.00 | 2.02 | 1.35 | 1.77 | 3.10 | 30.15 |
| 1954 | 1.19 | 2.40 | 5.00 | 4.42 | 1.75 | 4.27 | 4.58 | 5.91 | 0.83 | 12.98 | 1.80 | 1.79 | 65.92 |
| RECORD MEAN | 1.94 | 1.87 | 2.75 | 2.88 | 3.56 | 3.62 | 3.22 | 3.14 | 3.11 | 2.64 | 2.36 | 3.03 | 33.12 |

## MONTHLY AND SEASONAL SNOWFALL

| Season | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1899-1900 | 0 | 0 | 0 | 0 | T | 3.5 | 0.3 | 22.8 | 6.8 | 3.6 | 0 | 0 | 36.9 |
| 1900-1901 | 0 | 0 | 0 | 0 | 1.1 | 3.6 | 9.2 | 21.1 | 5.9 | T | 0 | 0 | 40.9 |
| 1901-1902 | 0 | 0 | 0 | 0 | 0.1 | 4.2 | 5.2 | 5.5 | 3.1 | 0.1 | T | 0 | 18.2 |
| 1902-1903 | 0 | 0 | 0 | 0 | 0.5 | 5.3 | 5.0 | 19.5 | 0.7 | 3.2 | 0 | 0 | 34.2 |
| 1903-1904 | 0 | 0 | 0 | 0 | 2.2 | 18.6 | 11.0 | 13.4 | 14.2 | T | 0 | 0 | 59.5 |
| 1904-1905 | 0 | 0 | 0 | T | T | 0.8 | 8.2 | 14.1 | 4.5 | 0.2 | 0 | 0 | 34.1 |
| 1905-1906 | 0 | 0 | 0 | T | T | 2.8 | 2.9 | 5.9 | 9.0 | 0 | 0 | 0 | 20.6 |
| 1906-1907 | 0 | 0 | 0 | T | 2.8 | 0.3 | 10.9 | 10.0 | 2.1 | 1.9 | 1.3 | 0 | 29.3 |
| 1907-1908 | 0 | 0 | 0 | 0 | 3.9 | 12.8 | 13.2 | 19.8 | 0.1 | T | 0 | 0 | 48.9 |
| 1908-1909 | 0 | 0 | 0 | 0 | 0.9 | 2.7 | 8.6 | 10.1 | 3.8 | 0.3 | T | 0 | 26.4 |
| 1909-1910 | 0 | 0 | 0 | T | T | 19.1 | 14.9 | 2.8 | T | 8.9 | 0 | T | 43.7 |
| 1910-1911 | 0 | 0 | 0 | T | 1.2 | 9.2 | 2.2 | 9.8 | 4.9 | 2.4 | T | 0 | 29.8 |
| 1911-1912 | 0 | 0 | 0 | T | 1.2 | 7.6 | 7.1 | 9.9 | 13.5 | 0.1 | 0 | 0 | 39.6 |
| 1912-1913 | 0 | 0 | 0 | 0 | 0.4 | T | 6.1 | 5.7 | 7.0 | T | 0 | 0 | 19.1 |
| 1913-1914 | 0 | 0 | 0 | 1.9 | T | 2.7 | 14.8 | 7.2 | 1.5 | 0.1 | 0 | 0 | 28.2 |
| 1914-1915 | 0 | 0 | 0 | T | T | 8.4 | 6.5 | 0.5 | 3.6 | T | 0 | 0 | 19.0 |
| 1915-1916 | 0 | 0 | 0 | 0 | 0.7 | 9.2 | 2.7 | 8.0 | 5.5 | 0 | 0 | 0 | 26.1 |
| 1916-1917 | 0 | 0 | 0 | T | 0.1 | 7.1 | 9.9 | 4.5 | 2.1 | T | T | 0 | 23.7 |
| 1917-1918 | 0 | 0 | 0 | 1.3 | 1.3 | 9.0 | 42.5 | 8.4 | 1.4 | T | 0 | 0 | 64.1 |
| 1918-1919 | 0 | 0 | 0 | T | 0.5 | 8.6 | 3.0 | 6.6 | 11.0 | T | 0 | 0 | 28.7 |
| 1919-1920 | 0 | 0 | 0 | 0 | 0.6 | 7.8 | 12.4 | 1.7 | 3.3 | 6.4 | 0 | 0 | 32.2 |
| 1920-1921 | 0 | 0 | 0 | 0.3 | 1.3 | 4.4 | 3.2 | 0.3 | T | 0.4 | 0 | 0 | 9.8 |
| 1921-1922 | 0 | 0 | 0 | T | 1.6 | 4.2 | 3.0 | 0.9 | 2.6 | T | 0 | 0 | 11.5 |
| 1922-1923 | 0 | 0 | 0 | 0 | 0.2 | 2.6 | 4.4 | 8.0 | 5.3 | 0.6 | 0.8 | 0 | 21.5 |
| 1923-1924 | 0 | 0 | 0 | 0.7 | T | 1.6 | 5.7 | 7.7 | 11.5 | 0.4 | T | 0 | 27.6 |
| 1924-1925 | 0 | 0 | 0 | 0 | 0 | 3.3 | 6.8 | 4.6 | 3.2 | 0 | T | 0 | 18.9 |
| 1925-1926 | 0 | 0 | 0 | 1.7 | 2.3 | 6.2 | 3.9 | 9.0 | 22.4 | 7.3 | 0 | 0 | 52.3 |
| 1926-1927 | 0 | 0 | 0 | T | 3.9 | 5.0 | 12.2 | 1.3 | 0.4 | 0.5 | 0 | 0 | 23.8 |
| 1927-1928 | 0 | 0 | 0 | 0 | 4.9 | 9.6 | 0.6 | 8.5 | 8.3 | 1.0 | 0 | 0 | 32.9 |
| 1928-1929 | 0 | 0 | T | 0 | T | 3.3 | 17.5 | 8.0 | 0.7 | T | T | 0 | 30.1 |

| Season | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1929-1930 | 0 | 0 | 0 | 0.7 | 0.1 | 20.2 | 14.1 | 1.5 | 21.6 | T | 0 | 0 | 58.3 |
| 1930-1931 | 0 | 0 | 0 | T | 1.7 | 3.2 | 2.1 | 0.4 | 19.8 | T | 0 | 0 | 27.2 |
| 1931-1932 | 0 | 0 | 0 | 0 | 0.2 | 5.6 | 1.9 | 5.6 | 11.3 | T | 0 | 0 | 24.6 |
| 1932-1933 | 0 | 0 | 0 | T | 0.6 | 7.3 | 9.9 | 12.7 | 6.5 | 0.1 | 0 | 0 | 37.1 |
| 1933-1934 | 0 | 0 | 0 | T | 1.4 | 7.1 | 0.3 | 9.3 | 7.3 | T | 0 | 0 | 25.4 |
| 1934-1935 | 0 | 0 | 0 | T | T | 27.4 | 6.0 | 9.7 | 4.5 | 0.8 | T | 0 | 48.3 |
| 1935-1936 | 0 | 0 | 0 | T | 0.5 | 8.2 | 11.6 | 12.7 | 3.0 | 4.8 | 0 | 0 | 39.8 |
| 1936-1937 | 0 | 0 | 0 | T | 0.6 | 0.5 | 2.4 | 3.1 | 4.8 | 0.8 | 0 | 0 | 12.0 |
| 1937-1938 | 0 | 0 | 0 | T | 2.7 | 3.4 | 8.3 | 5.4 | 2.8 | 13.6 | 0 | 0 | 34.2 |
| 1938-1939 | 0 | 0 | 0 | T | 0.2 | 3.5 | 24.7 | 5.1 | 0.3 | 9.1 | 0 | 0 | 33.9 |
| 1939-1940 | 0 | 0 | 0 | 0 | 0.4 | 0.5 | 8.6 | 12.9 | 6.3 | 0.1 | 2.2 | 0 | 31.0 |
| 1940-1941 | 0 | 0 | 0 | 0 | 14.8 | 4.1 | 10.7 | 11.2 | 11.7 | 0 | 0 | 0 | 52.5 |
| 1941-1942 | 0 | 0 | 0 | 0 | 5.2 | 1.7 | 4.6 | 3.2 | 3.1 | 0 | 0 | 0 | 19.8 |
| 1942-1943 | 0 | 0 | T | T | 5.3 | 10.1 | 20.8 | 2.9 | 7.8 | 0.3 | 0 | 0 | 47.2 |
| 1943-1944 | 0 | 0 | 0 | T | 0.2 | 0.1 | 3.3 | 12.5 | 7.9 | T | T | 0 | 24.0 |
| 1944-1945 | 0 | 0 | 0 | 0 | 1.0 | 13.8 | 12.8 | 4.3 | 1.0 | T | T | 0 | 34.9 |
| 1945-1946 | 0 | 0 | 0 | 0 | 0.7 | 11.1 | 3.9 | 7.8 | 0.4 | 0 | 0 | 0 | 23.9 |
| 1946-1947 | 0 | 0 | 0 | 0 | T | 8.3 | 7.4 | 5.0 | 13.3 | 0.1 | T | 0 | 33.8 |
| 1947-1948 | 0 | 0 | 0 | 0 | 0 | 5.1 | 9.9 | 5.6 | 10.3 | T | 0 | 0 | 36.1 |
| 1948-1949 | 0 | 0 | 0 | 0 | T | 8.6 | 0.5 | 3.9 | 0.6 | 0.5 | T | 0 | 14.3 |
| 1949-1950 | 0 | T | 0 | 0 | 2.6 | 5.3 | 3.0 | 16.6 | 5.3 | 1.9 | 0 | T | 33.8 |
| 1950-1951 | 0 | 0 | 0 | 0 | T | 0 | 27.1 | 6.2 | 6.8 | 4.9 | 2.8 | 0 | 54.8 |
| 1951-1952 | 0 | 0 | 0 | T | 14.3 | 33.3 | 8.3 | 2.0 | 7.5 | 1.0 | 0 | T | 66.4 |
| 1952-1953 | 0 | 0 | T | 3.0 | T | 5.0 | 5.1 | 5.5 | 4.8 | T | T | 0 | 23.4 |
| 1953-1954 | 0 | 0 | 0 | 0 | 7.8 | 5.4 | 1.9 | 8.2 | 19.9 | T | 0.2 | T | 43.2 |
| 1954 | 0 | T | 0 | 0.1 | 5.7 | 8.2 | | | | | | | |

CHICAGO, ILLINOIS
MIDWAY AIRPORT
1954

# MONTHLY AND SEASONAL DEGREE DAYS

| Season | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1899-1900 | 2 | 0 | 175 | 246 | 604 | 1170 | 1126 | 1258 | 1116 | 550 | 262 | 104 | 6614 |
| 1900-1901 | 0 | 0 | 99 | 158 | 798 | 1084 | 1209 | 1343 | 956 | 610 | 352 | 74 | 6693 |
| 1901-1902 | 5 | 4 | 88 | 320 | 820 | 1270 | 1233 | 1239 | 820 | 557 | 240 | 94 | 6700 |
| 1902-1903 | 8 | 12 | 149 | 305 | 542 | 1194 | 1271 | 1119 | 763 | 538 | 220 | 156 | 6374 |
| 1903-1904 | 4 | 26 | 102 | 360 | 857 | 1392 | 1466 | 1388 | 926 | 729 | 272 | 98 | 7620 |
| 1904-1905 | 21 | 18 | 84 | 272 | 665 | 1186 | 1454 | 1344 | 798 | 587 | 280 | 76 | 6885 |
| 1905-1906 | 4 | 0 | 31 | 383 | 734 | 1030 | 1097 | 1050 | 1076 | 432 | 235 | 54 | 6056 |
| 1906-1907 | 6 | 2 | 18 | 382 | 698 | 1000 | 1152 | 1082 | 694 | 756 | 425 | 100 | 6315 |
| 1907-1908 | 8 | 8 | 112 | 397 | 720 | 999 | 1128 | 1110 | 754 | 482 | 242 | 68 | 6024 |
| 1908-1909 | 1 | 2 | 58 | 329 | 646 | 1046 | 1124 | 912 | 902 | 599 | 302 | 82 | 6003 |
| 1909-1910 | 18 | 2 | 98 | 451 | 496 | 1344 | 1219 | 1136 | 523 | 430 | 361 | 99 | 6165 |
| 1910-1911 | 9 | 4 | 58 | 248 | 868 | 1198 | 1110 | 914 | 800 | 586 | 128 | 4 | 5898 |
| 1911-1913 | 10 | 10 | 28 | 367 | 887 | 920 | 1648 | 1256 | 1122 | 485 | 214 | 58 | 7023 |
| 1912-1913 | 9 | 18 | 88 | 296 | 666 | 981 | 1106 | 1124 | 925 | 492 | 257 | 76 | 6048 |
| 1913-1914 | 3 | 0 | 106 | 382 | 538 | 854 | 1008 | 1253 | 908 | 510 | 188 | 44 | 5794 |
| 1914-1915 | 0 | 2 | 60 | 208 | 620 | 1267 | 1268 | 854 | 938 | 332 | 347 | 103 | 5999 |
| 1915-1916 | 9 | 54 | 62 | 269 | 624 | 1112 | 1124 | 1159 | 944 | 508 | 212 | 105 | 6182 |
| 1916-1917 | 0 | 2 | 125 | 354 | 654 | 1208 | 1265 | 1268 | 814 | 607 | 410 | 102 | 6809 |
| 1917-1918 | 18 | 8 | 95 | 618 | 860 | 1320 | 1602 | 1058 | 705 | 632 | 143 | 49 | 6908 |
| 1918-1919 | 21 | 0 | 176 | 248 | 644 | 848 | 1056 | 966 | 821 | 510 | 330 | 6 | 5814 |
| 1919-1920 | 0 | 2 | 30 | 281 | 772 | 1350 | 1431 | 1139 | 770 | 660 | 314 | 76 | 6825 |
| 1920-1921 | 11 | 10 | 43 | 176 | 744 | 1008 | 1010 | 883 | 599 | 342 | 222 | 31 | 5078 |
| 1921-1922 | 0 | 3 | 18 | 319 | 728 | 1068 | 1246 | 997 | 796 | 490 | 88 | 19 | 5709 |
| 1922-1923 | 2 | 5 | 53 | 384 | 613 | 1089 | 1062 | 1196 | 992 | 554 | 332 | 52 | 6224 |
| 1923-1924 | 0 | 12 | 80 | 391 | 536 | 784 | 1403 | 1048 | 942 | 480 | 331 | 96 | 6203 |
| 1924-1925 | 30 | 9 | 150 | 175 | 710 | 1293 | 1211 | 930 | 784 | 394 | 346 | 28 | 6062 |
| 1925-1926 | 4 | 4 | 29 | 318 | 778 | 1230 | 1198 | 954 | 1076 | 692 | 151 | 90 | 6834 |
| 1926-1927 | 13 | 1 | 103 | 409 | 838 | 1192 | 1245 | 842 | 714 | 520 | 278 | 106 | 6260 |
| 1927-1928 | 0 | 25 | 74 | 238 | 654 | 1182 | 1234 | 1004 | 870 | 611 | 231 | 114 | 6245 |
| 1928-1929 | 6 | 4 | 178 | 386 | 685 | 1018 | 1470 | 1215 | 674 | 448 | 318 | 133 | 6429 |

| Season | July | Aug | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1929-1930 | 6 | 6 | 100 | 369 | 862 | 1127 | 1392 | 782 | 896 | 488 | 192 | 44 | 6264 |
| 1930-1931 | 16 | 1 | 63 | 438 | 679 | 1094 | 1024 | 824 | 934 | 472 | 322 | 52 | 5919 |
| 1931-1932 | 0 | 7 | 40 | 226 | 452 | 824 | 974 | 872 | 1082 | 560 | 214 | 8 | 5259 |
| 1932-1933 | 4 | 0 | 87 | 293 | 835 | 1125 | 876 | 1086 | 916 | 549 | 200 | 20 | 6090 |
| 1933-1934 | 0 | 2 | 39 | 384 | 814 | 1044 | 1013 | 1180 | 994 | 492 | 116 | 20 | 6100 |
| 1934-1935 | 0 | 20 | 92 | 287 | 577 | 1203 | 1220 | 989 | 734 | 633 | 403 | 74 | 6230 |
| 1935-1936 | 0 | 29 | 93 | 343 | 760 | 1234 | 1427 | 1443 | 786 | 642 | 140 | 91 | 6978 |
| 1936-1937 | 0 | 0 | 66 | 360 | 813 | 962 | 1182 | 1080 | 976 | 555 | 264 | 70 | 6347 |
| 1937-1938 | 4 | 0 | 120 | 444 | 826 | 1188 | 1230 | 852 | 827 | 457 | 249 | 26 | 6018 |
| 1938-1939 | 0 | 0 | 90 | 234 | 647 | 1112 | 1036 | 1048 | 838 | 806 | 194 | 30 | 5835 |
| 1939-1940 | 0 | 4 | 54 | 323 | 701 | 928 | 1510 | 1036 | 1015 | 813 | 381 | 52 | 6597 |
| 1940-1941 | 26 | 16 | 106 | 246 | 792 | 976 | 1144 | 1104 | 1020 | 394 | 169 | 54 | 6047 |
| 1941-1942 | 2 | 1 | 51 | 266 | 652 | 889 | 1222 | 1076 | 787 | 370 | 233 | 47 | 5596 |
| 1942-1943 | 1 | 13 | 193 | 369 | 723 | 1307 | 1312 | 1042 | 1019 | 583 | 301 | 45 | 6908 |
| 1943-1944 | 1 | 1 | 167 | 363 | 863 | 1163 | 1041 | 1044 | 1014 | 590 | 136 | 43 | 6428 |
| 1944-1945 | 3 | 11 | 77 | 373 | 670 | 1336 | 1415 | 1014 | 510 | 464 | 352 | 102 | 6327 |
| 1945-1946 | 4 | 6 | 128 | 424 | 760 | 1331 | 1187 | 1020 | 551 | 421 | 264 | 86 | 6196 |
| 1946-1947 | 0 | 21 | 82 | 224 | 678 | 1028 | 1126 | 1244 | 1025 | 549 | 359 | 93 | 6420 |
| 1947-1948 | 13 | 0 | 139 | 143 | 914 | 1088 | 1457 | 1123 | 895 | 386 | 308 | 53 | 6519 |
| 1948-1949 | 1 | 2 | 49 | 419 | 656 | 1074 | 1134 | 1039 | 854 | 515 | 184 | 16 | 5943 |
| 1949-1950 | 0 | 2 | 160 | 276 | 745 | 1032 | 1095 | 1078 | 987 | 699 | 174 | 41 | 6289 |
| 1950-1951 | 3 | 15 | 65 | 325 | 913 | 1403 | 1283 | 1052 | 915 | 547 | 165 | 44 | 6630 |
| 1951-1952 | 0 | 4 | 114 | 342 | 957 | 1196 | 1163 | 942 | 917 | 419 | 223 | 10 | 6287 |
| 1952-1953 | 0 | 6 | 85 | 502 | 860 | 1005 | 1098 | 924 | 749 | 544 | 187 | 15 | 5415 |
| 1953-1954 | 0 | 0 | 62 | 208 | 613 | 1022 | 1149 | 761 | 972 | 354 | 275 | 34 | 5399 |
| 1954 | 0 | 0 | 31 | 329 | 666 | 1020 | | | | | | | |

## REFERENCE NOTES

Unless otherwise indicated, dimensional units used in this bulletin are: temperature in degrees F., precipitation and snowfall in inches; wind movement in miles per hour; and relative humidity in percent.
Sky cover is expressed in a range of 0 for no clouds or obstructions to 10 for complete sky cover. The number of clear days is based on average cloudiness 0-3 tenths; partly cloudy days on 4-7 tenths, and cloudy days on 8-10 tenths. Degree days are based on a daily average of 65 F. Sleet and hail were included in snowfall totals, beginning with July 1948.
Heavy fog in the Means and Extremes Table also includes data referred to at various times in the past as "Dense" or "Thick". The upper visibility limit for heavy fog is 1/4 mile.
Below-zero temperatures are preceded by a minus sign.
The horizontal lines drawn on the Average Temperature, Total Precipitation, Monthly and Seasonal Degree Days, and Monthly and Seasonal Snowfall tables separate the data according to station location (see Station Location table).

* Less than one-half.
\- No record.
† Airport data.
+ Also on earlier dates, months, or years.
T Trace, an amount too small to measure.

Record mean values at the end of the Average Temperature and Total Precipitation tables are long-term means based on the period of record beginning in 1873 and 1871, respectively. Values have not been corrected for changes in instrument location listed in the Station Location Table.
Data for earlier years may be obtained by contacting the Weather Bureau office in the city for which this summary was issued.
[ Normals are for Midway Airport and are based on the 30-year period 1921-1950. Actual airport data were available for 22 of those years; data for former locations, but adjusted for the airport, were used to complete the period. Means and Extremes are for entire period of available official observatory records, regardless of station location. See Station Location table for dates of various former locations.

# STATION LOCATION

| Location | Occupied from | Occupied to | Airline distance and direction from previous location | Latitude | Longitude | Elevation above Sea level: Ground | Elevation above Sea level: Actual barometer elevation ($H_a$) | Elevation above Ground: Wind instruments | Elevation above Ground: Extreme thermometers | Elevation above Ground: Psychrometer | Elevation above Ground: Telepsychrometer | Elevation above Ground: Tipping bucket rain gage | Elevation above Ground: Weighing rain gage | Elevation above Ground: 8" rain gage | | | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CITY OFFICE | | | | | | | | | | | | | | | | | |
| 181 W. Washington St. (formerly 162 Washington St.) | | 10/15/70 | 10/8/71 | | 41°53.0' | 87°38.0' | 594 | 643 | 85 | 59 | 59 | | | | 67 | | Station abandoned Oct. 8, 1871, in Great Chicago Fire --all records lost. |
| 427 W. Randolph St. (Univ. Publ.) formerly 10 W Randolph, prior to 1909 | | 10/15/71 | 6/11/72 | 1600' WNW | 41°53.1' | 87°23.4' | 597 | 636 | 72 | 22 | 22 | | | | 43 | | Room rented Oct. 14, regular observations resumed Oct. 16. |
| 20 N. Wacker Dr. (formerly 80 S. Market prior to 1909 Ordinance) | | 6/11/72 | 6/8/73 | 800' SE | 41°53.0' | 87°38.2' | 599 | 640 | 108 | 73 | 73 | | | | 97 | | |
| Roanoke Bldg. (formerly Major Block), SE Corner Madison & LaSalle Sts. | | 6/8/73 | 1/1/87 | 1500' ESE | 41°52.9' | 87°37.9' | 599 | 657 | 153 | 70 | 70 | | | | 93 | | |
| Chicago Opera House, SE Corner Clark & Washington | | 1/1/87 | 2/1/90 | 500' SE | 41°53.0' | 87°37.9' | 595 | 715 | 153 | 147 | 147 | | | | 132 | | |
| Auditorium Tower, NE Corner Wabash & Congress | | 2/1/90 | 7/1/05 | 3000' SSE | 41°52.6' | 87°37.5' | 596 | 823 | 274 | 241 | 241 | | 238 | | 238 | | Automatic Recording Rain Gage installed 1897. |
| U.S. Court House, 219 S. Clark Street | | 7/1/05 | 1/1/26 | 1600' NW | 41°52.7' | 87°37.8' | 594 | 816 | 210 | 140 | 140 | | 133 | | 133 | | Continued to present date as branch office with climatological obs. Weighing rain gage installed 5/14/54. |
| Roosevelt Hall, 56th St. & University Ave. | | 1/1/26 | 7/1/42 | 6 1/2 mi SSE | 41°47.3' | 87°35.9' | 594 | 673 | 131 | 7 | 7 | | 3 | 3 | 3 | | Established as a branch office in 1915; first official obs. made 1/1/16; continued to present date with climatological observations. |
| AIRPORT OFFICE | | | | | | | | | | | | | | | | | |
| Natl Airtransport Hangar 5940 S. Cicero Avenue | | 2/13/28 | 11/3/32 | | 41°47.1' | 87°44.6' | 610 | 623 | 54 | 43 | 43 | | | | 41 | | |
| Municipal Building, 6200 S. Cicero Avenue | | 11/3/32 | | 5/16 mi S | 41°46.6' | 87°44.6' | 610 | 614 | 36 | 5 | 5 | | 18 | 18 | 18 | | T.B. & weighing rain gages installed 7/1/42. Extreme thermometers & psychrometer 21' 11/3/32 to 5/15/41. Became official Chicago observatory 7/1/42. |

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U. S. DEPARTMENT OF COMMERCE
SINCLAIR WEEKS, Secretary
WEATHER BUREAU
F. W. REICHELDERFER, Chief

# LOCAL CLIMATOLOGICAL DATA

## WITH COMPARATIVE DATA

1952

JOLIET, ILLINOIS

KANSAS CITY: 1953

LATITUDE 41° 30' N
LONGITUDE 88° 10' W
ELEVATION (ground) 584 feet

# METEOROLOGICAL DATA FOR THE CURRENT YEAR

JOLIET, ILLINOIS
MUNICIPAL AIRPORT
1952

| Month | Temperature: Averages: Daily maximum | Daily minimum | Monthly | Extremes: Highest | Date | Lowest | Date | Degree days | Precipitation: Total | Greatest in 24 hrs | Date | Snow, Sleet, Hail: Total | Greatest in 24 hrs | Date | Relative humidity: 1:30 A.M. CST | 7:30 A.M. CST | 1:30 P.M. CST | 7:30 P.M. CST | Wind: Average hourly speed | Prevailing direction | Fastest mile: Speed | Direction | Date | Percent of possible sunshine | Average sky cover sunrise to sunset | Number of days: Sunrise to sunset: Clear | Partly cloudy | Cloudy | Precipitation .01 inch or more | Snow, Sleet, Hail 1.0 or more | Thunderstorms | Heavy fog | Max. temp.: 90° and above | 32° and below | Min. temp.: 32° and below | Zero and below |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN | 35.1 | 16.7 | 25.9 | 59 | 17 | -4 | 24 | 1207 | 2.13 | 0.96 | 19 | 5.7 | 3.1 | 4 | 86 | 87 | 75 | 82 | 13.5 | SW | | | | | 7.8 | 4 | 5 | 22 | 11 | 2 | 1 | 5 | 0 | 13 | 30 | 2 |
| FEB | 40.0 | 23.6 | 31.8 | 53 | 10 | 13 | 22 | 961 | 0.58 | 0.44 | 3-4 | 1.1 | 0.9 | 14 | 84 | 88 | 66 | 75 | 11.5 | NNE | | | | | 7.5 | 5 | 7 | 17 | 6 | 0 | 0 | 1 | 0 | 3 | 29 | 0 |
| MAR | 43.1 | 25.5 | 34.3 | 64 | 31 | 3 | 5 | 943 | 5.26 | 1.77 | 18 | 6.9 | 3.4 | 8 | 83 | 87 | 67 | 76 | 12.3 | N | | | | | 6.5 | 9 | 7 | 15 | 15 | 3 | 1 | 3 | 0 | 4 | 26 | 0 |
| APR | 63.1 | 37.3 | 50.2 | 85 | 30 | 23 | 7 | 439 | 3.73 | 2.00 | 12-13 | 0.8 | 0.8 | 4-5 | 77 | 79 | 48 | 56 | 12.6 | N | | | | | 5.4 | 12 | 5 | 13 | 11 | 0 | 0 | 0 | 0 | 0 | 9 | 0 |
| MAY | 70.2 | 46.4 | 58.3 | 94 | 5 | 36 | 18 | 234 | 3.00 | 0.62 | 21-22 | T | T | 11 | 81 | 79 | 55 | 64 | 11.5 | N | | | | | 6.6 | 9 | 5 | 17 | 16 | 0 | 0 | 4 | 1 | 2 | 0 | 0 | 0 |
| JUNE | 85.5 | 60.9 | 73.2 | 98 | 28 | 47 | 1 | 13 | 7.57 | 2.60 | 13 | 0.0 | 0.0 | | 85 | 81 | 57 | 63 | 8.8 | SSW | | | | | 5.0 | 10 | 12 | 8 | 13 | 0 | 0 | 12 | 1 | 11 | 0 | 0 | 0 |
| JULY | 87.5 | 62.6 | 75.1 | 95 | 22 | 49 | 31 | 0 | 3.17 | 1.05 | 7-8 | 0.0 | 0.0 | | 87 | 86 | 54 | 61 | 7.4 | SW | | | | | 4.7 | 13 | 10 | 8 | 13 | 0 | 0 | 7 | 2 | 14 | 0 | 0 | 0 |
| AUG | 80.3 | 58.1 | 70.7 | 93 | 28 | 46 | 24 | 12 | 3.07 | 1.05 | 14 | 0.0 | 0.0 | | 90 | 90 | 54 | 68 | 5.3 | S | | | | | 5.8 | 8 | 14 | 9 | 8 | 0 | 0 | 6 | 3 | 9 | 0 | 0 | 0 |
| SEPT | 77.8 | 47.7 | 62.8 | 92 | 13+ | 35 | 27 | 121 | 1.55 | 1.05 | 1 | T | T | 22+ | [illegible] | 91 | 48 | 65 | 5.8 | S | | | | | 3.6 | 15 | 11 | 4 | 6 | 0 | 0 | 3 | 1 | 3 | 0 | 0 | 0 |
| OCT | 60.7 | 30.5 | 45.6 | 87 | 1 | 15 | 29 | 601 | 0.68 | 0.68 | 14 | T | T | 28+ | 81 | 76 | 33 | 48 | 8.1 | WSW | | | | | 3.8 | 19 | 4 | 8 | 1 | 0 | 0 | 1 | 0 | 1 | 21 | 0 |
| NOV | 52.3 | 29.1 | 40.7 | 75 | 17 | 10 | 29+ | 723 | 2.41 | 1.18 | 17-18 | T | T | 29+ | 78 | 81 | 52 | 63 | 10.2 | WSW | | | | | 5.4 | 10 | 8 | 12 | 6 | 0 | 0 | 3 | 0 | 2 | 20 | 0 |
| DEC | 31.8 | 24.4 | 30.6 | 58 | 8 | 12 | 27 | 1059 | 2.41 | 1.23 | 19-20 | 9.1 | 2.3 | 1-2 | 90 | 90 | 82 | 88 | 9.1 | WSW | | | | | 7.6 | 7 | 2 | 22 | 11 | 1 | 0 | 5 | 0 | 7 | 25 | 0 |
| Year | 61.3 | 38.6 | 50.0 | 98 | JUNE 28 | -4 | JAN. 24 | 6313 | 35.56 | 2.60 | JUNE 13 | 17.6 | 3.4 | MAR. 8 | 83 | 85 | 58 | 67 | 9.7 | WSW | | | | | 5.8 | 121 | 90 | 155 | 115 | 6 | 37 | 23 | 37 | 29 | 160 | 2 |

# MEANS AND EXTREMES FOR PERIOD OF RECORD

| Month | Temperature: Means: Daily maximum | Daily minimum | Monthly | Extremes: Record highest | Year | Record lowest | Year | Mean degree days | Precipitation: Mean total | Maximum monthly | Year | Minimum monthly | Year | Maximum in 24 hrs | Year | Snow, Sleet, Hail: Mean total | Maximum monthly | Year | Maximum in 24 hrs | Year | Relative humidity | Wind: Mean hourly speed | Prevailing direction | Fastest mile: Speed | Direction | Year | Pct. of poss. sunshine | Average sky cover sunrise to sunset | Mean number of days: Sunrise to sunset: Clear | Partly cloudy | Cloudy | Precipitation .01 inch or more | Snow, Sleet, Hail 1.0" or more | Thunderstorms | Heavy fog | Max. temp.: 90° | 32° | Min. temp.: 32° | Zero |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (a) | 11 | 11 | 11 | 11 | | 11 | | 11 | 11 | 11 | | 11 | | 11 | | 11 | 11 | | 11 | | | | | | | | | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| J | 33.0 | 15.5 | 24.2 | 67 | 1950 | -23 | 1943 | 1262 | 1.98 | 3.92 | 1950 | 0.72 | 1944 | 1.42 | 1951 | 5.7 | 14.3 | 1943 | 6.7 | 1947 | | | | | | | | | 6 | 8 | 17 | 9 | 2 | 1 | 3 | 0 | 14 | 29 | 4 |
| F | 34.5 | 17.6 | 26.1 | 60 | 1944 | -20 | 1951 | 1095 | 1.67 | 3.21 | 1942 | 0.25 | 1947 | 1.91 | 1942 | 5.6 | 17.6 | 1950 | 5.8 | 1950 | | | | | | | | | 5 | 8 | 15 | 8 | 2 | 1 | 3 | 0 | 12 | 27 | 3 |
| M | 46.1 | 27.1 | 36.7 | 80 | 1945 | -18 | 1943 | 877 | 3.49 | 6.12 | 1944 | 1.52 | 1950 | 3.14 | 1944 | 3.6 | 5.6 | 1952 | 3.5 | 1951 | | | | | | | | | 6 | 9 | 16 | 12 | 2 | 2 | 2 | 0 | 4 | 22 | 1 |
| A | 59.5 | 36.6 | 48.1 | 89 | 1942 | 20 | 1943 | 517 | 4.09 | 9.23 | 1947 | 0.61 | 1946 | 4.96 | 1947 | 0.3 | 2.0 | 1951 | 2.0 | 1951 | | | | | | | | | 6 | 9 | 14 | 11 | * | 3 | 1 | 0 | 0 | 10 | 0 |
| M | 70.0 | 46.3 | 58.2 | 94 | 1952+ | 26 | 1945 | 249 | 3.93 | 6.75 | 1943 | 1.52 | 1942 | 2.47 | 1951 | T | T | 1952+ | T | 1952+ | | | | | | | | | 5 | 11 | 15 | 13 | 0 | 5 | 1 | 0 | 1 | 1 | 0 |
| J | 80.9 | 57.3 | 69.1 | 99 | 1944 | 34 | 1945 | 51 | 3.98 | 7.57 | 1952 | 2.08 | 1942 | 2.60 | 1952 | 0.0 | 0.0 | | 0.0 | | | | | | | | | | 4 | 13 | 13 | 10 | 0 | 8 | 2 | 0 | 0 | 0 | 0 |
| J | 86.0 | 60.5 | 73.3 | 100 | 1947+ | 41 | 1945 | 4 | 3.41 | 5.58 | 1950 | 1.25 | 1946 | 4.10 | 1950 | 0.0 | 0.0 | | 0.0 | | | | | | | | | | 9 | 16 | 7 | 7 | 0 | 5 | 1 | 0 | 0 | 0 | 0 |
| A | 83.9 | 59.2 | 71.6 | 101 | 1947 | 42 | 1950 | 13 | 3.76 | 6.85 | 1942 | 1.02 | 1950 | 3.20 | 1946 | 0.0 | 0.0 | | 0.0 | | | | | | | | | | 9 | 14 | 9 | 8 | 0 | 7 | 3 | 0 | 0 | 0 | 0 |
| S | 75.0 | 50.3 | 62.7 | 93 | 1948+ | 26 | 1942 | 141 | 3.71 | 9.19 | 1942 | 0.81 | 1949 | 5.32 | 1942 | 0.1 | 1.0 | 1942 | 1.0 | 1942 | | | | | | | | | 10 | 11 | 9 | 7 | 0 | 4 | 2 | 0 | 0 | 1 | 0 |
| O | 65.9 | 40.4 | 53.2 | 88 | 1951+ | 15 | 1952 | 380 | 1.63 | 3.27 | 1951 | 0.67 | 1948 | 1.49 | 1947 | T | T | 1952+ | T | 1952+ | | | | | | | | | 12 | 9 | 10 | 6 | 0 | 1 | 2 | 0 | 0 | 0 | 0 |
| N | 47.0 | 28.9 | 37.9 | 81 | 1950 | -13 | 1947 | 807 | 2.23 | 4.28 | 1942 | 0.75 | 1943 | 1.60 | 1946 | 2.5 | 8.9 | 1951 | 8.0 | 1951 | | | | | | | | | 5 | 8 | 16 | 9 | 1 | 1 | 1 | 0 | 2 | 20 | 0 |
| D | 34.2 | 16.7 | 25.5 | 64 | 1946 | -20 | 1951 | 1220 | 2.38 | 6.37 | 1949 | 0.34 | 1943 | 2.47 | 1949 | 7.2 | 21.9 | 1951 | 7.3 | 1948 | | | | | | | | | 6 | 8 | 16 | 10 | 2 | 0 | 3 | 0 | 12 | 26 | * |
| Year | 59.7 | 38.0 | 48.9 | 101 | AUG. 1947 | -20 | DEC. 1951+ | 6612 | 36.26 | 9.23 | APR. 1947 | 0.25 | FEB. 1947 | 5.32 | SEPT. 1942 | 25.0 | 21.9 | DEC. 1951 | 8.0 | NOV. 1951 | | | | | | | | | 83 | 124 | 157 | 110 | 9 | 40 | 24 | 26 | 44 | 143 | 12 |

(a) Length of record, years.

**REFERENCE NOTES**

Unless otherwise indicated, dimensional units used in this bulletin are: temperature in degrees F.; precipitation and snowfall in inches; wind movement in miles per hour; and relative humidity in percent.
Sky cover is expressed in a range of 0 for no clouds or obscurations to 10 for complete sky cover. Degree days are based on daily average temperatures of 65°F. Sleet and hail were included in snowfall totals beginning with July 1948.
Heavy fog in the Means and Extremes Table also includes data referred to at various times in the past as "Dense" or "Thick." The upper visibility limit for heavy fog is ¼ mile.
Below-zero temperatures are preceded by a minus sign.
The horizontal lines drawn on the Average Temperature, Total Precipitation, Monthly and Seasonal Degree Days, and Monthly and Seasonal Snowfall tables separate the data according to station location (see Station Location table).

* Less than one-half
\- No record.
M/A Equal to, or less than
Equal to, or greater than
+ Also on earlier dates, months, or years.
T Trace, an amount too small to measure.

## AVERAGE TEMPERATURE

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Ann'l |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1941 | | | | | | | 73.6 | 72.2 | 67.6 | 54.6 | 41.4 | 24.0 | |
| 1942 | 33.7 | 24.6 | 39.4 | 53.2 | 59.8 | 70.5 | 74.6 | 70.8 | 62.1 | 52.2 | 40.3 | 21.9 | 49.4 |
| 1943 | 21.6 | 27.4 | 31.6 | 45.2 | 56.4 | 71.9 | 74.2 | 73.1 | 59.4 | 51.2 | 34.4 | 25.6 | 47.7 |
| 1944 | 29.6 | 26.6 | 31.7 | 45.3 | 64.2 | 71.9 | 73.2 | 72.8 | 64.8 | 51.6 | 41.9 | 20.2 | 49.5 |
| 1945 | 17.3 | 27.2 | 47.4 | 48.0 | 53.4 | 64.8 | 71.2 | 70.6 | 62.4 | 49.5 | 38.3 | 20.1 | 47.6 |
| 1946 | 25.8 | 27.6 | 46.7 | 50.2 | 58.2 | 67.6 | 74.2 | 68.4 | 63.6 | 56.7 | 41.4 | 31.2 | 50.8 |
| 1947 | 27.3 | 20.1 | 31.8 | 46.8 | 54.2 | 65.6 | 70.2 | 79.4 | 65.4 | 60.9 | 33.3 | 29.6 | 48.7 |
| 1948 | 17.0 | 24.7 | 35.5 | 53.0 | 55.6 | 67.8 | 74.6 | 71.3 | 66.2 | 50.2 | 42.5 | 29.3 | 48.9 |
| 1949 | 27.2 | 26.0 | 37.0 | 47.6 | 61.0 | 73.2 | 76.6 | 72.9 | 58.4 | 46.0 | 39.6 | 30.8 | 50.5 |
| 1950 | 28.7 | 24.8 | 32.4 | 41.4 | 60.1 | 67.7 | 70.9 | 68.7 | 63.3 | 56.9 | 33.3 | 16.7 | 47.1 |
| 1951 | 22.5 | 26.0 | 34.8 | 46.9 | 61.4 | 66.1 | 71.2 | 69.4 | 61.1 | 54.1 | 31.4 | 33.9 | 47.7 |
| 1952 | 25.9 | 21.8 | 34.3 | 50.3 | 58.3 | 73.2 | 75.1 | 70.7 | 63.8 | 45.6 | 40.7 | 30.6 | 50.0 |
| Nor. | 23.8 | 26.3 | 36.3 | 47.7 | 58.8 | 69.0 | 73.7 | 71.3 | 64.0 | 52.8 | 38.4 | 26.6 | 49.1 |

## TOTAL PRECIPITATION

JOLIET, ILLINOIS
MUNICIPAL AIRPORT
1952

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1941 | | | | | | | 2.22 | 1.16 | 6.87 | 10.08 | 1.76 | 1.10 | |
| 1942 | 1.49 | 3.21 | 2.72 | 2.14 | 1.52 | 2.08 | 4.05 | 6.85 | 9.19 | 1.32 | 4.28 | 2.75 | 41.60 |
| 1943 | 1.67 | 1.26 | 3.13 | 4.43 | 6.75 | 2.85 | 4.17 | 5.32 | 1.11 | 1.63 | .75 | .34 | 33.16 |
| 1944 | .72 | 1.56 | 6.12 | 5.47 | 3.05 | 2.49 | 1.80 | 3.32 | 3.15 | 1.59 | .64 | .27 | 31.08 |
| 1945 | 1.00 | 1.07 | 2.79 | 5.99 | 6.97 | 3.90 | 2.85 | 4.84 | 7.08 | .99 | 1.98 | 1.43 | 39.16 |
| 1946 | 1.88 | .89 | 3.46 | .61 | 4.19 | 3.93 | 1.25 | 4.95 | 2.71 | 3.26 | 3.46 | 2.73 | 32.42 |
| 1947 | 2.05 | .25 | 2.89 | 9.23 | 4.64 | 5.07 | 2.72 | 4.44 | 3.21 | 1.94 | 2.37 | 1.51 | 39.92 |
| 1948 | 1.14 | 1.80 | 4.49 | 1.35 | 4.82 | 2.42 | 3.67 | 1.57 | 3.00 | .67 | 2.58 | 3.36 | 30.87 |
| 1949 | 3.59 | 2.43 | 3.30 | 1.40 | 3.47 | 3.34 | 3.28 | 3.27 | 0.81 | 2.53 | .87 | 6.37 | 34.86 |
| 1950 | 3.92 | 2.84 | 1.52 | 7.13 | 1.57 | 7.43 | 5.56 | 1.02 | 2.79 | .93 | 1.44 | 1.80 | 37.97 |
| 1951 | 2.72 | 2.52 | 2.44 | 3.54 | 4.19 | 3.54 | 5.44 | 5.43 | 4.23 | 3.73 | 3.53 | 2.48 | 43.01 |
| 1952 | 2.13 | 0.56 | 5.26 | 3.73 | 3.30 | 7.57 | 3.17 | 3.07 | 1.55 | 0.68 | 2.41 | 2.41 | 35.56 |
| Nor. | 1.67 | 1.51 | 2.62 | 3.33 | 3.55 | 4.14 | 2.54 | 3.61 | 3.70 | 2.02 | 2.43 | 1.96 | 34.25 |

## MONTHLY AND SEASONAL SNOWFALL

| Season | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1941-1942 | 0 | .0 | .0 | .0 | 3.3 | 1.3 | 3.0 | 2.6 | 2.1 | T | .0 | .0 | 12.3 |
| 1942-1943 | .0 | .0 | 1.0 | T | 3.0 | 3.3 | 14.3 | 1.2 | 4.3 | T | .0 | .0 | 27.0 |
| 1943-1944 | .0 | .0 | .0 | T | 3.0 | 0.1 | T | 11.0 | 4.0 | T | T | .0 | 17.1 |
| 1944-1945 | .0 | .0 | .0 | .0 | 1.6 | 10.8 | 11.6 | 4.4 | 1.5 | T | T | .0 | 29.9 |
| 1945-1946 | .0 | .0 | .0 | .0 | 0.8 | 5.8 | 3.8 | 5.4 | T | .0 | .0 | .0 | 15.8 |
| 1946-1947 | .0 | .0 | .0 | .0 | .0 | 6.0 | 8.0 | 3.0 | 6.0 | 0.6 | .0 | .0 | 22.6 |
| 1947-1948 | .0 | .0 | .0 | .0 | 5.7 | 2.3 | 5.1 | 6.6 | 5.3 | T | .0 | .0 | 25.2 |
| 1948-1949 | .0 | .0 | .0 | .0 | T | 4.1 | 1.3 | 5.0 | T | T | .0 | .0 | 14.4 |
| 1949-1950 | .0 | .0 | .0 | .0 | 1.6 | 3.6 | 2.0 | 17.8 | 3.4 | 0.3 | T | .0 | 29.1 |
| 1950-1951 | .0 | .0 | .0 | .0 | 2.3 | 15.0 | 7.4 | 4.0 | 6.1 | 2.8 | .0 | .0 | 37.6 |

| Season | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1951-1952 | .0 | .0 | .0 | .0 | 8.9 | 21.9 | 5.7 | 1.1 | 6.9 | 0.8 | T | .0 | 45.3 |
| 1952 | .0 | .0 | T | T | T | 2.1 | | | | | | | |

## MONTHLY AND SEASONAL DEGREE DAYS

| Season | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1941-1942 | 5 | 9 | 78 | 335 | 711 | 985 | 1280 | 1122 | 796 | 375 | 229 | 41 | 5944 |
| 1942-1943 | 8 | 13 | 178 | 396 | 739 | 1318 | 1334 | 1049 | 1036 | 594 | 302 | 44 | 6997 |
| 1943-1944 | 5 | 5 | 313 | 429 | 916 | 1207 | 1102 | 1092 | 1028 | 593 | 141 | 62 | 6770 |
| 1944-1945 | 5 | 17 | 93 | 432 | 894 | 1384 | 1481 | 1083 | 526 | 487 | 269 | 75 | 6638 |
| 1945-1946 | 18 | 21 | 154 | 480 | 789 | 1389 | 1220 | 1045 | 569 | 456 | 285 | 97 | 6823 |
| 1946-1947 | 0 | 33 | 106 | 270 | 898 | 1043 | 1174 | 1259 | 1029 | 545 | 342 | 91 | 6590 |
| 1947-1948 | 15 | 0 | 152 | 167 | 953 | 1092 | 1487 | 1161 | 915 | 392 | 312 | 43 | 6680 |
| 1948-1949 | 0 | 9 | 73 | 463 | 873 | 1108 | 1172 | 1092 | 964 | 517 | 185 | 19 | 6175 |
| 1949-1950 | 0 | 5 | 214 | 313 | 760 | 1052 | 1121 | 1118 | 1003 | 701 | 179 | 51 | 6517 |
| 1950-1951 | 4 | 28 | 98 | 268 | 944 | 1480 | 1309 | 1085 | 931 | 552 | 165 | 49 | 6921 |

| Season | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1951-1952 | 3 | 10 | 152 | 367 | 1000 | 1268 | 1207 | 961 | 943 | 639 | 234 | 13 | 6597 |
| 1952 | 0 | 12 | 121 | 601 | 723 | 1059 | | | | | | | |

NARRATIVE CLIMATOLOGICAL SUMMARY

Joliet is located in the northeastern portion of Illinois in Will County. Joliet is 35 miles southeast of Lake Michigan, which at times has some moderating effect on the climate of Joliet. The July normal temperature is 74.0° and the January normal is 24.3°. The record highest temperature was 109° and the record lowest temperature was -25°. The annual normal precipitation is 33.65 inches. February is normally the driest month during the year and June normally receives the most rain. Most of the rain occurs during the growing season in the form of thundershowers. The growing season is normally 192 days. May 3rd is the average date of the last killing frost in the spring and October 12th is the average date of the first killing frost in the fall. Corn, oats, and soy beans are the main crops grown in Will County. There has been no total failure of any of these crops in more than twenty years. Extended dry periods are rare during the growing season.

REFERENCE NOTES (cont.)

Beginning with this issue new normals are being used for all first order stations. These are generally based on the 30-year record 1921 through 1950. Where 30 years of record are not available, normals are based on records of from 10 to 30 years adjusted to the 30-year period ending with 1950.

# STATION LOCATION

JOLIET, ILLINOIS
MUNICIPAL AIRPORT
1953

| Location | Occupied from | Occupied to | Airline distance and direction from previous location | Latitude | Longitude | Elevation above Sea level: Ground | Elevation above Sea level: Actual barometer elevation ($H_a$) | Elevation above Ground: Wind instruments | Elevation above Ground: Extreme thermometers | Elevation above Ground: Psychrometer | Elevation above Ground: Teleperybrometer | Elevation above Ground: Tipping bucket rain gage | Elevation above Ground: Weighing rain gage | Elevation above Ground: 8" rain gage | Elevation above Ground: Pyrheliometer | Elevation above Ground: | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1st Floor of Administration Bldg., Joliet Mun. Airport, 4 mi W of P.O. | 10/28/37 | 2/8/39 | | 41°30'N | 88°10'W | 584 | 588 | 44 | | 4 | | | | | | | |
| Second Floor of same building | 2/8/39 | | | 41°30'N | 88°10'W | 584 | 594 | 44 | 4 | 4 | | | | 2 | 6 | | Radiosonde observations started 7/1/39 - one a day.<br>Twice daily radiosonde observations started 6/1/41.<br>Rain gage installed 6/1/41.<br>Extreme thermometers installed 6/1/41.<br>Pibal observations started 5/1/42.<br>Pyrheliometer installed 6/10/49. |

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U. S. DEPARTMENT OF COMMERCE
WEATHER BUREAU

# LOCAL CLIMATOLOGICAL DATA

## WITH COMPARATIVE DATA

1954

PEORIA, ILLINOIS

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NARRATIVE CLIMATOLOGICAL SUMMARY

This area experiences typical continental temperate climate with its changeable weather and wide range of extremes in temperatures.

The airfield is situated on a rather level table land surrounded by rolling countryside, well drained by an occasional ravine. The station is set back a mile from the rim of the river valley and is almost 200 feet above the river pool. Exposures of all instruments are good.

The annual average temperature of 51 degrees ranges from 25 degrees during January to 76 degrees during July. January averages 13 days with maximum temperatures 32 degrees or lower, 26 days with minimum readings 32 degrees or lower, and 4 days with temperatures zero or below. In January and February of 1936, 26 zero days occurred in a 31-day period. On the other hand, July usually has 11 days with temperatures 90 degrees or higher and 1 day with 100 degrees or higher. July of 1936 experienced 17 days of 100 degrees or higher temperatures, with the absolute highest of record, 113 degrees, occurring on July 15th. The lowest ever recorded, -27 degrees, occurred in January of 1884. June and September are usually the most pleasant months with daily temperatures ranging from 60 to 83 degrees in June and 56 to 78 degrees in September. Then the latter part of October or first of November, "Indian Summer" is often experienced with an extended period of warm dry weather. The seasonal heat requirements average approximately 6000 degree days, reaching 1240 degree days during January while no degree days occur in July.

The average date of last killing frost in the spring is April 15th and the first killing frost in the fall is October 28th, giving an average growing season of 195 days. The longest growing season of record was 214 days in 1931, while the shortest was 151 days in 1928. The earliest date of any killing frost is the fall was on September 26, 1928, and the latest in the spring occurred on May 9, 1945.

The annual total precipitation averages 35.18 inches, ranging from 23.18 inches during 1910 to 53.28 inches during 1858. May averages the wettest with 3.94 inches while February, normally, receives only 1.91 inches. However, during September of 1911, 12.30 inches was recorded and during October of 1897 only 0.04 of an inch was measured. The maximum amount of rainfall occurring in any 24-hour period was 5.52 inches in May of 1927. Maximum amounts recorded for shorter periods are: for 5 minutes, 0.73 of an inch; for 15 minutes, 1.26 inches; for 30 minutes, 2.10 inches; and for 60 minutes, 2.60 inches. Average annual number of days with precipitation 0.01 inch or more totals 113; 0.25 inch or more, 43; and 1.00 inch or more, 8.

Total snow/all averages 21.5 inches yearly with 1926 receiving 45.7 inches, while 1928 had only 6.0 inches. January usually receives the greatest total with an average of 5.9 inches. The earliest snow of record occurred on September 25, 1942, when 1.0 fell, while traces have occurred as late in the spring as May 9th. The heaviest single storm, occurring on February 27-28, 1900, gave 18.0 inches of snow.

Sunshine averages 60% of the possible, ranging from 45% in December to 76% in July. Cloudy days total 117 for the year. Humidity readings at 6:30 a.m., 12:30 p.m. and 6:30 p.m. average 83, 61 and 67%, respectively. The prevailing wind direction is south and yearly velocities averaging 7.7 m.p.h. March is usually the windy month with an average of 9.7 m.p.h. The highest wind velocity ever recorded was 75 m.p.h. on July 3, 1953. Total number of days with thunderstorms is 48 for the average year, with maximum frequency of 10 during June and very few if any during December and January. Occurrences of heavy fog are rather unimportant since the 45 years of record show an average of only 12 per year, usually occurring during the winter and early spring.

LATITUDE 40° 40' N
LONGITUDE 89° 41' W
ELEVATION (ground) 654 FEET

# METEOROLOGICAL DATA FOR THE CURRENT YEAR

PEORIA, ILLINOIS
GREATER PEORIA AIRPORT
1954

| Month | Temperature: Averages: Daily maximum | Daily minimum | Monthly | Extremes: Highest | Date | Lowest | Date | Degree days | Precipitation: Total | Greatest in 24 hrs. | Date | Snow, Sleet, Hail: Total | Greatest in 24 hrs. | Date | Relative humidity: 6:30 A.M. CST | 12:30 P.M. CST | 6:30 P.M. CST | Wind: Average hourly speed | Prevailing direction | Fastest mile: Speed | Direction | Date | Percent of possible sunshine | Average sky cover sunrise to sunset | Number of days: Sunrise to sunset: Clear | Partly cloudy | Cloudy | Precipitation .01 inch or more | Snow, Sleet, Hail 1.0 inch or more | Thunderstorms | Heavy fog | Temperatures: Maximum: 90° and above | 32° and below | Minimum: 32° and below | Zero and below |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN | 35.7 | 19.0 | 27.4 | 53 | 20 | - 4 | 17 | 1159 | 0.89 | 0.57 | 26 | 0.1 | 0.1 | 17 | 80 | 69 | 73 | 11.9 | NW | 32 | S | 13+ | 41 | 7.3 | 4 | 10 | 17 | 4 | 0 | 2 | 2 | 0 | 12 | 31 | 2 |
| FEB | 46.6 | 28.3 | 37.5 | 70 | 15 | 9 | 12 | 786 | 2.68 | 1.92 | 15-16 | 2.8 | 1.8 | 27 | 80 | 63 | 66 | 13.6 | NW | 35 | NE | 16 | 51 | 6.9 | 6 | 6 | 16 | 7 | 2 | 1 | 0 | 0 | 2 | 20 | 0 |
| MAR | 44.3 | 26.5 | 35.4 | 66 | 25 | 4 | 5 | 910 | 3.41 | 1.88 | 24-25 | 4.3 | 4.3 | 2 | 77 | 59 | 61 | 13.2 | NW | 52 | SW | 25 | 57 | 6.1 | 10 | 5 | 16 | 10 | 1 | 2 | 0 | 0 | 4 | 22 | 0 |
| APR | 66.6 | 44.5 | 55.6 | 85 | 26 | 22 | 3+ | 304 | 5.47 | 1.93 | 6 | T | T | 6 | 81 | 56 | 59 | 12.8 | SW | 43 | S | 30 | 60 | 6.9 | 5 | 11 | 14 | 13 | 0 | 10 | 0 | 0 | 0 | 4 | 0 |
| MAY | 68.1 | 46.8 | 57.5 | 85 | 31 | 32 | 4 | 247 | 2.59 | 1.08 | 28 | T | T | 31+ | 73 | 49 | 51 | 11.4 | NW | 55 | SW | 31 | 64 | 6.0 | 6 | 13 | 12 | 6 | 0 | 8 | 0 | 0 | 0 | 1 | 0 |
| JUNE | 80.7 | 65.3 | 73.5 | 97 | 26+ | 48 | 4 | 31 | 6.38 | 1.77 | 29 | T | T | 7 | 80 | 57 | 60 | 9.6 | S | 47 | SW | 7 | 76 | 5.6 | 7 | 16 | 7 | 9 | 0 | 8 | 0 | 14 | 0 | 0 | 0 |
| JULY | 88.6 | 67.0 | 77.8 | 100 | 18 | 53 | 8 | 0 | 3.82 | 1.60 | 20-21 | 0 | 0 | | 78 | 52 | 55 | 8.6 | NE | 47 | W | 20 | 78 | 5.1 | 11 | 10 | 10 | 6 | 0 | 6 | 1 | 14 | 0 | 0 | 0 |
| AUG | 83.1 | 64.5 | 73.8 | 93 | 23+ | 54 | 31 | 0 | 8.56 | 3.26 | 25-26 | T | T | 25+ | 91 | 64 | 70 | 7.5 | SW | 43 | NW | 4 | 64 | 6.2 | 9 | 9 | 13 | 15 | 0 | 12 | 3 | 6 | 0 | 0 | 0 |
| SEPT | 81.0 | 57.1 | 69.1 | 96 | 5 | 42 | 22 | 36 | 0.93 | 0.60 | 28-29 | 0 | 0 | | 83 | 48 | 60 | 9.4 | SW | 37 | NW | 21 | 75 | 4.6 | 13 | 9 | 8 | 6 | 0 | 4 | 0 | 6 | 0 | 0 | 0 |
| OCT | 64.6 | 46.1 | 55.4 | 89 | 3 | 27 | 31 | 344 | 3.27 | 1.28 | 10-11 | T | T | 30+ | 88 | 59 | 70 | 10.5 | SE | 40 | S | 14 | 50 | 5.2 | 7 | 11 | 13 | 9 | 0 | 5 | 1 | 6 | 0 | 0 | 0 |
| NOV | 50.1 | 33.4 | 41.8 | 71 | 13 | 22 | 3 | 689 | 2.19 | 1.48 | 18-19 | 4.0 | 2.8 | 1 | 86 | 65 | 70 | 10.8 | SW | 36 | NW | 24 | 41 | 6.7 | 8 | 5 | 17 | 11 | 1 | 1 | 2 | 0 | 0 | 2 | 0 |
| DEC | 37.2 | 24.9 | 31.1 | 51 | 26 | 13 | 30 | 1046 | 1.80 | 0.72 | 26-27 | 8.2 | 8.1 | 29 | 86 | 74 | 77 | 11.2 | NW | 43 | NE | 29 | 34 | 7.3 | 6 | 6 | 19 | 10 | 1 | 1 | 0 | 0 | 0 | 15 | 0 |
| Year | 62.8 | 43.8 | 53.1 | 100 | JULY 18 | - 4 | JAN 17 | 5532 | 41.96 | 3.26 | AUG 25-26 | 19.4 | 5.1 | DEC 29 | 82 | 60 | 64 | 10.9 | NW | 55 | SW | MAY 31 | 60 | 6.4 | 92 | 111 | 162 | 106 | 5 | 58 | 9 | 40 | 26 | 124 | 2 |

# NORMALS, MEANS, AND EXTREMES

| Month | Temperature: Normal: Daily maximum | Daily minimum | Monthly | Extremes: Record highest | Year | Record lowest | Year | Normal degree days | Precipitation: Normal total | Maximum monthly | Year | Minimum monthly | Year | Maximum in 24 hrs | Year | Snow, Sleet, Hail: Mean total | Maximum monthly | Year | Maximum in 24 hrs | Year | Relative humidity: 12:30 A.M. CST | 6:30 A.M. CST | 12:30 P.M. CST | 6:30 P.M. CST | Wind: Mean hourly speed | Prevailing direction | Fastest mile: Speed | Direction | Year | Percent of possible sunshine | Mean sky cover sunrise to sunset | Mean number of days: Sunrise to sunset: Clear | Partly cloudy | Cloudy | Precipitation .01 inch or more | Snow, Sleet, Hail 1.0 inch or more | Thunderstorms | Heavy fog | Temperatures: Max 90° and above | Max 32° and below | Min 32° and below | Min 0° and below |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (a) | (b) | (b) | (b) | 99 | | 99 | | (b) | (b) | 99 | | 99 | | 70 | | 70 | 70 | | 70 | | 13 | 50 | 37 | 49 | 50 | 46 | 42 | | | 56 | 13 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| J | 33.3 | 18.7 | 25.0 | 71 | 1909 | -27 | 1884 | 1240 | 1.97 | 5.85 | 1916 | 0.07 | 1919 | 3.15 | 1936 | 5.9 | 18.0 | 1885 | 13.6 | 1927 | 81 | 83 | 72 | 78 | 8.8 | S | 54 | S | 1950 | 47 | 6.8 | 16 | 7 | 14 | 9 | 2 | 1 | 2 | 0 | 13 | 28 | 4 |
| F | 36.6 | 19.9 | 28.3 | 74 | 1932 | -26 | 1905 | 1028 | 1.91 | 5.64 | 1900 | 0.08 | 1877 | 3.17 | 1942 | 5.3 | 26.5 | 1900 | 18.0 | 1900 | 80 | 82 | 69 | 74 | 9.2 | NW | 52 | W | 1953 | 52 | 6.7 | 9 | 7 | 12 | 8 | 1 | 1 | 2 | 0 | 9 | 25 | 2 |
| M | 47.6 | 29.0 | 38.3 | 87 | 1907 | -11 | 1943 | 828 | 2.79 | 5.92 | 1944 | 0.25 | 1856 | 3.39 | 1944 | 3.7 | 18.2 | 1926 | 9.0 | 1946 | 79 | 83 | 63 | 68 | 9.7 | S | 56 | S | 1953 | 56 | 6.4 | 11 | 8 | 12 | 11 | 1 | 3 | 1 | 0 | 3 | 19 | * |
| A | 61.1 | 39.9 | 50.5 | 92 | 1930+ | 14 | 1920 | 435 | 3.44 | 8.66 | 1947 | 0.45 | 1870 | 5.08 | 1950 | 0.8 | 8.2 | 1920 | 7.0 | 1920 | 75 | 79 | 56 | 60 | 9.6 | S | 66 | SW | 1947 | 59 | 6.3 | 10 | 5 | 11 | 12 | * | 5 | 1 | * | * | 4 | 0 |
| M | 72.0 | 50.0 | 61.0 | 104 | 1934 | 28 | 1906 | 192 | 3.94 | 11.49 | 1915 | 0.47 | 193+ | 5.52 | 1927 | T | 0.1 | 1923 | 0.1 | 1923 | 79 | 78 | 55 | 59 | 7.8 | S | 61 | SW | 1950 | 64 | 6.2 | 11 | 11 | 9 | 12 | 0 | 7 | * | 1 | 0 | * | 0 |
| J | 81.9 | 59.9 | 70.9 | 105 | 1936+ | 35 | 1859 | 41 | 3.88 | 11.18 | 1882 | 0.45 | 1936 | 4.74 | 1911 | T | T | 1954+ | T | 1954+ | 82 | 80 | 57 | 60 | 6.6 | S | 66 | N | 1952 | 70 | 6.0 | 12 | 11 | 7 | 10 | 0 | 10 | * | 6 | 0 | 0 | 0 |
| J | 87.0 | 64.4 | 75.7 | 113 | 1976 | 48 | 1911 | 0 | 3.70 | 8.87 | 1880 | 0.46 | 1913 | 4.09 | 1895 | 0.0 | 0.0 | | 0.0 | | 79 | 81 | 53 | 58 | 5.6 | S | 75 | NW | 1953 | 76 | 4.9 | 16 | 11 | 4 | 8 | 0 | 8 | * | 11 | 0 | 0 | 0 |
| A | 84.8 | 62.5 | 73.7 | 106 | 1936 | 41 | 1915+ | 11 | 2.99 | 9.04 | 1882 | 0.44 | 1893 | 4.49 | 1926 | T | T | 1954+ | T | 1954+ | 82 | 85 | 56 | 64 | 5.4 | S | 45 | NW | 1953 | 70 | 5.3 | 14 | 11 | 6 | 9 | 0 | 7 | * | 4 | 0 | 0 | 0 |
| S | 77.5 | 55.0 | 66.3 | 104 | 1899 | 24 | 1942 | 86 | 3.73 | 12.30 | 1911 | 0.80 | 1887 | 3.63 | 1888 | T | 1.0 | 1942 | 1.0 | 1942 | 82 | 87 | 55 | 67 | 6.1 | S | 52 | SW | 1922 | 67 | 4.8 | 14 | 9 | 7 | 9 | * | 5 | 1 | 4 | 0 | * | 0 |
| O | 65.8 | 43.5 | 54.7 | 92 | 1922 | 7 | 1925 | 339 | 2.44 | 10.53 | 1941 | 0.04 | 1897 | 3.09 | 1939 | 0.1 | 3.3 | 1929 | 3.3 | 1929 | 78 | 86 | 55 | 67 | 6.8 | S | 47 | SW | 1949 | 63 | 4.7 | 15 | 7 | 9 | * | * | 2 | 1 | * | * | 4 | 0 |
| N | 48.4 | 31.0 | 39.7 | 81 | 1950- | 1 | 1950+ | 759 | 2.35 | 5.55 | 1931 | 0.07 | 1917 | 2.59 | 1939 | 1.5 | 10.7 | 1926 | 9.1 | 1926 | 80 | 84 | 65 | 70 | 8.7 | S | 56 | SW | 1952 | 51 | 5.5 | 11 | 7 | 12 | 8 | * | 1 | 1 | 0 | 2 | 16 | * |
| D | 36.4 | 20.7 | 28.6 | 71 | 1875 | -24 | 1924 | 1128 | 2.04 | 7.15 | 1873 | 0.28 | 1876 | 3.38 | 1949 | 4.2 | 18.0 | 1909 | 9.2 | 1909 | 82 | 85 | 72 | 79 | 8.4 | S | 58 | SW | 1948 | 44 | 6.4 | 9 | 7 | 15 | 9 | 1 | * | 2 | 0 | 10 | 26 | 2 |
| Year | 61.0 | 41.0 | 51.0 | 113 | JULY 1936 | -27 | JAN 1884 | 6087 | 35.18 | 12.30 | SEPT 1911 | 0.04 | OCT 1897 | 5.52 | MAY 1927 | 28.5 | 26.5 | FEB 1900 | 18.0 | FEB 1900 | 80 | 83 | 61 | 67 | 7.7 | S | 75 | NW | JULY 1953 | 63 | 5.5 | 142 | 105 | 118 | 113 | 7 | 59 | 12 | 30 | 3 | 125 | 8 |

(a) Length of record, years. (b) Normal values are based on the period 1921-1950, and are means adjusted to represent observations taken at the present standard location.

## AVERAGE TEMPERATURE

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Ann |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1900 | 28.6 | 21.7 | 31.7 | 51.8 | 63.6 | 70.7 | 71.7 | 78.1 | 66.2 | 58.4 | 38.2 | 29.3 | 51.2 |
| 1901 | 28.8 | 28.8 | 36.0 | 49.9 | 61.1 | 74.1 | 81.1 | 73.7 | 64.6 | 54.3 | 36.8 | 24.6 | 50.3 |
| 1902 | 28.1 | 21.1 | 41.4 | 50.0 | 66.6 | 67.8 | 74.4 | 70.3 | 61.5 | 55.1 | 47.6 | 27.4 | 50.8 |
| 1903 | 26.1 | 26.7 | 44.1 | 50.0 | 65.2 | 67.1 | 75.9 | 71.4 | 64.5 | 52.2 | 35.9 | 21.5 | 50.1 |
| 1904 | 18.2 | 20.9 | 36.4 | 45.4 | 62.9 | 70.4 | 72.9 | 69.1 | 65.4 | 51.8 | 41.3 | 28.0 | 48.5 |
| 1905 | 19.6 | 13.2 | 43.9 | 50.5 | 61.6 | 71.2 | 72.0 | 74.4 | 67.6 | 52.3 | 39.9 | 29.8 | 49.8 |
| 1906 | 30.2 | 27.0 | 29.3 | 54.2 | 63.0 | 68.3 | 72.6 | 75.4 | 69.7 | 52.9 | 39.5 | 30.6 | 51.1 |
| 1907 | 28.0 | 28.3 | 45.6 | 43.4 | 55.1 | 66.9 | 74.2 | 71.9 | 64.4 | 51.4 | 38.3 | 32.6 | 50.0 |
| 1908 | 26.8 | 27.0 | 42.3 | 51.0 | 62.0 | 69.4 | 74.2 | 72.6 | 69.0 | 54.1 | 41.8 | 29.4 | 51.6 |
| 1909 | 26.3 | 31.8 | 36.9 | 48.4 | 59.2 | 71.2 | 71.4 | 77.0 | 66.0 | 49.8 | 48.0 | 19.2 | 50.3 |
| 1910 | 24.3 | 23.8 | 49.8 | 52.0 | 58.4 | 68.8 | 75.4 | 72.2 | 65.4 | 56.6 | 35.2 | 25.4 | 50.3 |
| 1911 | 27.4 | 32.2 | 40.2 | 48.4 | 68.2 | 75.3 | 75.0 | 72.0 | 67.8 | 51.4 | 33.3 | 33.9 | 52.0 |
| 1912 | 11.0 | 30.8 | 28.4 | 51.3 | 64.2 | 68.4 | 74.9 | 72.4 | 67.0 | 54.8 | 41.8 | 32.7 | 49.0 |
| 1913 | 27.8 | 24.4 | 35.4 | 51.7 | 62.4 | 73.2 | 78.3 | 77.8 | 66.9 | 52.0 | 47.2 | 25.7 | 52.7 |
| 1914 | 33.2 | 19.3 | 36.8 | 51.2 | 65.0 | 74.2 | 78.8 | 75.4 | 66.2 | 57.2 | 43.4 | 20.8 | 51.7 |
| 1915 | 21.0 | 35.4 | 34.1 | 58.8 | 58.6 | 67.8 | 71.9 | 67.2 | 67.8 | 55.6 | 43.8 | 27.9 | 50.6 |
| 1916 | 27.2 | 24.4 | 37.4 | 48.8 | 61.4 | 65.8 | 81.0 | 78.0 | 63.6 | 54.2 | 42.4 | 25.2 | 50.7 |
| 1917 | 24.4 | 20.8 | 40.0 | 47.4 | 55.6 | 67.7 | 75.0 | 70.6 | 63.7 | 44.2 | 41.8 | 19.8 | 47.6 |
| 1918 | 10.4 | 27.9 | 45.6 | 45.8 | 66.4 | 71.4 | 72.8 | 77.5 | 58.2 | 56.2 | 41.9 | 36.6 | 50.9 |
| 1919 | 29.2 | 30.8 | 40.8 | 51.3 | 58.2 | 74.8 | 78.4 | 71.9 | 68.2 | 55.8 | 37.8 | 20.6 | 51.5 |
| 1920 | 18.6 | 27.8 | 41.5 | 44.2 | 60.6 | 72.0 | 73.6 | 72.2 | 68.5 | 60.2 | 38.6 | 30.3 | 50.7 |
| 1921 | 32.2 | 34.4 | 47.3 | 54.3 | 65.1 | 76.8 | 79.8 | 73.8 | 70.0 | 55.6 | 36.9 | 32.2 | 55.1 |
| 1922 | 23.8 | 28.9 | 41.2 | 52.3 | 65.6 | 73.2 | 74.7 | 74.5 | 69.6 | 58.0 | 43.2 | 28.8 | 52.9 |
| 1923 | 31.6 | 32.2 | 34.2 | 49.4 | 61.0 | 73.0 | 77.6 | 73.6 | 65.4 | 50.4 | 42.2 | 28.0 | 51.6 |
| 1924 | 19.0 | 28.0 | 44.8 | 53.5 | 55.5 | 69.2 | 71.0 | 72.7 | 60.4 | 58.2 | 41.2 | 21.8 | 48.9 |
| 1925 | 23.8 | 23.1 | 41.1 | 57.8 | 57.8 | 73.4 | 74.9 | 72.9 | 71.6 | 43.4 | 27.7 | 24.8 | 51.1 |
| 1926 | 26.9 | 33.4 | 32.0 | 44.0 | 64.0 | 67.2 | 73.8 | 74.4 | 65.6 | 52.5 | 38.2 | 28.6 | 49.9 |
| 1927 | 32.4 | 36.1 | 43.2 | 50.8 | 60.0 | 67.2 | 73.7 | 68.5 | 70.0 | 58.0 | 43.3 | 25.9 | 51.7 |
| 1928 | 26.5 | 32.3 | 40.4 | 47.6 | 63.3 | 68.0 | 75.6 | 74.8 | 61.2 | 57.0 | 41.7 | 32.0 | 51.5 |
| 1929 | 17.8 | 31.2 | 45.4 | 53.6 | 59.4 | 68.6 | 75.3 | 71.6 | 65.3 | 53.0 | 35.8 | 28.3 | 49.6 |
| 1930 | 17.0 | 38.4 | 38.6 | 55.0 | 63.3 | 71.6 | 78.2 | 76.1 | 69.8 | 53.0 | 42.4 | 29.6 | 52.6 |
| 1931 | 32.6 | 34.7 | 36.7 | 52.6 | 58.2 | 75.7 | 79.2 | 74.0 | 73.0 | 59.2 | 36.2 | 36.6 | 55.6 |
| 1932 | 33.2 | 36.8 | 31.8 | 51.4 | 63.7 | 73.4 | 76.7 | 74.2 | 64.8 | 53.8 | 36.0 | 27.8 | 51.9 |
| 1933 | 37.6 | 36.8 | 39.4 | 50.9 | 62.8 | 78.9 | 76.5 | 73.0 | 72.6 | 51.8 | 29.6 | 32.6 | 53.7 |
| 1934 | 31.7 | 23.8 | 34.1 | 51.6 | 68.7 | 79.2 | 81.0 | 74.4 | 63.8 | 57.4 | 48.0 | 26.0 | 53.1 |
| 1935 | 28.2 | 31.4 | 44.3 | 48.4 | 55.8 | 67.4 | 79.2 | 74.8 | 65.8 | 54.4 | 38.6 | 33.2 | 50.8 |
| 1936 | 17.2 | 14.8 | 41.9 | 48.2 | 67.0 | 72.0 | 84.3 | 80.2 | 70.5 | 54.2 | 37.8 | 33.8 | 51.6 |
| 1937 | 23.8 | 37.8 | 36.2 | 49.7 | 63.2 | 70.8 | 75.8 | 78.3 | 65.8 | 52.2 | 36.7 | 26.8 | 50.6 |
| 1938 | 28.2 | 36.2 | 47.4 | 53.2 | 62.2 | 69.9 | 76.5 | 77.2 | 68.1 | 60.3 | 43.0 | 30.0 | 54.2 |
| 1939 | 33.2 | 37.3 | 41.0 | 47.7 | 66.2 | 73.0 | 76.2 | 73.2 | 71.7 | 57.1 | 41.2 | 33.9 | 53.4 |
| 1940 | 13.2 | 29.4 | 35.9 | 48.8 | 58.9 | 73.4 | 77.4 | 74.6 | 66.6 | 59.0 | 38.2 | 34.0 | 50.8 |
| 1941 | 28.4 | 25.7 | 35.4 | 56.0 | 66.8 | 73.4 | 77.0 | 76.2 | 69.7 | 58.0 | 43.3 | 36.4 | 53.9 |
| 1942 | 25.6 | 28.8 | 42.9 | 54.1 | 61.9 | 71.9 | 76.2 | 73.4 | 64.8 | 55.2 | 41.4 | 24.6 | 51.7 |
| 1943 | 24.2 | 30.8 | 38.6 | 48.8 | 58.0 | 73.2 | 78.1 | 75.0 | 61.3 | 53.2 | 36.4 | 28.2 | 49.8 |
| 1944 | 31.0 | 29.4 | 34.4 | 47.4 | 66.4 | 74.2 | 74.8 | 73.8 | 66.2 | 54.4 | 43.0 | 22.2 | 51.4 |
| 1945 | 19.8 | 29.6 | 49.4 | 51.6 | 55.6 | 66.4 | 73.4 | 74.0 | 65.4 | 51.3 | 39.6 | 21.6 | 49.4 |
| 1946 | 27.2 | 30.8 | 50.1 | 54.2 | 58.2 | 70.4 | 78.1 | 69.9 | 65.6 | 59.0 | 42.8 | 33.0 | 53.1 |
| 1947 | 36.3 | 21.3 | 33.7 | 49.8 | 56.8 | 68.0 | 73.2 | 73.0 | 68.2 | 53.2 | 35.0 | 31.3 | 50.8 |
| 1948 | 30.2 | 27.6 | 37.5 | 55.0 | 58.6 | 70.6 | 74.8 | 74.3 | 69.0 | 52.3 | 43.8 | 31.4 | 51.2 |
| 1949 | 26.5 | 27.5 | 39.0 | 50.6 | 64.4 | 74.7 | 78.4 | 74.3 | 60.4 | 57.4 | 43.3 | 33.3 | 52.4 |
| 1950 | 29.2 | 26.9 | 34.6 | 44.2 | 63.6 | 69.9 | 73.4 | 69.0 | 65.8 | 60.1 | 34.0 | 20.8 | 49.2 |
| 9951 | 24.3 | 27.8 | 34.7 | 47.9 | 63.9 | 68.4 | 73.8 | 71.7 | 63.3 | 55.2 | 33.3 | 26.1 | 49.1 |
| 1952 | 37.2 | 33.0 | 36.1 | 52.4 | 60.9 | 76.7 | 77.0 | 73.6 | 65.7 | 48.4 | 42.5 | 33.3 | 52.1 |
| 1953 | 28.4 | 32.9 | 39.9 | 47.0 | 61.7 | 75.8 | 77.0 | 75.1 | 67.2 | 59.0 | 43.0 | 31.1 | 53.2 |
| 1864 | 27.4 | 27.8 | 38.4 | 55.8 | 57.8 | 75.5 | 77.8 | 73.6 | 69.1 | 55.4 | 41.8 | 31.1 | 53.1 |
| RECORD MEAN | | | | | | | | | | | | | |
| TEMP | 35.4 | 38.5 | 39.1 | 50.8 | 61.5 | 71.6 | 76.0 | 74.0 | 68.6 | 54.5 | 40.6 | 26.9 | 51.5 |
| MAX | 53.5 | 56.7 | 68.4 | 81.0 | 72.3 | 82.3 | 87.1 | 85.0 | 77.8 | 65.7 | 49.4 | 36.5 | 61.3 |
| MIN | 17.3 | 20.2 | 29.7 | 40.5 | 50.7 | 60.8 | 64.8 | 63.0 | 55.4 | 43.8 | 31.7 | 21.3 | 41.6 |

## TOTAL PRECIPITATION

PEORIA, ILLINOIS
GREATER PEORIA AIRPORT
1954

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1900 | 1.92 | 5.64 | 1.42 | 1.09 | 5.54 | 1.44 | 2.45 | 3.39 | 2.94 | 2.90 | 1.87 | 0.39 | 32.99 |
| 1901 | 1.96 | 1.24 | 4.21 | 0.61 | 1.50 | 4.32 | 2.97 | 1.29 | 2.64 | 0.90 | 0.80 | 2.28 | 28.03 |
| 1902 | 3.02 | 1.41 | 2.71 | 2.29 | 2.99 | 9.48 | 7.30 | 7.42 | 6.84 | 3.78 | 2.83 | 1.54 | 49.33 |
| 1903 | 0.89 | 1.70 | 3.06 | 3.15 | 6.22 | 2.39 | 4.91 | 7.22 | 5.78 | 2.13 | 0.85 | 0.95 | 39.85 |
| 1904 | 1.67 | 1.29 | 4.42 | 3.48 | 4.06 | 2.44 | 5.58 | 4.13 | 6.67 | 0.10 | 0.13 | 1.33 | 35.49 |
| 1905 | 1.13 | 3.45 | 2.00 | 2.99 | 4.52 | 3.13 | 4.24 | 1.36 | 1.78 | 2.77 | 2.45 | 1.00 | 32.45 |
| 1906 | 1.90 | 1.85 | 2.55 | 2.77 | 2.88 | 3.24 | 7.48 | 1.59 | 4.97 | 1.00 | 2.42 | 1.63 | 29.05 |
| 1907 | 3.39 | 0.14 | 2.34 | 2.82 | 7.08 | 3.89 | 4.89 | 6.60 | 2.94 | 0.25 | 1.68 | 1.68 | 36.08 |
| 1908 | 0.39 | 3.95 | 2.50 | 4.08 | 7.76 | 4.09 | 3.94 | 2.78 | 0.67 | 0.71 | 1.88 | 0.82 | 34.68 |
| 1909 | 1.53 | 3.67 | 1.81 | 7.17 | 3.72 | 3.56 | 4.57 | 0.79 | 3.68 | 3.58 | 3.53 | 2.50 | 42.14 |
| 1910 | 1.97 | 1.10 | 0.52 | 3.56 | 4.49 | 0.78 | 3.22 | 0.68 | 3.12 | 1.68 | 0.78 | 1.25 | 23.16 |
| 1911 | 2.37 | 2.39 | 2.64 | 2.69 | 1.03 | 6.64 | 2.58 | 1.73 | 12.30 | 2.65 | 3.01 | 2.13 | 42.16 |
| 1912 | 0.35 | 1.21 | 2.03 | 6.68 | 4.39 | 1.66 | 5.04 | 1.67 | 3.54 | 4.03 | 1.54 | 1.13 | 33.89 |
| 1913 | 2.18 | 3.00 | 3.46 | 3.54 | 1.85 | 2.50 | 0.46 | 2.87 | 2.58 | 3.11 | 2.77 | 0.74 | 29.06 |
| 1914 | 1.93 | 1.36 | 1.60 | 2.10 | 3.26 | 2.43 | 0.82 | 2.40 | 5.55 | 2.15 | 0.20 | 1.81 | 34.65 |
| 1915 | 1.89 | 2.71 | 0.67 | 1.60 | 11.49 | 2.08 | 6.91 | 4.78 | 4.88 | 0.35 | 2.29 | 1.66 | 41.51 |
| 1916 | 5.45 | 0.79 | 2.33 | 1.60 | 7.51 | 2.53 | 1.14 | 6.03 | 3.73 | 2.93 | 1.88 | 1.75 | 37.69 |
| 1917 | 1.66 | 0.37 | 2.54 | 4.54 | 2.40 | 1.42 | 3.92 | 3.36 | 3.14 | 2.23 | 0.07 | 0.63 | 30.11 |
| 1918 | 1.58 | 1.84 | 0.91 | 3.70 | 3.02 | 4.68 | 3.60 | 5.88 | 1.67 | 2.97 | 2.18 | 2.80 | 35.50 |
| 1919 | 0.07 | 2.32 | 4.52 | 2.35 | 3.79 | 3.96 | 3.09 | 4.73 | 3.48 | 2.12 | 2.91 | 0.30 | 33.64 |
| 1920 | 0.93 | 0.27 | 5.84 | 6.12 | 3.03 | 7.18 | 1.56 | 1.87 | 1.84 | 1.93 | 1.32 | 1.87 | 36.66 |
| 1921 | 1.39 | 0.29 | 4.89 | 5.36 | 2.13 | 2.17 | 3.95 | 3.86 | 4.66 | 2.97 | 3.43 | 3.91 | 39.21 |
| 1922 | 1.69 | 1.96 | 5.09 | 3.62 | 4.60 | 0.99 | 3.06 | 0.73 | 2.71 | 2.02 | 1.67 | 1.36 | 31.53 |
| 1923 | 1.10 | 0.53 | 4.08 | 1.95 | 5.15 | 2.06 | 1.25 | 2.84 | 5.28 | 3.85 | 1.27 | 2.21 | 33.10 |
| 1924 | 1.72 | 1.64 | 2.28 | 2.13 | 1.91 | 8.08 | 5.59 | 7.15 | 3.74 | 1.27 | 0.52 | 2.40 | 38.43 |
| 1925 | 0.48 | 1.99 | 1.58 | 1.68 | 1.53 | 3.15 | 3.93 | 4.27 | 4.99 | 2.49 | 2.70 | 1.12 | 29.91 |
| 1926 | 1.29 | 2.42 | 3.35 | 2.60 | 2.18 | 5.62 | 5.94 | 6.79 | 11.55 | 2.62 | 3.41 | 1.12 | 50.00 |
| 1927 | 1.76 | 2.85 | 4.55 | 4.87 | 9.27 | 5.71 | 4.94 | 1.45 | 3.82 | 4.20 | 3.58 | 3.91 | 51.66 |
| 1928 | 0.36 | 1.73 | 0.96 | 2.84 | 3.21 | 8.60 | 4.35 | 3.62 | 3.16 | 3.68 | 3.97 | 2.53 | 37.81 |
| 1929 | 3.98 | 0.58 | 4.57 | 4.58 | 5.03 | 4.44 | 5.76 | 3.02 | 1.04 | 3.89 | 1.72 | 1.97 | 39.66 |
| 1930 | 2.81 | 2.10 | 1.55 | 3.58 | 1.07 | 2.53 | 1.02 | 1.56 | 1.31 | 3.14 | 3.07 | 0.29 | 24.03 |
| 1931 | 0.48 | 0.83 | 2.50 | 3.23 | 5.14 | 3.29 | 5.91 | 2.49 | 4.92 | 3.15 | 5.55 | 2.78 | 27.75 |
| 1932 | 2.51 | 1.40 | 3.51 | 1.99 | 3.61 | 4.75 | 3.41 | 3.14 | 1.78 | 3.18 | 0.94 | 4.48 | 33.68 |
| 1933 | 1.69 | 1.33 | 4.70 | 3.05 | 7.97 | 1.15 | 1.93 | 2.66 | 5.92 | 2.23 | 0.26 | 1.18 | 34.07 |
| 1934 | 1.05 | 0.77 | 1.76 | 1.13 | 0.47 | 2.82 | 5.44 | 2.30 | 6.57 | 1.97 | 4.81 | 1.34 | 30.43 |
| 1935 | 1.93 | 2.83 | 3.32 | 2.91 | 8.58 | 6.62 | 2.04 | 0.98 | 2.33 | 1.58 | 4.03 | 1.39 | 40.15 |
| 1936 | 1.79 | 1.63 | 1.80 | 1.44 | 1.72 | 0.43 | 1.34 | 2.27 | 10.58 | 3.35 | 1.18 | 3.76 | 30.91 |
| 1937 | 2.86 | 3.48 | 1.02 | 4.43 | 3.23 | 4.87 | 2.32 | 1.55 | 1.14 | 2.88 | 1.28 | 2.06 | 29.81 |
| 1938 | 4.32 | 3.21 | 4.43 | 3.80 | 5.72 | 6.78 | 8.34 | 3.01 | 3.12 | 0.84 | 1.65 | 1.12 | 42.67 |
| 1939 | 3.40 | 2.88 | 3.34 | 5.16 | 4.48 | 5.53 | 4.80 | 2.38 | 0.85 | 3.80 | 1.14 | 0.81 | 38.27 |
| 1940 | 0.84 | 0.88 | 2.10 | 3.85 | 3.55 | 3.30 | 0.50 | 3.29 | 1.18 | 3.13 | 1.89 | 1.87 | 26.14 |
| 1941 | 3.56 | 1.01 | 1.86 | 4.40 | 5.84 | 3.16 | 1.89 | 2.07 | 4.87 | 10.23 | 2.02 | 1.38 | 41.29 |
| 1942 | 1.23 | 4.95 | 3.58 | 3.51 | 3.26 | 4.84 | 2.88 | 2.13 | 2.34 | 0.96 | 4.72 | 2.65 | 37.86 |
| 1943 | 1.84 | 0.99 | 2.38 | 5.28 | 7.55 | 3.18 | 2.54 | 4.63 | 0.68 | 1.56 | 1.53 | 0.56 | 32.91 |
| 1944 | 0.17 | 1.74 | 5.97 | 8.33 | 4.12 | 2.72 | 1.73 | 2.86 | 4.49 | 1.23 | 1.33 | 0.90 | 35.93 |
| 1945 | 0.49 | 1.24 | 3.90 | 3.58 | 4.90 | 5.66 | 0.57 | 1.11 | 7.36 | 0.74 | 2.19 | 2.38 | 36.13 |
| 1946 | 2.63 | 0.58 | 4.22 | 1.55 | 5.06 | 7.41 | 0.79 | 3.40 | 2.32 | 3.88 | 3.29 | 1.76 | 36.89 |
| 1947 | 1.47 | 0.33 | 3.35 | 8.86 | 4.63 | 7.13 | 1.64 | 1.33 | 3.49 | 3.57 | 2.54 | 3.13 | 39.17 |
| 1948 | 1.25 | 1.70 | 3.94 | 1.81 | 3.55 | 3.25 | 8.18 | 0.81 | 1.72 | 1.18 | 1.13 | 2.61 | 30.12 |
| 1949 | 4.43 | 1.63 | 2.57 | 2.78 | 1.17 | 3.25 | 4.83 | 1.38 | 1.82 | 2.71 | 0.85 | 8.34 | 33.33 |
| 1950 | 4.09 | 2.75 | 1.73 | 6.49 | 1.45 | 5.90 | 4.13 | 1.67 | 3.49 | 0.81 | 2.04 | 0.95 | 37.30 |
| 1951 | 1.56 | 3.44 | 3.35 | 4.09 | 2.56 | 4.04 | 5.81 | 3.30 | 2.50 | 3.97 | 3.43 | 1.16 | 37.23 |
| 1952 | 1.51 | 1.59 | 4.10 | 3.88 | 3.90 | 5.68 | 2.44 | 4.73 | 1.77 | 0.85 | 3.98 | 1.98 | 35.43 |
| 1953 | 1.28 | 0.77 | 4.60 | 2.81 | 2.16 | 3.47 | 6.32 | 1.61 | 2.11 | 0.74 | 0.43 | 2.33 | 28.83 |
| 1954 | 0.89 | 2.68 | 3.41 | 5.47 | 2.59 | 6.35 | 3.83 | 8.56 | 0.93 | 3.27 | 3.19 | 1.80 | 41.96 |
| RECORD MEAN | 1.83 | 1.91 | 2.83 | 3.46 | 3.90 | 3.92 | 3.73 | 3.05 | 3.67 | 2.62 | 2.33 | 2.04 | 35.08 |

## MONTHLY AND SEASONAL SNOWFALL

| Season | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1899-1900 | 0 | 0 | 0 | 0.0 | T | 5.0 | T | 26.5 | 1.4 | 0.8 | 0.0 | 0 | 33.7 |
| 1900-1901 | 0 | 0 | 0 | 0.0 | 0.5 | 0.6 | 1.0 | 10.8 | 0.5 | 0.0 | 0.0 | 0 | 13.4 |
| 1901-1902 | 0 | 0 | 0 | 0.0 | 0.0 | 3.7 | 6.3 | 2.1 | 0.3 | 0.0 | 0.0 | 0 | 12.3 |
| 1902-1903 | 0 | 0 | 0 | 0.0 | T | 0.6 | 7.0 | 4.5 | 0.0 | 0.0 | 0.0 | 0 | 12.1 |
| 1903-1904 | 0 | 0 | 0 | 0.0 | 0.0 | 4.0 | 9.8 | 10.0 | 5.3 | 0.0 | 0.0 | 0 | 29.2 |
| 1904-1905 | 0 | 0 | 0 | 0.0 | 0.0 | 3.2 | 10.5 | 13.8 | 0.3 | 0.5 | 0.0 | 0 | 27.5 |
| 1905-1906 | 0 | 0 | 0 | T | T | 1.5 | 5.1 | 0.1 | 13.2 | 0.0 | 0.0 | 0 | 17.9 |
| 1906-1907 | 0 | 0 | 0 | T | 0.3 | 0.6 | 8.5 | 1.4 | 7.9 | 0.7 | 0.0 | 0 | 19.4 |
| 1907-1908 | 0 | 0 | 0 | 0.0 | T | 2.5 | 3.4 | 13.3 | T | T | 0.0 | 0 | 18.2 |
| 1908-1909 | 0 | 0 | 0 | 0.0 | 0.3 | 3.6 | 3.7 | 5.0 | 1.4 | T | 0.0 | 0 | 13.1 |
| 1909-1910 | 0 | 0 | 0 | T | T | 18.0 | 2.3 | 2.1 | 0.0 | 1.7 | 0.0 | 0 | 24.1 |
| 1910-1911 | 0 | 0 | 0 | T | T | 1.6 | 11.3 | 7.2 | 0.1 | 4.0 | 0.0 | 0 | 24.2 |
| 1911-1912 | 0 | 0 | 0 | T | 3.7 | 6.3 | 3.1 | 6.5 | 10.5 | 4.5 | 0.0 | 0 | 34.6 |
| 1912-1913 | 0 | 0 | 0 | 0.0 | T | T | 7.3 | 9.5 | 5.3 | T | 0.0 | 0 | 22.1 |
| 1913-1914 | 0 | 0 | 0 | 0.1 | T | 5.0 | 6.6 | 13.3 | 1.1 | T | 0.0 | 0 | 25.0 |
| 1914-1915 | 0 | 0 | 0 | 0.0 | T | 14.4 | 8.4 | 0.1 | 4.1 | 0.0 | 0.0 | 0 | 27.0 |
| 1915-1916 | 0 | 0 | 0 | 0.0 | T | 7.2 | 3.9 | 3.1 | 4.0 | 0.0 | 0.0 | 0 | 18.2 |
| 1916-1917 | 0 | 0 | 0 | 0.3 | T | 3.9 | 4.1 | 1.2 | T | T | 0.0 | 0 | 9.5 |
| 1917-1918 | 0 | 0 | 0 | 0.4 | T | 7.4 | 16.9 | 0.4 | 0.2 | T | 0.0 | 0 | 25.5 |
| 1918-1919 | 0 | 0 | 0 | 0.0 | T | 7.0 | 0.3 | 9.8 | 4.4 | 0.0 | 0.0 | 0 | 21.5 |
| 1919-1920 | 0 | 0 | 0 | 0.0 | 0.9 | 1.3 | 8.5 | 0.3 | 0.3 | 8.3 | 0.0 | 0 | 19.3 |
| 1920-1921 | 0 | 0 | 0 | T | 0.5 | 4.6 | 3.2 | 0.2 | T | 0.1 | 0.0 | 0 | 8.6 |
| 1921-1922 | 0 | 0 | 0 | 0.0 | 4.2 | 1.2 | 2.8 | 0.6 | 1.3 | 0.0 | 0.0 | 0 | 10.1 |
| 1922-1923 | 0 | 0 | 0 | 0.0 | 2.5 | 1.9 | 5.4 | 1.5 | 3.7 | 1.6 | 0.1 | 0 | 16.7 |
| 1923-1924 | 0 | 0 | 0 | T | T | 0.6 | 5.0 | 5.9 | 7.9 | 0.4 | 0.0 | 0 | 19.8 |
| 1924-1925 | 0 | 0 | 0 | 0.0 | 0.2 | 6.0 | 5.1 | 1.1 | 7.3 | 0.0 | 0.0 | 0 | 20.3 |
| 1925-1926 | 0 | 0 | 0 | 2.8 | 4.8 | 3.0 | 4.8 | 3.0 | 18.2 | 7.4 | 0.0 | 0 | 44.0 |
| 1926-1927 | 0 | 0 | 0 | 0.0 | 10.7 | 1.6 | 15.5 | 1.3 | 0.3 | 0.1 | 0.0 | 0 | 29.5 |
| 1927-1928 | 0 | 0 | 0 | 0.0 | T | 6.5 | 1.0 | 1.1 | 2.5 | 0.1 | 0.0 | 0 | 11.2 |
| 1928-1929 | 0 | 0 | 0 | 0.0 | T | 1.3 | 10.1 | 4.1 | T | T | 0.0 | 0 | 15.5 |

| Season | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1929-1930 | 0 | 0 | 0 | 3.3 | 0.6 | 9.5 | 14.1 | 0.6 | 5.6 | 0 | 0 | 0 | 33.9 |
| 1930-1931 | 0 | 0 | 0 | T | 3.8 | 1.2 | 1.3 | T | 10.3 | T | 0 | 0 | 16.5 |
| 1931-1932 | 0 | 0 | 0 | 0 | 0.7 | 4.9 | 1.6 | 3.4 | 5.9 | T | 0 | 0 | 16.5 |
| 1932-1933 | 0 | 0 | 0 | T | 5.6 | 5.9 | 0.6 | 16.9 | 4.1 | T | 0 | 0 | 27.1 |
| 1933-1934 | 0 | 0 | 0 | 9 | T | 1.5 | 0.8 | 10.8 | 14.7 | T | 0 | 0 | 27.8 |
| 1934-1935 | 0 | 0 | 0 | 0 | 0.0 | 4.2 | 0.1 | 1.2 | 0.1 | 2.0 | 0 | 0 | 13.6 |
| 1935-1936 | 0 | 0 | 0 | 0 | 0.1 | 10.9 | 15.4 | 7.3 | 0.9 | 3.0 | 0 | 0 | 37.6 |
| 1936-1937 | 0 | 0 | 0 | T | 0.1 | 0.6 | 4.7 | 2.0 | 1.8 | T | 0 | 0 | 9.6 |
| 1937-1938 | 0 | 0 | 0 | T | 4.1 | 0.8 | 6.3 | 7.0 | T | 6.2 | 0 | 0 | 24.4 |
| 1938-1939 | 0 | 0 | 0 | T | 0.6 | 0.9 | 13.6 | 3.3 | T | T | 0 | 0 | 18.4 |
| 1939-1940 | 0 | 0 | 0 | 0 | T | 8.0 | 6.3 | 8.2 | 2.3 | T | T | 0 | 22.8 |
| 1940-1941 | 0 | 0 | 0 | 0 | 1.3 | 0.3 | 9.1 | 3.3 | 5.1 | 0 | 0 | 0 | 19.1 |
| 1941-1942 | 0 | 0 | 0 | 0 | 3.5 | 3.6 | 3.5 | 6.8 | 0.7 | T | 0 | 0 | 20.2 |
| 1942-1943 | 0 | 0 | 1.0 | 0 | 2.3 | 9.5 | 14.3 | 6.5 | 7.7 | 0.2 | 0 | 0 | 42.4 |
| 1943-1944 | 0 | 0 | 0 | 0 | 0.4 | 3.0 | T | 11.0 | 2.6 | 0 | T | 0 | 17.2 |
| 1944-1945 | 0 | 0 | 0 | 0.0 | 0.3 | 8.3 | 7.0 | 3.0 | 2.7 | T | 0 | 0 | 21.3 |
| 1945-1946 | 0 | 0 | 0 | 0.0 | 0.5 | 7.0 | 1.8 | 3.2 | 9.9 | T | 0 | 0 | 22.4 |
| 1946-1947 | 0 | 0 | 0 | 0.0 | 0.0 | 5.1 | 5.1 | 5.3 | 6.8 | T | 0 | 0 | 22.3 |
| 1947-1948 | 0 | 0 | 0 | 0.0 | 3.8 | 1.8 | 4.3 | 4.9 | 3.0 | 0 | 0 | 0 | 18.7 |
| 1948-1949 | 0 | 0 | 0 | 0 | T | 2.0 | 3.2 | 3.8 | 0.1 | 3.2 | 0 | 0 | 10.1 |
| 1949-1950 | 0 | 0 | 0 | 0 | 0.2 | 3.6 | 2.1 | 10.7 | 2.0 | T | T | 0 | 18.7 |
| 1950-1951 | 0 | 0 | 0 | T | 4.8 | 8.3 | 4.8 | 5.4 | 10.2 | 2.1 | T | 0 | 35.6 |
| 1951-1952 | 0 | T | T | 0 | 6.9 | 9.6 | 2.3 | 6.5 | 4.8 | T | 0 | 0 | 32.3 |
| 1952-1953 | 0 | T | T | 0 | T | 2.4 | 5.2 | 0.4 | 3.2 | 2.6 | 0 | T | 13.8 |
| 1953-1954 | 0 | T | 0 | 0 | 1.8 | 4.3 | 0.1 | 2.8 | 4.3 | T | T | T | 13.3 |
| 1954 | 0 | T | 0 | T | 4.0 | 8.2 | | | | | | | |

# MONTHLY AND SEASONAL DEGREE DAYS

PEORIA, ILLINOIS
GREATER PEORIA AIRPORT
1954

| Season | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1905-1906 | 6 | 0 | 36 | 414 | 752 | 1093 | 1061 | 1066 | 1107 | 328 | 165 | 20 | 6070 |
| 1906-1907 | 0 | 5 | 31 | 397 | 763 | 1078 | 1146 | 1028 | 621 | 651 | 116 | 49 | 6060 |
| 1907-1908 | 0 | 10 | 119 | 438 | 801 | 1065 | 1180 | 1103 | 765 | 423 | 147 | 37 | 6004 |
| 1908-1909 | 4 | 6 | 69 | 373 | 695 | 1106 | 1202 | 927 | 869 | 518 | 266 | 14 | 5989 |
| 1909-1910 | 10 | 1 | 123 | 475 | 512 | 1420 | 1262 | 1154 | 682 | 402 | 279 | 64 | 6185 |
| 1910-1911 | 0 | 13 | 73 | 295 | 891 | 1227 | 1189 | 914 | 768 | 503 | 101 | 0 | 5954 |
| 1911-1912 | 10 | 11 | 44 | 429 | 952 | 994 | 1671 | 1285 | 1135 | 406 | 124 | 28 | 7089 |
| 1912-1913 | 0 | 16 | 135 | 328 | 896 | 1001 | 1155 | 1134 | 918 | 406 | 149 | 43 | 5881 |
| 1913-1914 | 0 | 9 | 104 | 426 | 539 | 897 | 1019 | 1278 | 873 | 424 | 130 | 16 | 5706 |
| 1914-1915 | 0 | 3 | 68 | 257 | 847 | 1369 | 1364 | 828 | 959 | 245 | 223 | 39 | 6002 |
| 1915-1916 | 6 | 57 | 72 | 291 | 840 | 1155 | 1171 | 1178 | 853 | 460 | 172 | 54 | 6107 |
| 1916-1917 | 0 | 10 | 161 | 359 | 877 | 1233 | 1257 | 1238 | 779 | 533 | 322 | 39 | 6628 |
| 1917-1918 | 4 | 4 | 103 | 645 | 692 | 1397 | 1681 | 1040 | 592 | 372 | 99 | 5 | 6844 |
| 1918-1919 | 9 | 0 | 215 | 282 | 693 | 881 | 1111 | 961 | 748 | 415 | 248 | 2 | 5567 |
| 1919-1920 | 0 | 3 | 37 | 334 | 812 | 1378 | 1437 | 1084 | 725 | 625 | 174 | 22 | 6631 |
| 1920-1921 | 0 | 12 | 47 | 210 | 791 | 1057 | 1015 | 853 | 555 | 335 | 149 | 10 | 5036 |
| 1921-1922 | 0 | 0 | 23 | 294 | 752 | 1016 | 1281 | 983 | 739 | 378 | 66 | 12 | 5544 |
| 1922-1923 | 0 | 6 | 56 | 275 | 639 | 1120 | 1028 | 1172 | 960 | 468 | 169 | 27 | 5922 |
| 1923-1924 | 0 | 12 | 73 | 449 | 870 | 835 | 1427 | 1074 | 934 | 363 | 302 | 33 | 6172 |
| 1924-1925 | 13 | 4 | 157 | 201 | 717 | 1344 | 1286 | 896 | 736 | 253 | 263 | 8 | 5878 |
| 1925-1926 | 6 | 3 | 28 | 874 | 817 | 1230 | 1179 | 885 | 1020 | 635 | 120 | 38 | 6637 |
| 1926-1927 | 2 | 0 | 110 | 610 | 881 | 1186 | 1289 | 806 | 879 | 431 | 193 | 50 | 6017 |
| 1927-1928 | 0 | 18 | 90 | 244 | 652 | 1215 | 1193 | 952 | 768 | 522 | 98 | 44 | 5818 |
| 1928-1929 | 0 | 2 | 191 | 296 | 697 | 1021 | 1462 | 1229 | 806 | 371 | 249 | 49 | 6167 |
| 1929-1930 | 0 | 12 | 99 | 377 | 531 | 1141 | 1493 | 745 | 816 | 335 | 136 | 26 | 6007 |
| 1930-1931 | 2 | 0 | 48 | 410 | 680 | 1092 | 1004 | 792 | 874 | 386 | 255 | 32 | 5575 |
| 1931-1932 | 0 | 1 | 56 | 225 | 450 | 818 | 987 | 817 | 1029 | 410 | 111 | 0 | 4904 |
| 1932-1933 | 1 | 0 | 93 | 369 | 867 | 1155 | 851 | 1069 | 798 | 432 | 124 | 9 | 5798 |
| 1933-1934 | 0 | 0 | 21 | 412 | 785 | 1006 | 1034 | 1153 | 960 | 406 | 58 | 0 | 5814 |
| 1934-1935 | 0 | 14 | 108 | 244 | 574 | 1308 | 1205 | 941 | 642 | 519 | 288 | 56 | 5790 |
| 1935-1936 | 0 | 26 | 94 | 345 | 791 | 1297 | 1481 | 1455 | 717 | 521 | 72 | 12 | 6812 |
| 1936-1937 | 0 | 0 | 58 | 350 | 815 | 967 | 1277 | 1039 | 992 | 465 | 137 | 22 | 6022 |
| 1937-1938 | 0 | 0 | 115 | 427 | 853 | 1186 | 1205 | 807 | 544 | 377 | 161 | 6 | 5681 |
| 1938-1939 | 0 | 0 | 81 | 208 | 665 | 1088 | 1019 | 1050 | 749 | 527 | 92 | 18 | 5495 |
| 1939-1940 | 0 | 0 | 49 | 305 | 715 | 965 | 1402 | 1030 | 903 | 450 | 218 | 1 | 6243 |
| 1940-1941 | 0 | 12 | 93 | 294 | 804 | 984 | 1136 | 1105 | 919 | 298 | 89 | 2 | 5630 |
| 1941-1942 | 0 | 3 | 61 | 243 | 660 | 886 | 1221 | 1072 | 716 | 300 | 182 | 34 | 5378 |
| 1942-1943 | 0 | 8 | 29 | 317 | 706 | 1285 | 1292 | 967 | 923 | 485 | 228 | 25 | 6325 |
| 1943-1944 | 0 | 1 | 151 | 354 | 860 | 1204 | 1056 | 1031 | 950 | 528 | 131 | 20 | 6287 |
| 1944-1945 | 0 | 10 | 69 | 336 | 661 | 1328 | 1398 | 991 | 484 | 404 | 313 | 77 | 6072 |
| 1945-1946 | 6 | 4 | 102 | 418 | 786 | 1347 | 1170 | 957 | 660 | 343 | 231 | 46 | 5850 |
| 1946-1947 | 0 | 12 | 76 | 216 | 665 | 988 | 1133 | 1219 | 1005 | 456 | 263 | 48 | 6081 |
| 1947-1948 | 6 | 0 | 109 | 119 | 895 | 1045 | 1390 | 1087 | 654 | 330 | 180 | 14 | 6029 |
| 1948-1949 | 0 | 4 | 39 | 298 | 664 | 1040 | 1191 | 1050 | 805 | 434 | 107 | 3 | 5735 |
| 1949-1950 | 0 | 0 | 108 | 266 | 682 | 984 | 1105 | 1062 | 938 | 613 | 97 | 36 | 5949 |
| 1950-1951 | 2 | 18 | 62 | 191 | 925 | 1364 | 1254 | 1033 | 931 | 528 | 173 | 24 | 6455 |
| 1951-1952 | 1 | 2 | 119 | 334 | 944 | 1198 | 1163 | 819 | 891 | 390 | 144 | 4 | 6149 |
| 1952-1953 | 0 | 2 | 80 | 514 | 670 | 1065 | 1125 | 896 | 773 | 533 | 172 | 0 | 5770 |
| 1953-1954 | 0 | 0 | 62 | 231 | 654 | 1045 | 1150 | 766 | 910 | 304 | 247 | 31 | 5409 |
| 1954 | 0 | 0 | 36 | 344 | 689 | 1046 | | | | | | | |

REFERENCE NOTES

Unless otherwise indicated, dimensional units used in this bulletin are: temperature in degrees F.; precipitation and snowfall in inches; wind movement in miles per hour; and relative humidity in percent.

Sky cover is expressed in a range of 0 for no clouds or obstructions to 10 for complete sky cover. The number of clear days is based on average cloudiness 0-3 tenths; partly cloudy days on 4-7 tenths; and cloudy days on 8-10 tenths. Degree days are based on a daily average of 65 F. Sleet and hail were included in snowfall totals, beginning with July 1948.

Heavy fog in the Means and Extremes Table also includes data referred to at various times in the past as "Dense" or "Thick". The upper visibility limit for heavy fog is ¼ mile.

Below-zero temperatures are preceded by a minus sign.

The horizontal lines drawn on the Average Temperature, Total Precipitation, Monthly and Seasonal Degree Days, and Monthly and Seasonal Snowfall tables separate the data according to station location (see Station Location table).

* Less than one-half.
– No record.

\+ Also on earlier dates, months, or years.
T Trace, an amount too small to measure.

Record mean values at the end of the Average Temperature and Total Precipitation tables are long-term means based on the period of record beginning in 1905 and 1855, respectively. Values have not been corrected for changes in instrument location listed in the Station Location Table.

Data for earlier years may be obtained by contacting the Weather Bureau office in the city for which this summary was issued.

Prevailing Wind Direction in "Normals, Means, and Extremes" table are to 8 compass points only.

Temperature, precipitation and snowfall data prior to 1905 are from reliable local cooperative station records.

# STATION LOCATION

| Location | Occupied from | Occupied to | Airline distance and direction from previous location | Latitude | Longitude | Elevation above: Sea level: Ground | Elevation above: Sea level: Actual barometer elevation ($H_a$) | Elevation above: Ground: Wind instruments | Elevation above: Ground: Extreme thermometers | Elevation above: Ground: Psychrometer | Elevation above: Ground: Telepsychrometer | Elevation above: Ground: Tipping bucket rain gage | Elevation above: Ground: Weighing rain gage | Elevation above: Ground: 8" rain gage | Elevation above: Ground: | Elevation above: Ground: | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 701 4th Street (Latest of several in vicinity) | 1856 | 1905 | | 40° 42' | 89° 36' | 519 | | | 7 | | | | | 3 | | | A Dr. Frederick Snodel made almost continuous temperature & precipitation records. |
| 101 So. Institute Pl. (Bradley Campus) | 2/1/05 | 5/4/43 | 1 mi NW | 40° 43' | 89° 36' | 602 | 609 | 45 | 11 | 11 | | 5 | | 5 | | | Some official obs. records were begun at airport as early as 1939. |
| Greater Peoria Airport 5 mi. WSW of Post Office | 5/4/43 | | 4 mi SW | 40° 40' | 89° 41' | 654 | 658 | 50 | 7 | 7 | | 4 | 4 | 4 | | | 5/6/43 was beginning of recording of all meteorological data at airport & consolidation of WBO & WBAS. Triple register moved to airport on this date. City office officially closed 8/15/44. Wind instruments relocated 11/22/48 on control tower, former elevation 25 feet. |

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