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Tabulation and Application of Pan Evaporation Data for Utah Through 1976

Kenneth G. Hubbard

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INTRODUCTION

This report is prepared for the purpose of making available basic evaporation data for the State of Utah to all users of such data. The bulk of the report is a tabulation of pan evaporation data, associated wind movement, and pan water temperature for the period of record at the locations where such data are available. In addition a number of the factors which significantly effect evaporation have been briefly reviewed for the purpose of providing a perspective to those not accustomed to using pan evaporation data.

Evaporation data have recently been widely requested by those preparing environmental impact statements. Traditional uses of the data include estimation of the hydrologic water budget at planned reservoir sites, planning evaporation or settling ponds and estimating the crop moisture demand. Due to the widespread use of this information and the need to keep such information up to date it is thought that new data will be periodically appended to this report so that updated volumes can be made available.

I. EVAPORATION, THE IMPORTANT FACTORS

Evaporation is the physical process by which a liquid is transformed to a gaseous state. Evapotranspiration represents the combined processes through which liquid water enters the earth's atmosphere. Technically, transpiration is an evaporation process by which the liquid water in plants is transformed to water vapor in the air. Thus, evapotranspiration encompasses total evaporation amounts including the evaporation from all surfaces (soil, water, plant, etc.) and the water loss from growing plants. Independently of whether the surface is organic or inorganic, some factors remain equally important in determining loss rates, i.e. humidity, temperature, and wind. The intent of this discussion is to present enough information so that the reader can better apply the data in Section III.

A. Vapor Pressure Near the Lower Boundary

Vapor molecules in the air are in constant motion and, in general, move toward regions of lower vapor pressure. In nature water surfaces are associated with high humidity which usually causes movement of molecules away from that region (i.e. lakes, oceans, irrigated crops). Under certain conditions condensation or dew may form on land surfaces, but in general, the earth's surface acts as a source for atmospheric water vapor in the hydrologic cycle. The greater the difference between vapor pressure values at the water surface and in the air above, the faster the evaporation will take place. The amount of evaporation (E) can be related linearly to the boundary vapor pressure (e_b) and that of the nearby atmosphere (e_a):

$$E \propto (e_b - e_a) \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (1)$$

If $e_a > e_b$, the moisture is moving toward the boundary or condensation is taking place.

B. Temperature

Temperature affects the speed with which molecules move in a liquid and thus controls the rate at which these molecules can escape into the air. The vapor pressure exerted by the molecules directly above the water surface is thus proportional to the temperature. The higher the surface temperature of the liquid, the greater the vapor pressure at the boundary and the higher the evaporation rate, assuming the same atmospheric conditions. Temperature effects on evaporation are shown in Figure 1 for two locations in Utah. As can be seen there is not a one to one relationship between evaporation and temperature, primarily due to the other factors at work. It can be said that water vapor diffusivity increases with increasing temperature.

C. Wind

Evaporation over a small body of water increases with increasing wind speed. Under calm conditions evaporation over a lake

is slowed as the mean vapor content of the air increases and the vapor pressure difference decreases. Wind exposes the lake surface to the new air which in many cases is drier owing to the fact that it is advected from surrounding land surfaces.

Wind also causes turbulence in the air. This turbulence mixes the air at the water surface with air in the lower atmosphere and reduces moisture in the surface layer. As the vapor pressure difference between the water and the air immediately above it increases, the evaporation rate will be accelerated.

D. Water Quality

The quantity of material dissolved in a water solution can effect the evaporation rate. Salt water evaporation is less than fresh water evaporation given the same atmospheric conditions. The salt acts to reduce the vapor pressure at the liquid surface and thus reduces the difference ($e_b - e_a$). This fact is important when estimating evaporation from the Great Salt Lake because it has a high salinity content (greater than ocean water). A saturated salt solution of NaCl would have a vapor pressure equal to 75 percent of the pressure over fresh water. The Great Salt Lake is near saturation, but the fact that NaCl is not the only constituent makes calculation of vapor pressure more complicated. Many water bodies in Utah contain fresh water; wherein small amounts of salinity do not significantly modify the vapor pressure.

E. Atmospheric Pressure

The main effect of atmospheric pressure is upon the diffusivity of water vapor in the air. Diffusivity of one gas inside another is inversely related to the total pressure. The mean station pressure at Salt Lake City ranges from 870 mb in June to 876 mb in December, a difference of about 1 percent. The extremes in pressure are from 842 mb to 895 mb, a change of about 6 percent.

Pressure in Utah's mountains can easily be as low as 750 mb, which translates to about a 15 percent average decrease from surface pressure at Salt Lake City. When considering the change in diffusivity, one must also consider the temperature. Diffusivity decreases with decreasing temperature.

Comparison of a high elevation site to a lower valley station normally shows a lower pressure and usually shows a lower temperature at the former.[1] These two trends have opposite effects on the diffusivity, making actual trends vary with local atmospheric conditions. For reasonable assumptions (a dry adiabatic atmosphere in hydrostatic equilibrium), the effect of temperature and pressure changes on diffusivity with increasing altitude would be about a 5 percent increase for each kilometer.

Higher elevation sites would therefore favor evaporation if other factors were equal. The previously mentioned factors are more important to evaporation because turbulence, when present, quickly overshadows the upper limits on evaporation due to diffusion acting alone.

F. Surface Cover

1. Evapotranspiration. The total water loss from a surface can be estimated in several ways. Mathematically, a water balance can be used to estimate evapotranspiration, provided other quantities can be accurately measured:

$$E_t = P_n - R_o - \Delta S - D_r \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (2)$$

where E_t is evapotranspiration, P_n is precipitation, R_o is runoff, ΔS is the increase in stored water, and D_r is the drainage to levels below the depth to which ΔS relates.

Some of these parameters are not easily measured including runoff and drainage, but under certain conditions E_t can be accurately determined.

The other methods of calculating E_t utilize climatological data. These methods fall into one of the following categories:

a) Aerodynamic
b) Energy budget
c) Empirical

The vertical flux of moisture through a unit horizontal surface, E, is made up of two parts. The first part is due to the mean motion and the second is due to the eddy motion or fluctuations of motion about the mean:

$$E = \overline{\rho w q} = \overline{\rho w}\ \overline{q} + \overline{(\rho w) q'} \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (3)$$

$$= \overline{\rho w} \overline{q} + \overline{(\rho w)' q} \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (4)$$

where ρ represents the density of air, w is the vertical velocity of air, q is the mass of water vapor per unit mass of moist air (specific humidity) and the prime notation denotes instantaneous departures from the mean value of each quantity (i.e. $q = \overline{q} + q'$).

Near the surface the first term becomes zero because the mean vertical velocity is zero. The transport of moisture can then be considered only a function of the eddy motion $\overline{(\rho w) q'}$. If moisture (q) is conserved, $q' = -\ell(\partial \overline{q} / \partial z)$ i.e. $q_1 = q_o - \ell(\partial \overline{q} / \partial z)$ and Equation 3 reduces to the more familiar expression.

$$E = -\rho K \frac{\partial q}{\partial z} \quad \text{where } K = \overline{w \ell} \quad . \quad . \quad . \quad . \quad . \quad . \quad (5)$$

[1] See Peck (1967) for a Utah Case Study.

The symbol ℓ is the mixing length characteristic of the prevailing turbulent energy.

This equation allows for a calculation of E provided q can be measured at two levels and K can be determined. If the wind profile is known, K can be calculated, thus allowing one to solve for E.

Equation 4 reduces to $\overline{(\rho w)'q}$ which offers another method of solving for E. The value of $(\rho w)'$ is obtained using a hot wire anemometer.

Energy budget techniques are based upon writing a balance equation for energy near the surface. The latent energy released or absorbed at phase change can then be solved for if other terms can be measured:

$$\overline{R_n} = \overline{LE_t} + \overline{H} - \overline{G} \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (6)$$

where $\overline{R_n}$ is net radiation, $\overline{H}$ is the energy exchanged with the air (conduction) and $\overline{G}$ is the energy exchanged with the soil. The term $\overline{LE_t}$ is the energy involved in evaporation. Values of $\overline{H}$ are difficult to measure.

Combination of the aerodynamic and energy budget methods has been achieved by Penman and others. One of the main limitations of the Penman method (Penman 1948: Penman et al. 1967) is that it predicts the potential rather than the actual evapotranspiration over a water surface.

The empirical techniques for estimating evapotranspiration from a crop surface are not new and have been discussed elsewhere. A set of coefficients must be developed for each crop. The coefficients give an empirical description of the relationship between potential E_t and other climatic factors.

Empirical relationships between pan evaporation and potential E_t have been used. Both pan and crop coefficients must be known. Pan coefficients will be discussed in a later section.

2. Surface Roughness. Rough surfaces are usually associated with more eddy motion and therefore a higher rate of evaporation. In Equation 4, the $(\rho w)'q$ term would be larger over rough surfaces given the same moisture content.

The effect of the rough surface is implicit to any technique which measures E_t directly or solves for E_t as a residual of other measurements. It is only partially accounted for in the empirical techniques through the individual crop coefficients.

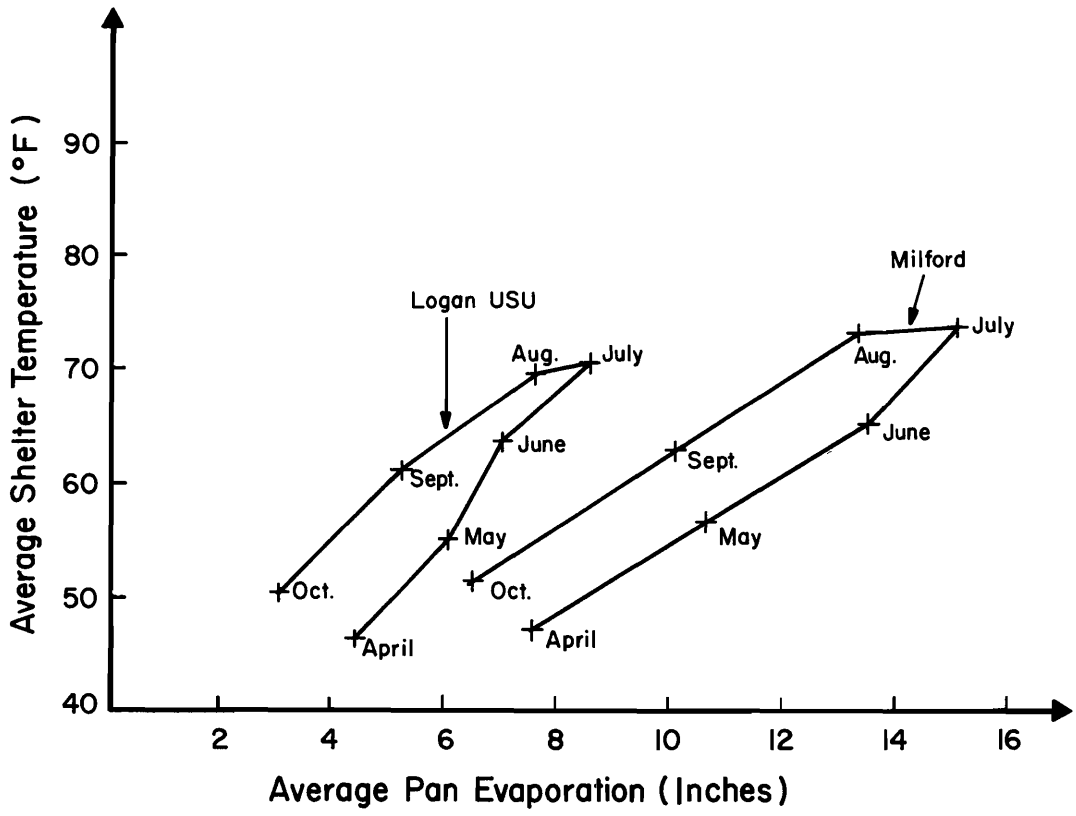

Figure 1. The relationship between average temperature at shelter height and the average Class A pan evaporation by months. Logan USU is at 40° 45' N and 111° 49' W while Milford is at 38° 26' and 113° 01' W.

II. MEASURING WATER FLUX NEAR THE SURFACE

Pan evaporation measurements represent an integrated flux of water vapor and under normal climatic conditions it is a net loss of water from the pan. Other techniques, some of which distinguish between water loss by evaporation and water gain by condensation, have also been developed. To illustrate how pan evaporation fits in with other measurements, a brief discussion of other techniques is also given.

A. Pan Measurements

The evaporation pan is one of only a few instruments routinely employed for measuring daily evaporation. Pan evaporation is determined by using a water balance as in Equation 2, where R_o and D_r are zero. Corrections are necessary for the precipitation falling in the pan and are usually determined from an adjacent 8 inch standard rain gage. There are several evaporation pan types from which to choose.

1. Pan Types. The official Class A installation now in use consists of a stainless steel pan 4 feet in diameter and 10 inches deep. The bottom is supported at a level 6 inches above the ground surface by a wooden structure. Water loss from the pan is determined in one of two ways. The distance from the top of a stilling well, which serves as a reference point, to the surface of the water inside the well can be determined by means of a micrometer hook gage. Daily or weekly change in the water level corrected for precipitation represents the evaporative water loss from the pan. This method was used as a standard until about 10 years ago when the fixed point gage was developed.

The fixed point method of measurement is considered to be more accurate since the water level in the pan is more constant. In this method of measurement, a permanent reference point is inserted in the stilling well. The amount of water required to raise the liquid to the reference level is the measurement for any measuring period. More detail on the methods of measurement and observer instructions at a Class A installation can be found in the "Observer's Handbook" (ESSA 1970).

The U.S. Bureau of Plant Industry sunken pan is 6 feet in diameter and 2 feet deep. It is installed so that the rim of the pan is within 4 inches of the ground surface and the water level is kept within one-half inch of the ground surface. Data from this type of pan is a better indication of true lake evaporation because of the pan's size and the exposure.

The Colorado sunken pan is 3-feet square and 18-inches deep and placed within a lake. It is supported by two drum floats in the center of a raft 14 by 16 feet. Baffles are used to reduce wave action.

2. Annual Pan Coefficients. Evaporation pans are too small to simulate the processes controlling lake evaporation rates. The contained water reacts more readily to changes in air temperature and wind than does a larger body of water. A lake is also subject to wave action which creates a larger surface area both on the lake surface and through the tiny drops formed by mechanical action. The extent of the lake also increases the humidity of the air passing over, thus decreasing the relative evaporation from the downwind water surface. Lake water is exchanged between various depths thereby effecting the surface temperature of the lake. The interactive effects of these various processes are difficult to quantify, and sufficient measurements are not available to ascertain the relative importance of each.

Even though a pan cannot replicate the interactive processes determining evaporation rates from a lake, pan coefficients have been developed to relate pan and lake evaporation. These coefficients are intended to reflect the average ratio of the lake to the pan evaporation.

Class A pans have an annual coefficient ranging from 0.6 to 0.8 with an average of 0.7. A map of this coefficient over the continental U.S. is available in the Climatic Atlas (ESSA 1968). The U.S. Bureau of Plant Industry sunken pan has an average annual coefficient of 0.95. The Colorado sunken pan has a range of 0.75 to 0.86 and a mean of 0.78, while a pan coefficient of 0.80 is recommended for the USGS floating pan. Pan coefficients for shorter time periods vary over the year and are more difficult to estimate precisely. Pan data are presented in Section V.

B. Other Measurements

Other methods have been employed to estimate the net movement of vapor across a surface. The complexity of these methods is indicated in a brief summary presented below.

Lysimeters are water tight tanks which are set into the earth and then filled with soil to simulate the interception of water moving downward through the soil. Vegetation can then be grown in the tank and the water balance determined by either keeping track of the water added or measuring changes in water storage. Provided the other terms are known, the evapotranspiration can be calculated using Equation 1.

The turbulent exchange method can be employed by measuring the distribution of water vapor and wind speed in the lowest air layers. Anemometers and dew sensors are necessary equipment for employing this method. This method is discussed in greater detail in basic textbooks on meteorology (Monteith 1973).

The energy budget approach can be employed by measuring the net radiation, the air and ground energy exchanges, and then applying Equation 5.

Methods have been derived for estimating evaporation (consumptive use) from crops using temperature and other variables as the independent variable. These methods require that crop coefficients be developed to indicate the use of water by plants as a function of time into the growing season (SCS 1964). Other implementations and methods have been employed, but will not be described here for the sake of brevity (Hubbard et al. 1977; Hanks et al. 1976).

The complexity of the above methods gives added value to this set of evaporation data from which estimates are relatively easy to apply.

III. PAN EVAPORATION DATA FOR UTAH

A. Monthly Evaporation

Pan evaporation, wind movement, and water temperatures have been tabulated for each month of the evaporation season at all available stations. The evaporation season at mid latitudes is usually taken as the months May-October inclusively due to the fact that ice in the pans would preclude satisfactory measurement during colder months. A station map is shown in Figure 2. Monthly values of evaporation are included in Section V of this report. Also summarized in Section V are the average, highest, and lowest values, and the standard deviations for the months of record.

B. Seasonal Estimates

A comparison between standard climatic measurements and evaporation data (Hughes et al. 1974) was previously used to estimate the seasonal evaporation at a number of climatic stations where pan measurements have not been made. These estimates are given in Table 1.

C. Conversion Percentages and Pan Coefficients

For the convenience of the reader, the Utah portion of several national maps published in Technical Paper No. 37 (Kohler 1959) have been extracted and included. Figure 3 is the "Seasonal Pan Evaporation Related to Percent of Annual" and Figure 4 is the "Average Annual Pan Coefficient" which can be used to convert annual pan evaporation to an estimate of average annual lake evaporation. It should be emphasized that the pan coefficients determined from Figure 4 will only provide approximations of annual lake evaporation, since the actual evaporation is strongly influenced by such local factors as the lake's shape, size, depth, and orientation with respect to prevailing winds.

IV. SAMPLE CALCULATIONS

A. Determination of Annual Pan Evaporation

Let's assume that we are planning construction of a self-contained sewage lagoon at a latitude of 40 degrees north and a longitude of 112 degrees west. The pan evaporation at the site has been estimated at 50 inches for the evaporation season, May through October.

The percent of annual evaporation is determined from the map (Figure 3) at the above latitude and longitude as 80 percent. To determine the annual pan evaporation for the site, we must divide the seasonal evaporation (50 inches) by the percent of the annual determined from the map (80) which equals 62.5 inches of annual pan evaporation for the site.

B. Estimating Annual Lake Evaporation

To estimate the annual lake evaporation for the site, we first look up the pan coefficients for the desired latitude and longitude (70 percent from Figure 4). The annual lake evaporation estimate is then determined by multiplying the annual pan evaporation (62.5 inches from A. above) by the pan coefficient (70) which equals 43.75 inches.

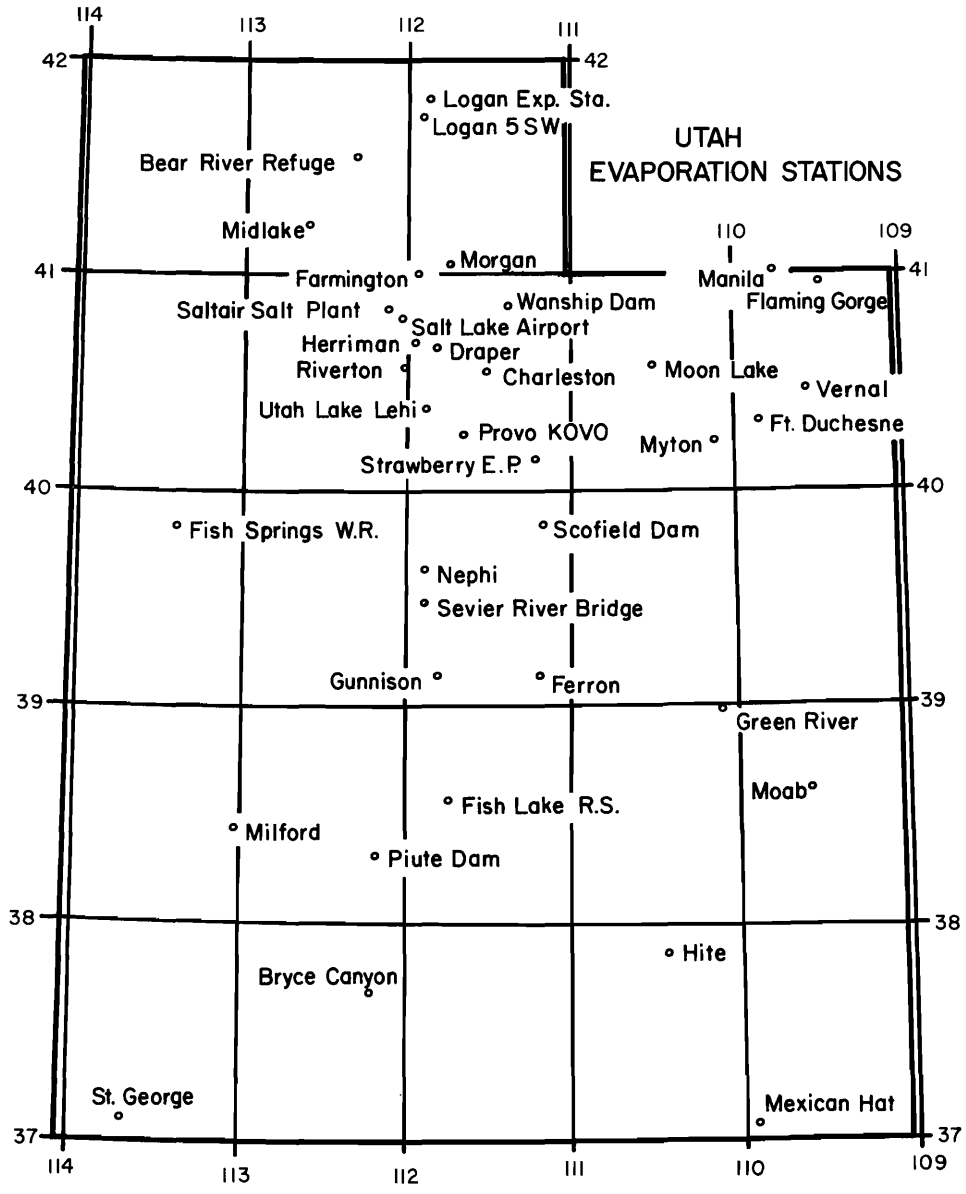

Figure 2. A map depicting the stations in Utah for which evaporation data has been tabulated.

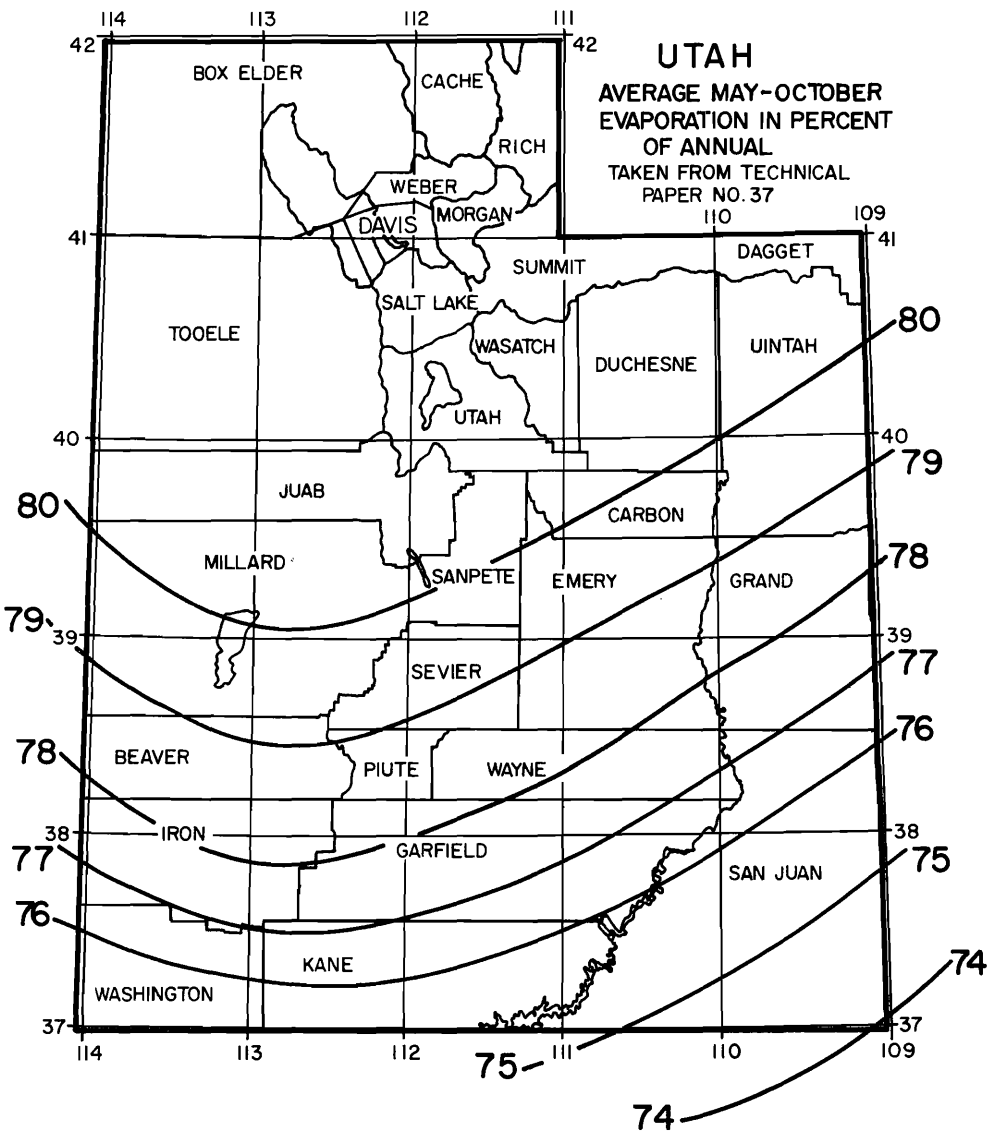

Figure 3. Isolines showing the percentage of annual pan evaporation which occurs during the May-October season.

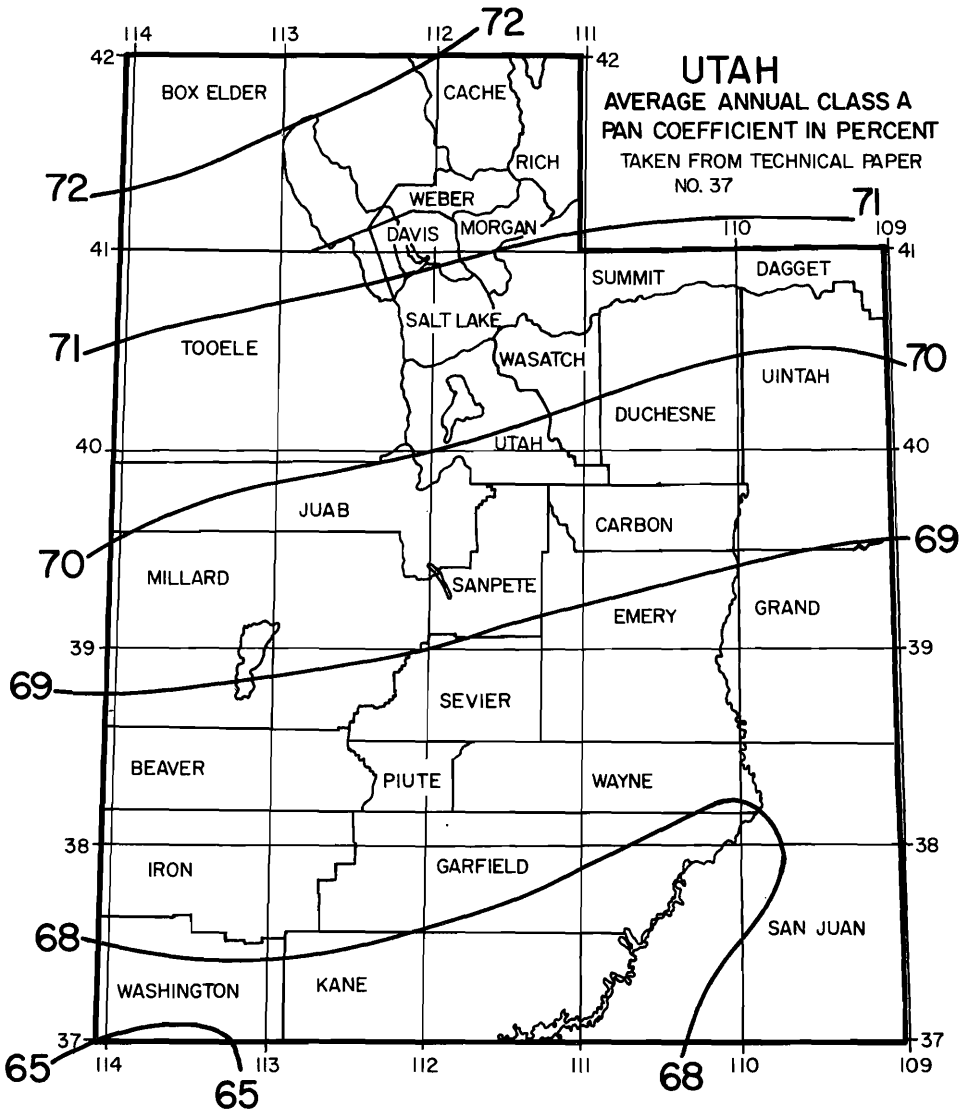

Figure 4. Isolines showing the pan coefficients which are used as a multiplying factor to estimate lake evaporation from pan evaporation. Pan coefficients represent the average ratio of lake evaporation to pan evaporation in a given area.

SECTION V

DATA TABULATIONS FOR UTAH STATIONS

Table 1. Estimates of pan evaporation at climatic stations where pan data are estimated by other climatic parameters.

Station	Elevation	May	June	July	Aug.	Sept.	Oct.	Seasonal
Altamont	6370	6.0	6.8	7.8	7.1	4.8	2.8	35.2
AS&R Research Laboratory	4246	8.6	10.1	10.7	8.7	6.7	4.3	49.0
Alton	6370	8.0	9.3	10.4	9.3	6.9	4.2	48.2
Antelope	4225	9.9	11.6	12.4	10.0	7.7	4.9	56.5
Beaver	5920	7.0	8.0	9.2	8.4	5.6	3.2	41.4
Bingham Canyon	6095	7.3	8.6	9.1	7.4	5.7	3.6	41.7
Birdseye	5740	7.1	8.3	8.9	7.2	5.5	3.5	40.4
Black Rock	4895	9.7	11.3	12.7	11.3	8.4	5.2	58.6
Blanding	6036	9.0	10.4	11.2	9.0	6.9	4.4	50.9
Bluff	4315	12.3	14.3	15.2	12.3	9.5	6.1	69.6
Bonanza	5450	8.3	9.5	10.9	9.9	6.7	3.8	49.2
Brigham City	4335	9.6	11.2	12.0	9.7	7.4	4.8	54.7
Bryce Canyon FAA AP	7595	6.7	7.8	8.4	6.8	5.2	3.3	38.2
Bryce Canyon NP HDQ	7950	6.7	7.8	8.3	6.7	5.2	3.3	38.1
Capitol Reef Natl PK	5500	10.8	12.5	14.0	12.5	9.3	5.7	64.8
Cedar City FAA AP	5601	7.8	8.9	10.3	9.3	6.3	3.6	46.2
Cedar City Steam Plant	5980	10.3	12.0	13.4	12.0	8.9	5.5	62.0
Cedar Point	6760	7.4	8.4	9.7	8.8	5.9	3.4	43.6
Clear Creek	8300	5.7	6.6	7.0	5.7	4.4	2.8	32.1
Cisco	4351	11.1	13.0	13.8	11.2	8.6	5.5	63.2
Clear Lake Refuge	4600	9.3	10.8	11.6	9.3	7.2	4.6	52.8
Coalville	5550	6.7	7.8	8.7	7.8	5.8	3.6	40.4
Corinne	4230	8.7	10.1	10.8	8.7	6.7	4.3	49.4
Cottonwood Weir	4950	12.0	13.9	15.6	13.9	10.4	6.4	72.2
Cove Fort	5980	8.0	9.1	10.5	9.6	6.5	3.7	47.4
Deer Creek Dam	5270	8.0	9.2	10.4	9.2	6.9	4.2	47.9
Delta AP	4759	9.8	11.4	12.8	11.4	8.5	5.2	59.3
Deseret	4585	9.1	10.6	11.3	9.1	7.0	4.5	51.5
Desert Exp Range	5252	10.4	12.1	12.9	10.4	8.0	5.1	58.9
Duchesne	5510	6.8	7.7	8.9	8.1	5.4	3.1	40.0
Dugway	4340	9.7	11.3	12.1	9.8	7.5	4.8	55.3
Echo Dam	5500	6.9	8.0	9.0	8.0	6.0	3.7	41.5
Elberta	4690	6.3	7.2	8.3	7.5	5.1	2.9	37.3
Emery	6200	8.4	9.7	10.9	9.7	7.3	4.4	50.4
Ephraim Sorensens Fld R	5580	6.7	7.6	8.8	8.0	5.4	3.1	39.4
Escalante	5810	9.5	11.0	12.3	11.0	8.2	5.0	56.9
Fairfield	4876	8.6	10.0	10.6	8.6	6.6	4.2	48.6
Fillmore	5160	8.3	9.5	10.9	10.0	6.7	3.9	49.3
Garfield	4310	9.7	11.3	12.1	9.8	7.5	4.8	55.2
Garland	4350	8.5	9.9	10.5	8.5	6.5	4.2	48.1
Garrison	5275	10.0	11.6	12.4	10.1	7.7	4.9	56.8
Glen Canyon City	4160	11.3	13.1	14.0	11.4	8.7	5.6	64.1
Grouse Creek	5270	7.7	9.0	9.6	7.8	6.0	3.8	44.0
Hanksville	4308	9.8	11.3	12.7	11.4	8.5	5.2	58.9
Hardware Ranch	5560	4.7	5.4	6.2	5.6	3.8	2.2	27.9
Heber	5580	5.2	5.9	6.8	6.2	4.2	2.4	30.6
Hiawatha	7230	7.6	8.8	9.9	8.8	6.6	4.0	45.6
Hovenweep Natl Mon	5240	10.4	12.2	13.0	10.5	8.1	5.2	59.3
Ibapah	5280	8.3	9.7	10.4	8.4	6.5	4.1	47.4
Jensen	4720	7.4	8.5	9.7	8.8	5.9	3.4	43.5

Table 1. Continued.

Station	Elevation	May	June	July	Aug.	Sept.	Oct.	Seasonal
Kamas Ranger Station	6495	5.7	6.6	7.1	5.7	4.4	2.8	32.2
Kanab	4985	9.1	10.4	12.0	10.9	7.3	4.2	53.9
Lakeside	4230	8.4	9.8	11.0	9.8	7.3	4.5	50.8
Laketown	5988	6.4	7.4	8.0	6.4	4.9	3.2	36.3
La Sal	6960	7.9	9.1	9.8	7.9	6.1	3.9	44.6
La Verkin	3200	10.7	12.2	14.1	12.8	8.6	4.9	63.3
Levan	5300	9.8	11.4	12.1	9.8	7.5	4.8	55.4
Lewiston	4480	6.6	7.5	8.7	7.9	5.3	3.1	39.1
Loa	7045	6.9	8.0	8.5	6.9	5.3	3.4	39.0
Logan Radio KVNU	4504	6.8	7.7	9.0	8.1	5.5	3.1	40.3
Logan Utah State Univ	4785	9.5	11.0	12.3	11.0	8.2	5.0	57.1
Logan 5 SW Exp Farm	4490	6.7	7.6	8.8	8.0	5.4	3.1	39.4
Logan Sugar Factory	4475	7.2	8.2	9.4	8.6	5.8	3.3	42.5
Lund	5091	11.4	13.3	14.8	13.3	9.9	6.1	68.7
Manti	5740	6.6	7.5	8.6	7.8	5.3	3.0	38.8
Midvale	4342	10.1	11.8	12.6	10.2	7.8	5.0	57.4
Modena	5460	10.2	11.9	12.7	10.3	7.8	5.0	57.9
Monticello	6980	8.1	9.4	10.1	8.1	6.3	4.0	46.0
Moroni	5525	7.2	8.1	9.4	8.6	5.8	3.3	42.4
Mountain Dell Dam	5420	7.3	8.5	9.5	8.5	6.3	3.9	44.0
Nephi	5240	10.3	12.0	12.8	10.3	7.9	5.1	58.4
New Harmony	5290	7.8	8.8	10.2	9.3	6.2	3.6	45.9
Oak City	5075	10.2	11.9	12.7	10.2	7.9	5.0	57.8
Ogden Sugar Factory	4280	8.1	9.2	10.6	9.6	6.5	3.7	47.7
Panguitch	6720	7.5	8.7	9.3	7.5	5.8	3.7	42.6
Park City	6970	5.9	6.9	7.3	5.9	4.5	2.9	33.4
Park Valley	5520	8.7	10.1	11.3	10.1	7.5	4.6	52.3
Parowan	5975	7.4	8.4	9.7	8.8	5.9	3.4	43.6
Partoun	4750	10.0	11.6	12.4	10.1	7.7	4.9	56.8
Pine View Dam	4940	8.6	10.0	11.2	10.0	7.4	4.5	51.6
Pleasant Creek	6900	7.3	8.5	9.5	8.5	6.3	3.9	43.8
Pleasant Grove	4668	7.1	8.0	9.3	8.4	5.7	3.3	41.8
Price	5500	9.4	10.9	12.3	10.9	8.2	5.0	56.7
Richfield Radio KSVC	5270	7.7	8.7	10.1	9.2	6.2	3.6	45.5
Richmond	4680	6.8	7.7	8.9	8.1	5.5	3.1	40.2
Riverdale PH	4390	8.7	10.2	10.9	8.8	6.8	4.3	49.6
Roosevelt	5094	7.6	8.6	10.0	9.1	6.1	3.5	44.9
Santaquin	5120	8.7	10.1	11.3	10.1	7.5	4.6	52.3
Scipio	5306	7.4	8.4	9.7	8.8	5.9	3.4	43.6
Silver Lake Brighton	8740	4.1	4.7	5.3	4.7	3.5	2.2	24.4
Snake Creek PH	5950	6.6	7.6	8.5	7.6	5.7	3.5	39.5
Snowville	4560	8.5	9.9	10.5	8.5	6.5	4.2	48.1
Spanish Fork PH	4720	8.4	9.7	10.4	8.4	6.5	4.1	47.5
Thiokol Plant 78	4600	8.8	10.3	11.0	8.9	6.8	4.4	50.0
Thompson	5150	10.0	11.7	12.5	10.1	7.8	5.0	57.0
Timpanogos Cave	5600	7.7	8.9	10.0	8.9	6.6	4.1	46.1
Tooele	4820	9.1	10.6	11.3	9.2	7.0	4.5	51.7
Trenton	4460	6.8	7.8	9.0	8.2	5.5	3.2	40.4
Tropic	6235	8.5	9.9	11.1	9.9	7.4	4.5	51.4
University of Utah	4800	9.1	10.6	11.3	9.2	7.0	4.5	51.8
Veyo PH	4600	10.3	12.0	12.8	10.4	8.0	5.1	58.5
Wendover	4237	12.2	14.2	15.2	12.3	9.4	6.0	69.2
Woodruff	6343	6.2	7.2	7.7	6.2	4.8	3.1	35.2
Zion Natl PK	4050	13.4	15.5	17.4	15.5	11.6	7.1	80.5

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MONTHLY PAN EVAPORATION, ASSOCIATED DAILY WIND MOVEMENT, AND WATER TEMPERATURES FOR THE PERIOD OF RECORD

MONTHLY EVAPORATION

BEAR RIVER BIRD REFUGE Lat: 41° 28' Long: 112° 16' Elev: 4208 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1937								12.38	8.90	4.21	1.41	
1938						11.07	10.95	11.09	7.91	3.89		
1939				6.60	9.67	10.60	12.87	10.71	6.74	4.01		
1940					10.79	12.19	13.45	11.80	5.64	3.11		
1941						9.15	9.85	9.18	6.38			
1942								10.76	7.09			
1943					8.18	9.79	11.35	10.61	7.44			
1944							12.15	10.89	7.04			
1945					7.56	7.22	11.03	9.27	6.14			
1946						9.97	11.22	8.67	5.51			
1947						7.36	10.55	9.36	6.34			
1948					7.84	8.20	11.83	10.88	6.51			
1949					7.42	8.16	9.74	9.27	6.46	2.87		
1950				4.62	6.40	8.92	10.63	9.26	5.64			
1951					6.89	9.29	11.14	9.96	6.54	3.49		
1952						9.21	10.72	9.37	6.54	3.78		
1953				3.96	5.67	9.35	10.25	9.93	7.47	3.81		
1954					8.78	8.77	11.38	10.64	7.26	3.59		
1955				4.23	7.88	8.74	11.27	8.73	5.94	3.33		
1956				5.20	6.28	9.50	10.43	9.76	6.77	2.98		
1957				4.68	6.29	7.86	10.48	10.38	5.91	3.28		
1958				4.73	8.14	10.38	11.69	10.08	6.92	4.18		
1959				5.71	7.26	8.90	10.61	8.96	6.27	3.67		
1960				5.71	8.15	10.82	12.01	10.95	7.43	3.74		
1961				6.09	9.13	10.98	11.78	9.60	3.30			
1962				5.73	7.58	8.96	10.61	10.30	7.09	4.37	1.36	
1963				3.59	7.92	7.69	10.96	10.36	5.47	3.70		
1964						6.80	11.62	10.35	7.03	3.62		
1965				4.49	7.00	7.86	9.99	8.22	4.92	3.23		
1966				5.24	8.10	9.40	12.11	10.29	6.61	3.28		
1967					6.78	6.70	9.66	9.31	5.96	3.38		
1968				4.82	7.96	8.52	11.69	7.98	6.29	3.07		
1969				5.62	10.41	7.98	10.87	10.66	7.06	2.91		
1970				4.91	8.04	9.98	10.51	10.44	6.19	2.99		
1971				4.91	6.89	9.43	10.64	8.70	6.36	2.58		
1972				5.04	8.31	8.93	10.93	9.32	5.99	3.33		
1973				5.27E	8.46	9.82	10.40	10.42	5.60	3.71		
1974					8.62	10.99	12.82	10.00	7.22	4.06		
1975					6.68	8.18	9.87	8.77	5.99			
1976				4.59E	8.68	8.65	10.33	8.76	5.72	3.06E		
No. of Yrs.				21	31	37	38	40	40	29	2	
Average				5.03	7.86	9.09	11.06	9.91	6.44	3.49	1.39	
Std. Dev.				.717	1.166	1.266	.891	.963	.917	.452	.035	
Maximum				6.60	10.79	12.19	13.45	12.38	8.90	4.37	1.41	
Minimum				3.59	5.67	7.22	9.66	7.98	4.92	2.58	1.36	

BEAR RIVER BIRD REFUGE — MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1937								2089	2226	1974		
1938						2490	1920	2008	1876	1924		
1939				2693	2823	2809	2034	1572	1825	1968		
1940					2667	2159	1816	1767	1962	1391		
1941						2217	1482	1613	2154			
1942		.						1845	1301			
1943					2352	2442	1625	1927	974			
1944							1733	1553	1181			
1945					2711	1762	1414	1751	1535			
1946			2844	2129	2462	1866	1929	1613	1070	2178	1549	
1947			1888	2565	2220	1593	1764	2223	1315	1563	1510	
1948	1025	1500	2752	2985	1977	1293	2121	2260	1083	972	1566	1714
1949				2088	2712	1809	1379	921	823	1573	843	1660
1950	2072	793		2144	1855	1497	1455	1370	1055	1060	1075	
1951	1630	849	1993	2309	1900	1967	1567	2050	1265	1768	1348	2123
1952	1467	1102	2015	1783	2273	2087	1765	1709	1030	569	860	928
1953	1418	1815	1734	1954	1966	1759	1491	1777	1021	1393	1253	1363
1954	1096	1257	2341	2217	2021	2154	1672	2081	1699	1368	1087	1032
1955	836	1868	2427	2874	2508	2032	1551	982	542	748		
1956				2124	1626	1365	1275	1299	952	1289	1023	959
1957	1234	1204	2034	2714	2678	1572	1856	2360	1064	1459	1817	1395
1958	1248	1443	2351	2558	1881	1888	1559	1322	1498	1148	1406	734
1959	1361	1950	2390	2407	2561	1806	1342	983	1645	1684	1518	1082
1960	887	1828	1766	2595	2698	1860	1627	1961	1521	1661	1799	1103
1961	622	1390	1237	2788	2543	1803	1616	1629	1229	2158	2033	1732
1962	1545	1753	2485	2136	2491	1617	1451	1640	1139	1681	916	558
1963	1065	1779	1575	2477	1982	1908	1813	1590	1043	1264	1062	888
1964	1605	1175	2010	3160	2566	1930	1354	1897	1573	943	1975	2020
1965	1024	2136	2350	3280	2200	1550	1055	969	1036	510	690	579
1966	886	941	1299	1345	1076	1659	1797	1302	1234	1057	1048	1160
1967	1624	1870	2085	2795	1910	1116	642	636	791	959	881	1626
1968	866	500	1472	2371	2040	1250	980	1278	1036	697		
1969				735	1397	1582	1087	1087	943	1194	707	903
1970	1316	929	2436	2383	1939	1495	1276	931	1334	1128	1226	1210
1971	1697	1918	1962	1974	1864	1142	876	659	1177	1051	994	1629
1972	1857	940	1551	2042	1343	961	711	577	782	784	761	988
1973	739	568	1576	2041	1919	1581	1336	1656	1473	1566	1665	1446
1974	1442	1046	2726	2395	1893	1422	1679	1175	1060	1109	997	1433
1975	1568	1756	2634		2039E	1422	779	627	439	787	937	758
1976	572	823	1131	1656	1488	1035	603	651	495	499	511	320
No. of Yrs.	26	26	27	21	35	37	38	40	40	35	29	26
Average	1282	1197	2005	2287	2131	1727	1458	1484	1235	1288	1209	1205
Std. Dev.	434	474	583	351	439	410	389	502	416	464	406	457
Maximum	2072	1950	2852	2985	2823	2809	2121	2360	2226	2178	2031	2123
Minimum	531	390	236	1656	1076	961	603	627	439	499	511	320

BEAR RIVER BIRD REFUGE — MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1967					79.7	88.9	100.7	96.6	85.7	66.6	57.4	
1968				67.7	78.3	88.4	94.9	86.4	78.5	63.2		
1969				69.7	83.2	84.4	94.3	93.0	82.2	58.7		
1970				62.9	78.3	87.7	93.0	92.7	75.4	59.0		
1971				67.2	78.0	89.7	95.3	94.3	82.2	64.0		
1972				67.4	82.1	90.3	94.1	93.2	79.1	65.4		
1973				66.6	79.6	86.1	92.2	89.3	78.1	65.5		
1974				67.1	78.5	88.1	92.5	87.0	80.4	66.3		
1975				73.0	82.3	96.0	90.0	81.5				
1976				67.3	82.1	84.9	94.5	89.3	80.8	62.7		
No. of Yrs.				9	10	10	10	10	9	9	1	
Average				67.6	80.2	88.5	94.2	90.3	80.3	63.5		
Std. Dev.				2.67	2.01	3.29	2.79	4.51	2.96	2.94		
Maximum				73.0	83.2	96.0	100.7	96.6	85.7	66.6		
Minimum				62.9	78.3	84.4	90.0	81.5	75.4	58.7		

BEAR RIVER BIRD REFUGE — MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1967					51.7	59.7	68.4	66.8	58.7	46.9	41.1	
1968				40.0	49.9	56.3	62.9	58.0	51.2	46.3		
1969				43.9	54.6	56.6	65.3	64.2	56.9	42.0		
1970				38.8	49.3	58.4	63.6	62.6	48.4	41.0		
1971				43.0	50.7	59.0	64.5	66.0	50.3	44.5		
1972				41.1	50.9	60.0	62.4	63.2	52.4	47.3		
1973				41.5	51.3	57.8	62.7	61.9	51.2	44.5		
1974				42.9	49.1	58.7	61.9	58.9	51.7	44.5		
1975					45.7	54.9	66.7	60.6	54.2			
1976				41.0	51.3	54.9	63.6	58.5	54.6	42.0		
No. of Yrs.				8	10	10	10	10	10	9	1	
Average				41.5	50.5	57.6	64.2	62.1	53.0	44.3		
Std. Dev.				1.69	2.27	1.86	2.07	3.08	3.14	2.27		
Maximum				43.9	51.7	60.0	68.4	66.8	58.7	47.3		
Minimum				38.8	45.7	54.9	61.9	58.0	48.4	41.0		

MONTHLY EVAPORATION

BRYCE CANYON N.P. 1 S — Lat: 37° 38' — Long: 112° 11' — Elev: 7950 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1972					7.45	6.29	10.16	5.78				
1973						6.16	6.47	6.87	5.87E			
1974						8.34E	6.91	6.60	5.78E			
1975						7.08	6.69	8.08E	5.90E			
1976					6.48E	10.61E	9.54E	8.74	4.90E			
No. of Yrs.					2	5	5	5	4			
Average					6.96	7.70	7.95	7.21	5.61			
Std. Dev.					.686	1.845	1.751	1.186	.478			
Maximum					7.45	10.61	10.61	8.74	5.90			
Minimum					6.48	6.16	6.47	5.78	4.90			

BRYCE CANYON N.P. 1 S

MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1972					1088	831	908E					
1973					1833	1520	1434	770	995			
1974						1041	744	676	736			
1975					1262	1040	692	670	699E			
1976					970	1156	763	933	744			
No. of Yrs.					4	5	5	4	4			
Average					1288	1118	908	762	794			
Std. Dev.					382	254	305	123	136			
Maximum					1833	1520	1434	922	995			
Minimum					970	831	692	670	699			

BRYCE CANYON N.P. 1 S

MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1972					67.2	75.0	82.4	74.0				
1973						83.8	89.2		77.2			
1974						78.3	78.9	76.3	70.2			
1975					63.1	72.4	80.8	78.9	73.2			
1976					69.2	79.7	80.1	79.2	68.1			
No. of Yrs.					3	5	5	4	4			
Average					66.5	77.8	82.3	77.1	72.2			
Std. Dev.					3.11	4.38	4.07	2.44	3.95			
Maximum					69.2	83.8	89.2	79.2	77.2			
Minimum					63.1	72.4	80.1	74.0	68.1			

BRYCE CANYON N.P. 1 S

MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1972					36.4	47.8	51.5	48.2				
1973						49.7	54.5		41.8			
1974						47.8	50.3	45.3	40.4			
1975					37.5	43.6	53.4	46.5	41.4			
1976					40.8	42.2	49.4	43.7	42.5			
No. of Yrs.					3	5	5	4	4			
Average					38.2	46.2	51.8	45.9	41.5			
Std. Dev.					2.29	3.17	2.12	1.90	.88			
Maximum					40.8	49.7	54.5	48.2	42.5			
Minimum					36.4	42.2	49.4	43.7	40.4			

MONTHLY EVAPORATION

CHARLESTON Lat: 40° 30' Long: 111° 29' Elev: 5600 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1965									4.47	3.14	1.20	
1966					7.41	7.67	7.97	7.70	4.39	2.79	.72	
1967					5.59	6.30		6.54	4.95	3.59		
1968					6.72	7.43	8.29	6.64	4.93	3.38	1.39	
1969					8.96	6.46	7.78	6.85	5.11	1.52		
1970					7.12	6.31	7.41	7.38	5.34	1.48		
1971				5.27	6.12	7.35	7.81	6.33	5.48	1.86		
1972				6.03	7.67	7.45	8.34	7.21	5.64			
1973					7.42	7.88	8.31	8.01	4.72	3.92		
1974					8.27	8.17	9.42	8.28	6.00	3.15		
1975						6.69	6.78	6.21	4.46			
1976						7.79	8.11	7.28	4.55			
No. of Yrs.				2	9	11	10	11	12	9	3	
Average				5.65	7.25	7.23	8.02	7.13	5.00	2.76	1.10	
Std. Dev.				.537	1.032	.672	.686	.683	.522	.915	.345	
Maximum				6.03	8.96	8.17	9.42	8.28	6.00	3.92	1.39	
Minimum				5.27	5.59	6.30	6.78	6.21	4.39	1.48	.72	

MONTHLY WIND MOVEMENT

CHARLESTON

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1965									1509	866	1297	814
1966	772	248	1050	2004	1813	1646	744	1109	773	1035	1070	460
1967	906	648	3088	3100	1303	850		706	682	1216		
1968				935	1639	1009	764	1123	955	1329	2499	
1969				1912	1737	899	490	461	780	409		
1970					1750	715	382	666	1316	904	817	576
1971				2673	1652	1071	525	627	1398	724		
1972				2268	1366	869	682	847	1458			
1973					1305	984	711	877	1025	1468		
1974					1950	884	703	804	712	602		
1975						1089	348	454	355			
1976					1241	1193	787	1121	727			
No. of Yrs.	2	2	2	6	10	11	10	11	12	9	4	3
Average	839	448	2069	2149	1576	1019	614	800	974	950	1421	617
Std. Dev.	95	283	1441	741	251	247	163	245	369	347	745	180
Maximum	906	648	3088	3100	1950	1646	787	1123	1509	1468	2499	814
Minimum	772	248	1050	935	1241	715	348	461	355	409	817	460

MONTHLY EVAPORATION

DRAPER Lat: 40° 31' Long: 111° 49' Elev: 4515 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1965						7.26			5.68	3.66		
1966				5.16	9.07	10.19	12.69	9.22	6.88			
1967				5.09	5.75	5.72	8.81	8.64	5.73	4.55		
1968					6.48	7.23	10.96	6.70	6.16			
No. of Yrs.				2	3	4	3	3	4	2		
Average				5.12	7.10	7.60	10.82	8.18	6.11	4.10		
Std. Dev.				.049	1.745	1.870	1.944	1.320	.555	.629		
Maximum				5.16	9.07	10.19	12.69	9.22	6.88	4.55		
Minimum				5.09	5.75	5.72	8.81	6.70	5.68	3.66		

DRAPER

MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1965						1210			1222	627		
1966				1042	1331	1138	1475	677	941			
1967				2089	835	618	375	399	549	946		
1968					988	681	921	917	817			
No. of Yrs.				2	3	4	3	3	4	2		
Average				1566	1051	912	924	664	882	787		
Std. Dev.				740	254	305	550	259	279	226		
Maximum				2089	1331	1210	1475	677	1222	946		
Minimum				1042	835	618	375	399	549	627		

DRAPER

MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1965								84.4	72.0	66.0		
1966				68.0	80.8		89.8	88.2	79.2			
1967				61.2	74.7	81.7	93.8	92.4	80.8	64.3		
1968					76.1	87.0	93.7	85.1	75.6			
No. of Yrs.				2	3	2	3	4	4	2		
Average				64.6	77.2	84.4	92.4	87.5	76.9	65.2		
Std. Dev.				4.81	3.20	3.75	2.28	3.65	3.92	1.20		
Maximum				68.0	80.8	87.0	93.8	92.4	80.8	66.0		
Minimum				61.2	74.7	81.7	89.8	84.4	72.0	64.3		

DRAPER

MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1965								60.0	48.3	41.5		
1966				41.8	48.7		61.8	58.7	55.7			
1967				39.6	47.9	57.4	64.2	62.6	55.2	45.1		
1968					46.8	54.7	60.9	57.1	49.2			
No. of Yrs.				2	3	2	3	4	4	2		
Average				40.7	47.8	56.1	62.3	59.6	52.1	43.3		
Std. Dev.				1.56	.95	1.91	1.71	2.33	3.89	2.55		
Maximum				41.8	48.7	57.4	64.2	62.6	55.7	45.1		
Minimum				39.6	46.8	54.7	60.9	57.1	48.3	41.5		

MONTHLY EVAPORATION

FARMINGTON WAREHOUSE Lat: 40° 59' Long: 111° 53' Elev: 4329 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1963							9.29	8.80	4.61	2.97		
1964												
1965												
1966								8.44	5.08			
1967						5.50	8.94	9.19	4.85			
No. of Yrs.						1	2	3	3	1		
Average							9.12	8.81	4.85			
Std. Dev.							.247	.375	.235			
Maximum							9.29	9.19	5.08			
Minimum							8.94	8.44	4.85			

FARMINGTON WAREHOUSE — MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1963							640	796	534	496	426	
1964												
1965												
1966								799	694			
1967				1057		771	684	848	645			
No. of Yrs.				1		1	2	3	3	1	1	
Average							662	814	624			
Std. Dev.							31	29	82			
Maximum							684	848	694			
Minimum							640	796	534			

FARMINGTON WAREHOUSE — MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1963							91.0	90.8	80.6			
1964												
1965												
1966								88.7	76.8			
1967								92.7				
No. of Yrs.							1	3	2			
Average								90.7	78.7			
Std. Dev.								2.00	2.69			
Maximum								92.7	80.6			
Minimum								88.7	76.8			

FARMINGTON WAREHOUSE — MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1963							62.3	63.7	56.6			
1964												
1965												
1966								60.4	55.1			
1967								62.4				
No. of Yrs.							1	3	2			
Average								62.2	55.9			
Std. Dev.								1.66	1.06			
Maximum								63.7	56.6			
Minimum								60.4	55.1			

MONTHLY EVAPORATION

FERRON — Lat: 39° 06' — Long: 111° 08' — Elev: 6000 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1948				4.95	7.35	6.22	7.40	6.06	6.14	3.81		
1949				6.24	6.09	6.43	6.76	5.99	5.24	2.48		
1950				6.24	6.40	10.37	7.14	8.35	6.04	5.30		
No. of Yrs.				3	3	3	3	3	3	3		
Average				5.81	6.61	7.67	7.10	6.80	5.80	3.86		
Std. Dev.				.745	.657	2.338	.322	1.343	.493	1.411		
Maximum				6.24	7.35	10.37	7.40	8.35	6.14	5.30		
Minimum				4.95	6.09	6.09	6.76	5.99	5.24	2.48		

FERRON

MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1949								2226		1630		
1950	1911					1442	572		934			
No. of Yrs.	1					1	1	1	1	1		
Average												
Std. Dev.												
Maximum												
Minimum												

MONTHLY EVAPORATION

FISH LAKE RANGER STATION Lat: 38° 35' Long: 111° 41' Elev: 8600 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1950										4.99		
1951							6.78	5.32		3.70		
No. of Yrs.							1	1		2		
Average										4.34		
Std. Dev.										.912		
Maximum										4.99		
Minimum										3.70		

FISH LAKE RANGER STATION

MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1950										1999		
1951							1342	1255	1608	1923		
No. Of Yrs.							1	1	1	2		
Average										1961		
Std. Dev.										54		
Maximum										1999		
Minimum										1923		

MONTHLY EVAPORATION

FISH SPRINGS REFUGE Lat: 39° 51' Long: 113° 24' Elev: 4335 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1962									11.70	7.97		
1963						11.76	19.68	14.97	8.95	7.63		
1964					12.47	12.07	18.41	13.98	11.81			
1965						13.35	15.73	12.78	8.76			
1966					14.39	12.79	16.22	12.71	8.94	4.74		
1967				7.26	8.45	8.63	13.51	13.20	8.44	6.31		
1968						13.21	14.46	10.67	9.27	4.78		
1969												
1970						11.67	14.12	13.93				
1971					8.63	11.24	14.86	12.06	9.71			
1972					10.80	11.70	15.65	12.25	8.61	4.27		
1973					12.28	14.98	15.72	15.73	10.83			
1974						19.04	18.36	15.44	11.98			
1975						13.34E	15.98	15.45	10.17E			
1976					13.06E	15.32E	16.95E	14.99	9.98			
No. of Yrs.				1	7	13	13	13	13	6		
Average					11.44	13.01	16.13	13.70	9.93	5.95		
Std. Dev.					2.249	2.486	1.811	1.572	1.275	1.593		
Maximum					14.39	19.04	19.68	15.73	11.98	7.97		
Minimum					8.45	8.63	13.51	10.67	8.44	4.27		

MONTHLY WIND MOVEMENT

FISH SPRINGS REFUGE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1962									2478	2910	2220	1700
1963	2062	2304	3492	3105	2559	3024	3260	2786		2544	2609	2068
1964	3530	3670	4022	3107			2800	2998	3041	2030	2953	3624
1965	3198	3280	2869	3763	3033	2323						
1966				2895	3457	2679	3221	2453	2553	2232	2698	2326
1967	3614	3075	4508	4350	2933	2608	2193	2101	2177	2648	2186	3929
1968	2368	2226	3108	3753	3318	2963	2915	3088	2816	2630	2926	2953
1969	3515	2664	3502	4008	3949	2679	2671	2435				
1970					3389	2938	2957	2727	3321	2936	2927	2284
1971	3014	2924		2599	1187	1088	2019		3465	3215	2699	3877
1972	2981	2304	3423	4307	3506	3332	3370	3149	3295	3424	2928	3382
1973	2728	2170	4006	4312	3369	2138	2865	3361	3112	3435	3395	3406
1974	3716	3237	4476	4646	3350	3520	3486	2533	2496	2096	2380	3427
1975	3124	3631	4792	4155	3784	3276	2948	2560	2049		1927	1888
1976	2115	2129	3180	3029	3060	3709	2705	3094	2490	2172	1589	1552
No. of Yrs.	12	12	11	13	13	13	13	12	12	12	13	13
Average	2997	2801	3761	3695	3146	2790	2878	2774	2774	2689	2572	2801
Std. Dev.	574	576	638	670	690	684	426	371	468	502	494	859
Maximum	3716	3670	4792	4646	3949	3709	3486	3361	3465	3435	3395	3877
Minimum	2062	2129	2869	2599	1187	1088	2019	2101	2049	2030	1589	1552

FISH SPRINGS REFUGE — MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1962									77.3	61.8		
1963						79.3	86.3	86.6	77.7	67.1		
1964					76.7	80.3	89.5	85.1	78.8			
1965						78.9	87.3	84.5	71.4			
1966					81.8	86.1	90.8	88.0	79.6	62.5		
1967				63.1	75.7	80.3	90.8	88.1	78.5	62.8		
1968						84.7	91.9	83.4	75.4	64.8		
1969												
1970												
1971					24.9	84.5	88.5	86.9	73.7			
1972					76.5	82.9	87.7					
1973					77.6	83.4	88.9	86.8	75.6			
1974					79.3	85.9	89.2	87.1	81.4			
1975						80.6	89.5	85.1	79.3			
1976				59.5	74.4	80.5	88.8		78.9			
No. of Yrs.				2	8	12	12	10	12	5		
Average				61.3	70.9	82.3	89.1	86.2	77.3	63.8		
Std. Dev.				2.545	18.710	2.598	1.581	1.556	2.809	2.155		
Maximum				63.1	81.8	86.1	91.9	88.1	81.4	67.1		
Minimum				59.5	24.9	78.9	86.3	83.4	71.4	61.8		

FISH SPRINGS REFUGE — MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1962									49.5	41.4		
1963						51.1	56.6	59.5	54.7	44.8		
1964					45.3	50.6	57.5	56.5	48.4			
1965						51.1	58.3	57.1	48.8			
1966					49.5	55.9	62.0	60.3	55.1	42.7		
1967				38.4	48.4	53.8	62.8	61.4	53.7	39.9		
1968						55.0	59.9	55.1	47.0	39.1		
1969												
1970												
1971					48.6	55.9	62.5	63.3	50.0			
1972					50.4	59.5	60.4					
1973					49.2	54.3	59.4	60.5	49.1			
1974					48.5	57.1	59.7	56.6	49.7			
1975						52.2	61.5	56.2	50.9			
1976				39.1	49.2	52.9	60.5		53.5			
No. of Yrs.				2	8	12	12	10	12	5		
Average				38.8	48.6	54.1	60.1	58.7	50.9	41.6		
Std. Dev.				.495	1.498	2.712	1.950	2.706	2.697	2.271		
Maximum				39.1	50.4	59.5	62.8	63.3	55.1	44.8		
Minimum				38.4	45.3	50.6	56.6	55.1	47.0	39.1		

MONTHLY EVAPORATION

FLAMING GORGE Lat: 40° 56' Long: 109° 25' Elev: 6270 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1958						11.06	10.31	8.91	6.78			
1959							10.32	8.75	5.55			
1960						10.08	9.34	10.90	6.47			
1961						9.82	9.97	7.00	4.52			
1962					6.07	8.08	9.82	9.19	6.74	4.34		
1963					7.35	9.68	10.99	7.58	5.85	4.40		
1964					7.65	6.78	10.50	9.08	6.72	4.06		
1965					5.19	6.41	7.80	7.56	4.48	3.42	1.93	
1966						9.55	10.51	8.60	5.16			
1967						5.89	8.47	8.18	5.63			
1968						9.06	9.57	6.71	5.96			
1969						6.66	10.90	9.22	6.33			
1970					6.98	7.96	9.06	8.83	6.18			
1971					6.01	7.94	10.55	9.50				
1972					7.55E	7.62	10.55	8.79	5.70			
1973						9.44	8.91	9.28E	4.99E			
1974						9.85	9.88	9.41	6.22			
1975						7.82	9.49	9.24	6.88E			
1976					6.52	8.86E	9.75	9.87	6.01			
No. of Yrs.					8	18	19	19	18	4	1	
Average					6.67	8.48	9.83	8.77	5.90	4.06		
Std. Dev.					.870	1.455	.842	1.008	.742	.449		
Maximum					7.65	10.66	10.99	10.90	6.88	4.40		
Minimum					5.19	5.89	7.80	6.71	4.48	3.42		

MONTHLY WIND MOVEMENT

FLAMING GORGE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1958						1939	1618	1223	1536	1618	1505	1366
1959	1882	2040	2179	2079	2058	1755	1190	1449	1355	1464	1637	1737
1960	1703	1773	2011	2316	1729	1530	949			1219		
1961						1431	1284	977	1177	1654	2025	2599
1962	386	2149	2437	1793	1443	922	1059	1179	949	910	1344	949
1963		2197	2954	2382	1764	1978	1755	1740	1412	1420	1789	1890
1964	2603	2797	3114	2554	2081	1544	1266	1651	1343	1038	1860	2886
1965	3231	2567	2365	2970	1817	1427	1253	1140		935	1213	1633
1966	1822	1530	1936	1712	1850	1798	1515	1102	1077	1569	2226	2226
1967	3340	2529	2741	2871	2094	1505	1096	1082	1312	1809	1943	2747
1968	2445	1919	2383	2079	2071	1559	1284	1456	1398	1654	2331	3146
1969	3297	2238	1980	2237	1764	1408	1681	1479	1462	1901	2010	1860
1970	2208	1817	2408	2469	1448	1214	826	738	791	1248	1892	2123
1971	2114	2269	2751	2462	1320	1456	1322	1298	1342	1776	1939	2068
1972	2492	2052	2719	1996	1770	1524	1709	1353	1586	1579	2408	2422
1973	2236	1848	2464	2463	1940	1382	803	997	738E	1534	2389	2408
1974	2572	2315	2326	2655	2108	1485	1405	1390	1089	1597	2114	2567
1975	2330	2568	2678	2614	2091	1720	1453	1460	1039	2330	3486	2133
1976	2098	2319	2857	2391	1452	1752	1439	1692	1258	1445E	1742	1620
No. of Yrs.	16	17	17	17	17	19	19	18	17	19	18	18
Average	2297	2172	2488	2355	1812	1543	1311	1300	1227	1511	1992	2132
Std. Dev.	715	334	346	345	264	248	281	269	248	344	501	561
Maximum	3340	2797	3114	2970	2108	1978	1755	1740	1586	2330	3486	3146
Minimum	386	1773	1936	1712	1320	922	803	738	738	910	1213	949

FLAMING GORGE MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1958						78.5	77.9	78.9	69.9			
1959							83.0	76.5	64.5			
1960						79.9		79.8	71.6			
1961						79.0		79.1				
1962						72.4	75.7	74.6	67.7	55.5		
1963					73.3	76.7	81.6	76.9	73.5	63.5		
1964					68.0	70.8	81.3	75.9	68.1			
1965					68.0	74.2	80.9	78.9	63.6	59.6	48.1	
1966						76.5	82.8	80.7	73.5			
1967						73.9	82.5	80.3	72.9			
1968						79.4	83.0	69.7	70.2			
1969					78.2	76.8	83.8	78.9	67.7			
1970												
1971						75.8		80.7				
1972						77.7		79.2				
1973								82.7				
1974							82.2	79.8				
1975									70.8			
1976						76.5	79.4		69.9			
No. of Yrs.					4	14	12	16	13	3	1	
Average					71.9	76.3	81.2	78.3	69.5	59.5		
Std. Dev.					4.90	2.68	2.40	3.06	3.15	4.00		
Maximum					78.2	79.9	83.8	82.7	73.5	59.6		
Minimum					68.0	70.8	75.7	69.7	63.6	63.5		

FLAMING GORGE MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1958						51.0	51.8	53.6	45.6			
1959							55.8	49.4	44.2			
1960						50.8		50.1	48.6			
1961						51.5		55.8				
1962						44.1	47.8	45.7	39.9	31.6		
1963					44.3	47.1	54.0	54.2	47.6	39.7		
1964					39.2	44.7	51.7	47.7	39.8			
1965					41.7	48.4	55.3	52.0	40.3	35.6	33.0	
1966						42.4	52.4	48.3	49.2			
1967						51.2	62.5	58.0	49.8			
1968						52.1	60.3	50.0	45.0			
1969					47.0	51.3	55.2	52.3	44.4			
1970												
1971						48.5		54.1				
1972						51.5		51.7				
1973								53.1				
1974							53.4	49.4				
1975									43.5			
1976						45.6	53.0		43.6			
No. of Yrs.					4	14	12	16	13	3	1	
Average					43.1	48.6	54.4	51.6	44.7	35.6		
Std. Dev.					3.36	3.27	3.91	3.20	3.42	4.05		
Maximum					47.0	51.5	62.5	58.0	49.8	39.7		
Minimum					39.2	42.4	47.8	45.7	39.8	31.6		

MONTHLY EVAPORATION

FORT DUCHESNE Lat: 40° 17' Long: 109° 52' Elev: 4990 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1943				6.61	8.05	7.73	8.51	6.66	6.15	3.46		
1944				3.79	7.62	7.31	8.54	7.75	5.57	2.49		
1945				5.43	7.67	7.53	8.22	7.20	5.80	3.20		
1946					7.65	9.81	9.06	7.39	6.16	2.72		
1947					7.54	6.07	8.69	6.66	6.46			
1948						7.15	8.78	6.73	5.44			
1949					5.88	6.71	7.85	6.77	6.09			
1950					8.23	7.72	7.15	6.81		3.95		
1951					7.48	6.97	9.33	6.86	6.12	3.06		
1953					7.21	9.69	8.86	6.71	5.91			
1954					8.07	8.76	8.94	6.21				
1955									4.50	3.35		
1956					7.18	8.42	8.53	7.57	5.66	2.99		
1957					5.75	6.65	7.87	6.44	5.24	2.49		
1958				5.44	7.40	8.83	8.72	8.03	5.44	3.72		
1959						8.50	8.98	7.34	4.80	3.00		
1960						8.65	9.32	8.46	5.62	3.30		
1961				5.28	7.84	9.55	9.39	7.64	4.11	2.65		
1962				5.44	6.42	8.06	8.75	8.05	5.83	3.07		
1963					7.56	8.18	9.28	6.90	4.92	3.22		
1964					7.16	7.25	9.11	7.92	5.85	3.71		
1965					6.42	6.03	7.52	6.57	3.89			
1966					7.47	7.83	8.44	7.77	4.57			
1967				5.83	7.25	6.29	9.45	8.30	5.14	4.33		
1968				3.81	7.12	9.11	9.72	6.50	5.67	3.13		
1969				5.56	9.69	7.63	8.70	8.00	5.40			
1970				5.81	8.75	8.90	8.59	8.06	6.06			
1971					6.98	9.10	9.59	9.19	6.91	3.71		
1972					7.99E	8.78E		8.72E				
1973					7.98	9.12	9.04E	8.66	5.99E	4.10E		
1974						10.46	8.93E	10.02E	6.98E			

MONTHLY EVAPORATION CONTINUED

FORT DUCHESNE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1975						7.33E	9.28E	8.19E	6.40E			
1976					8.46	11.27E		11.20E				
No. of Yrs.				10	27	32	30	32	29	20		
Average				5.30	7.51	8.17	8.77	7.67	5.61	3.28		
Std. Dev.				.874	.830	1.263	.599	1.101	.749	.517		
Maximum				6.61	9.69	11.27	9.72	11.20	6.98	4.10		
Minimum				3.79	5.75	6.03	7.15	6.21	3.89	2.49		

FORT DUCHESNE — MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1943				1925	2368	1667	964	807	858	969		
1944				1245	1590	1120	960	910	740	565		
1945				1410	1660	1340	1078	871	1542	959		
1946			917	856	777	663	1007	1298	957			
1947			1940	2340	1720	1208	810	904	1028	631	1191	
1948	1066	1256	1730	2310	2112	1118	1218	1049	873	798	1076	1032
1949					1482	1188	939	728	808	596		240
1950	380	266	1987		1880	1380	1151	924	1060			
1951				1905	1851	1382	970	600	632	655	711	
1952												
1953					1533	1426	806	794	746	843	560	725
1954	483	1069	1830	1943		1040	547	333	255	397		
1955												
1956					920	634	548	619	424	395		
1957					975	591	471	420	465	328		
1958				1359	843	775	492	361	390	711		
1959					1236	937	845	751	691	793		
1960						843	829	602	694			
1961				1336	1116	764	600	473	501	646		
1962				1130	834	669	566	583	619	554		
1963					1029	938	767	651	393	453		
1964					1132	814	545	821	797	709		
1965					1213	882	792	731	837	638		
1966					1197	916	601	560	438			
1967				2341	1851	1105	933	731	792	1055		
1968				1430	1525	1390	800	897	923	599		
1969				1641	1460	1448	781	749	823	1021		
1970				2241	1753	1026	869	840	1160	795		
1971					1128	1027	746	746	979	907		
1972				1876	1104	1139	1137E	824E	1091	493		
1973				1489	1072	1025	694	802	757	634		
1974					1959	1084	784	963	879	612		

FORT DUCHESNE — MONTHLY WIND MOVEMENT CONTINUED

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1975						1233	839	934	684			
1976					1975	2307E	1738	1618				
No. Of Yrs.	3	3	5	17	29	32	32	32	31	26	4	3
Average	643	863	1680	1693	1424	1087	838	778	769	683	885	666
Std. Dev.	369	526	438	459	430	351	256	254	268	196	298	399
Maximum	1066	1256	1987	2341	2368	2307	1738	1618	1542	1055	1191	1032
Minimum	380	266	1730	856	777	591	471	333	255	328	560	240

FORT DUCHESNE

MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1967							91.9	88.5	79.5	65.6		
1968				58.8	72.6	83.8	90.9	80.4	74.8	59.9		
1969				67.8	80.4	80.0	89.1	90.4	80.9			
1970						84.4	90.6	90.0	76.5			
1971					74.3	83.9	90.2	89.3	75.3	61.8		
1972					79.6	86.3	89.4	88.5	78.3	67.7		
1973					77.8	85.2	91.9	89.5	78.4	68.6		
1974						90.3	93.1	89.7	81.8			
1975						83.6	95.9	89.7	82.1			
1976					77.6	80.0	93.2	93.3				
No. of Yrs.				2	6	9	10	10	9	5		
Average				63.3	77.1	84.2	91.6	88.9	78.6	64.7		
Std. Dev.				6.36	3.03	3.13	2.06	3.29	2.70	3.76		
Maximum				67.8	80.4	90.3	95.9	93.3	82.1	68.6		
Minimum				58.8	72.6	80.0	89.1	80.4	74.8	59.9		

FORT DUCHESNE

MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1967							56.7	57.0	49.7	41.7		
1968				34.8	43.9	51.1	55.4	52.8	43.9	37.7		
1969				54.1	50.7	53.4	57.2	57.7	50.0			
1970						52.3	57.9	58.8	43.8			
1971					43.3	51.1	55.2	55.0	44.0	36.8		
1972					43.6	53.9	56.0	55.3	45.6	43.0		
1973					43.3	48.9	54.4	54.3	44.5	39.8		
1974						48.5	57.1	48.9	43.4			
1975						47.9	58.4	51.6	45.8			
1976					46.3	46.3		51.0				
No. of Yrs.				2	6	9	9	10	9	5		
Average				44.5	45.2	50.4	56.5	54.2	45.6	39.8		
Std. Dev.				13.65	2.93	2.62	1.32	3.16	2.52	2.61		
Maximum				54.1	50.7	53.9	58.4	58.8	50.0	43.0		
Minimum				34.8	43.3	46.3	54.4	48.9	43.4	36.8		

MONTHLY EVAPORATION

GREEN RIVER Lat: 39° 00' Long: 110° 09' Elev: 4071 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1948				8.40	12.05	11.44	13.85	10.75	8.55	4.54		
1949							12.03	11.30				
1950					10.87			10.19	8.04			
1951						9.60	10.46	7.81	5.77	3.39		
1952					8.13	9.11	8.60	7.08	5.60	3.90		
1953					7.73	10.58	8.81	7.41	6.05	3.24		
1954					7.96	8.53	9.46	9.08	5.20	3.51		
1955					10.27	10.24	10.10	8.16	6.22	4.93		
1956					9.64	11.15	9.17	7.90	6.06	4.51		
1957					6.59	8.67	7.90	6.00	5.38	3.78		
1958					8.50	10.06	10.50	6.94	5.65			
1959						9.63	10.78	9.66	4.32			
1960					8.18	8.02		5.92	4.55			
1961					4.49	5.87	6.58	8.56	5.12			
1962				7.47	7.48	9.11	8.84	7.99	5.30	3.34	1.60	
1963				6.17	8.39	8.86	9.19	7.29	5.11	3.18		
1964				5.86	7.73	7.70	9.47	7.61	5.48	3.79		
1965				5.19	7.39	6.37	7.85	6.77	4.90	2.90		
1966				6.37	7.72	8.76	8.76	8.78	8.20	5.18		
1967				6.66	6.79	6.88	8.33	8.33	5.71	4.39		
1968				4.92	7.33	8.91	8.30	6.20	6.10	2.87		
1969					8.90	8.74	9.02	8.06	6.12	2.77		
1970				6.05	9.69	8.97	9.60	8.10	6.28	3.23		
1971				6.68	8.27	10.52	10.19	8.54	6.45	3.68		
1972				7.40	9.76	9.64	11.24	8.99	6.85	2.36		
1973				6.42E	7.11	8.65						
1974										4.77E		
1975				6.88E		10.16E	9.86E	8.70	7.48	3.71E		
1976				6.62E	8.26	11.35E			4.76			

GREEN RIVER MONTHLY EVAPORATION CONTINUED

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
No. of Yrs.				14	24	26	24	26	26	21	1	
Average				6.51	8.30	9.14	9.54	8.16	5.97	3.71		
Std. Dev.				.900	1.554	1.416	1.506	1.348	1.099	.765		
Maximum				8.40	12.05	11.44	13.85	11.30	8.55	5.18		
Minimum				4.92	4.49	5.87	6.85	5.92	4.32	2.36		

GREEN RIVER MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1949				1983	1808	1218	1065	661	695	571		
1950								752	702			
1951						1105	744	416	260	342		
1952					864	852	292	260	296	146		
1953					1478	955	409	382	251	334	342	
1954					537	654	506	509	390	282		
1955					2117	1229	502	404	533	639		
1956					1648	1009	525	430	264	508		
1957					1156	648			163	297		
1958					1212	965	475	332	262			
1959						826	442	357	226			
1960					1430	757	315	435	235			
1961					1608	766	492	359	346			
1962					1041	889	703	609	423	313	270	
1963				1658	887	1014	540	401	221	145		
1964				1796	1183	621	470	536	461	181		
1965				1132	922	465	630	361	436	237		
1966				1319	857	792	497		354	541		
1967				1834	975	760	437	496	352	532		
1968				1299	984	729	546	480	459	309		
1969					716	714		406	455	506		
1970				1746	1108	913	608	437	659	501		
1971				1397	1368	959	601	512	697	788		
1972				1690E	1085	961	872	671	722	431		
1973				1237E	662	546	490					
1974												
1975				1585E	1095E	977	590	503	460	580		
1976				1285E	868	1194E			272			

GREEN RIVER MONTHLY WIND MOVEMENT CONTINUED

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
No. of Yrs.				13	24	26	23	23	26	20	2	
Average				1535	1150	866	554	466	407	409	306	
Std. Dev.				271	380	201	170	119	171	176	51	
Maximum				1983	2117	1229	1065	752	722	788	342	
Minimum				1132	537	465	292	260	163	145	270	

GREEN RIVER MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1958					82.2	88.0	92.1	86.8	84.2			
1959						90.0	93.4	89.2	82.7			
1960				67.7	78.5	92.7	97.8	94.0	86.0			
1961							94.5	90.5				
1962				74.1	76.4	82.9	89.7	88.1	80.9	69.2	52.1	
1963				65.8	82.4	84.5	90.4	89.4	82.5	69.0		
1964				65.2	75.9	83.9	92.9	87.6	79.2	66.6		
1965				65.6	76.4	83.8	90.7	89.0	74.4	65.2		
1966				71.1	81.2	85.7	91.5	89.7	84.8	65.4		
1967				69.0	80.8	86.4	94.5	94.0	85.0	67.7		
1968				70.0	81.2	90.0	94.3	88.7	80.8	65.5		
1969					87.8	90.4	97.1	96.9	87.6	63.7		
1970				67.3	83.8	90.8	96.4	95.8	81.3	65.2		
1971				72.1	79.5	88.8	95.6	94.9	80.6	64.8		
1972				72.4	82.9	89.3	93.7	91.2	80.9	68.1		
1973				70.7	81.9	87.5						
1974										71.3		
1975				63.0	75.9	84.7	96.8	90.9	83.0	63.1		
1976				69.1	81.0	87.6			82.1			
No. of Yrs.				14	16	17	16	16	16	13	1	
Average				68.8	80.5	87.5	93.8	91.0	82.3	72.3		
Std. Dev.				3.18	3.27	2.88	2.51	3.12	3.07	7.78		
Maximum				74.1	87.8	92.7	97.8	96.9	87.6	83.0		
Minimum				63.0	75.9	82.9	89.7	86.8	74.4	63.7		

GREEN RIVER MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1958					54.1	51.5	56.4	63.4	52.0			
1959						57.8	62.2	61.8	52.6			
1960				41.6	47.9	56.4	62.0	56.4	52.9			
1961							62.5	64.2				
1962				40.1	42.7	49.6	54.8	52.6	47.5	38.3	27.3	
1963				34.7	46.0	49.9	56.6	57.6	51.5	41.6		
1964				41.6	48.7	54.9	63.9	60.4	50.7	41.6		
1965				42.1	47.5	56.2	62.7	61.0	49.9	42.5		
1966				41.4	50.1	56.7	63.0	62.0	53.9	40.7		
1967				31.1	40.9	48.5	56.5	55.0	48.6	34.6		
1968				32.3	41.5	50.0	55.8	57.4	53.1	40.9		
1969					46.2	43.5	48.6	50.4	42.8	31.0		
1970				31.2	42.2	50.6	57.0	56.9	46.4	37.8		
1971				33.6	41.5	48.6	56.3	57.5	44.5	35.4		
1972				34.9	41.8	50.7	53.9	53.0	45.8	41.3		
1973				34.3	44.0	49.5						
1974												
1975				44.2	53.0	58.3	66.3	59.9	53.5	40.3		
1976				43.8	52.4	55.4			58.4			
No. of Yrs.				14	16	17	16	16	16	12	1	
Average				37.6	46.3	52.2	58.7	58.1	50.3	38.8		
Std. Dev.				4.87	4.46	4.12	4.68	4.01	4.08	3.53		
Maximum				44.2	54.1	58.3	66.3	64.2	58.4	42.5		
Minimum				31.1	40.9	43.5	48.6	50.4	42.8	31.0		

MONTHLY EVAPORATION

GUNNISON SUGAR FACTORY Lat: 39° 09' Long: 111° 49' Elev: 5145 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1962								10.60	8.10	4.63		
1963				5.22	9.26	9.66	11.75	8.10	6.05			
1964							10.95	9.39	7.05			
1965												
1966					8.61	13.43	11.49	11.15	8.68			
1967					8.02	7.97	12.39	8.90	7.15	6.18		
1968						9.71	9.30	5.97	7.05			
1969					6.95	5.80	9.46	7.79	5.13			
1970						6.96	6.90	7.04	4.40			
1971				4.92	6.99	9.39	11.26	8.08	5.41	3.14		
1972				4.78	8.42	7.45	9.28	7.50	5.49			
1973						7.88	8.53	7.96	5.14E			
1974					8.87	9.25	9.27	9.27	6.46	3.47		
1975					6.17	7.19	8.68	8.09	5.72	3.05		
1976				5.39E	6.81	9.23	9.96E	9.63	5.44			
No. of Yrs.				4	9	12	13	14	14	5		
Average				5.08	7.79	8.66	9.94	8.53	6.23	4.09		
Std. Dev.				.278	1.083	1.950	1.549	1.389	1.229	1.326		
Maximum				5.39E	9.26	13.43	12.39	11.15	8.68	6.18		
Minimum				4.78	6.17	5.80	6.90	5.97	4.40	3.05		

MONTHLY WIND MOVEMENT

GUNNISON SUGAR FACTORY

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1962								1770	1581	1331		
1963				2550	2753	2128	1710	1592	1142	1260	1255	
1964							1351	1596	1420			
1965												
1966					1130	1373	769	798	784			
1967					1151	997	737	925	995	1095	608	1098
1968	1130	955	1530	1837	1594	1328	945	854	825			
1969					1091	860	647	497	374			
1970					1454	900	514	477	828		1061	1049
1971	1095	1241	1651	1364	1313	1059	939	704	926	948	784	903
1972	924	964	1421	1213	999	830	863	608	714	753	893	1026
1973	1049	919	1513	1223	1241	821	662	616	736	871	1031	1047
1974	833	870	1403	1343	1184	796	777	715	630	636	833	730
1975	897	1082	1787	1684	1379	1129	810	749	695	914		812
1976	794	1263	1958	1669	1381	1279	904	1044	844	996	969	912
No. of Yrs.	7	7	7	8	12	12	13	14	14	9	8	8
Average	960	1042	1609	1610	1389	1125	894	925	892	978	929	947
Std. Dev.	132	157	204	445	461	377	316	425	314	224	196	130
Maximum	1130	1263	1958	2550	2753	2128	1710	1770	1581	1331	1255	1098
Minimum	794	870	1403	1213	999	796	514	477	374	636	608	730

GUNNISON SUGAR FACTORY — MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1962								89.5	85.1	73.4		
1963				69.9	84.3	77.9	94.6	92.0	88.2			
1964						86.4	97.5	92.5	92.5	83.8		
1965												
1966												
1967					77.0	84.7	95.5	91.9	81.9	67.9		
1968							90.0	85.3	76.9			
1969					74.8	84.7	92.6	91.0	82.4			
1970						85.3	91.5	90.6	76.2			
1971				68.0	76.4	85.9	91.6	90.7	77.3	62.9		
1972				67.4	79.6	86.0	91.5	86.7	75.4			
1973						85.5	90.5	87.9	76.4			
1974					81.0	88.4	90.5	88.1	79.4	65.2		
1975					76.5	83.7	91.8	87.3	80.2	65.5		
1976				70.9	81.4	86.0	91.7	87.0	81.0			
No. of Yrs.				4	8	11	12	13	13	6		
Average				69.1	78.9	85.0	92.4	89.3	81.0	69.8		
Std. Dev.				1.63	3.22	2.63	2.27	2.35	5.11	7.74		
Maximum				70.9	84.3	88.4	97.5	92.5	92.5	83.8		
Minimum				67.4	74.8	77.9	90.0	85.3	75.4	62.9		

GUNNISON SUGAR FACTORY — MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1962								55.7	50.7	33.2		
1963				39.5	48.0	65.4	57.7	58.1	54.1			
1964						52.6	59.7	59.7	56.9	49.5		
1965												
1966												
1967					45.6	47.3	55.8	61.9	47.9	38.3		
1968							59.3	56.3	44.5			
1969					46.5	54.1	60.1	62.7	55.4			
1970						54.5	62.5	61.8	48.0			
1971				42.6	48.1	54.5	60.2	62.1	48.1	41.9		
1972				41.5	47.4	56.5	57.6	57.2	50.3			
1973						52.6	58.5	57.8	47.1			
1974					47.6	55.0	59.8	54.5	48.5	41.6		
1975					44.9	52.8	61.6	56.9	51.1	41.5		
1976				41.7	49.6	52.1	60.0	54.5	54.1			
No. of Yrs.				4	8	11	12	13	13	6		
Average				41.3	47.2	54.3	59.4	58.4	50.5	41.0		
Std. Dev.				1.31	1.50	4.36	1.81	2.94	3.67	5.33		
Maximum				42.6	49.6	65.4	62.5	62.7	56.9	49.5		
Minimum				39.5	44.9	47.3	55.8	54.5	44.5	33.2		

MONTHLY EVAPORATION

HERRIMAN Lat: 40° 31' Long: 112° 02' Elev: 5000 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1964									8.02			
1965							8.82	7.98	5.26			
No. of Yrs.							1	1	2			
Average									6.64			
Std. Dev.									1.952			
Maximum									8.02			
Minimum									5.26			

MONTHLY WIND MOVEMENT

HERRIMAN

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1964				2365	2200				1249	567		
1965							1166	1041	1381			
No. of Yrs.				1	1		1	1	2	1		
Average									1315			
Std. Dev.									93			
Maximum									1381			
Minimum									1249			

MAXIMUM WATER TEMPERATURE

HERRIMAN

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1964					79.6				64.8			
1965							88.7	85.7	70.9			
No. of Yrs.					1		1	1	2			
Average									67.9			
Std. Dev.									4.31			
Maximum									70.9			
Minimum									64.8			

MINIMUM WATER TEMPERATURE

HERRIMAN

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1964					45.3				35.7			
1965							61.5	60.2	47.5			
No. of Yrs.					1		1	1	2			
Average									41.6			
Std. Dev.									8.34			
Maximum									47.5			
Minimum									35.7			

MONTHLY EVAPORATION

HITE Lat: 37° 49' Long: 110° 26' Elev: 3470 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1958					11.42	14.77	14.45	11.67	8.37	4.86		
1959					13.61	14.87	14.38	13.56	9.31			
1960					12.42	14.99	14.96	13.30	8.95			
1961				8.40	12.21	14.27	13.82	10.31	7.99	5.36	1.85	
1962				8.74	11.15	13.05	13.35	13.68	8.73	4.68	2.11	
No. of Yrs.				2	5	5	5	5	5	3	2	
Average				8.57	12.26	14.39	14.19	12.50	8.67	4.97	1.98	
Std. Dev.				.240	.967	.798	.620	1.470	.511	.352	.184	
Maximum				8.74	13.61	14.99	14.96	13.68	9.31	5.36	2.11	
Minimum				8.40	11.15	13.05	13.35	10.31	7.99	4.68	1.85	

MONTHLY WIND MOVEMENT

HITE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1958					1066				844	515		
1959					1821	1434	1248	1210	1081			
1960					1472	1286	1070	1038	799			
1961				1323	1410	1018	996	831	1012	914	578	519
1962				959	1460	1079	949	962	595	531	321	
No. of Yrs.				2	5	4	4	4	5	3	2	1
Average				1141	1446	1204	1066	1010	862	653	450	
Std. Dev.				257	268	191	131	158	193	226	182	
Maximum				1323	1821	1434	1248	1210	1081	914	578	
Minimum				959	1066	1018	949	831	595	515	321	

MAXIMUM WATER TEMPERATURE

HITE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1958					86.3	90.1	91.4	94.8	84.5	71.9		
1959					81.8	92.2	97.5	92.4	83.0			
1960				76.7	83.2	91.9	95.3	92.3	87.7			
1961				76.6	84.1	94.2	96.9	94.2	84.0	72.4	56.3	
1962				81.9	83.4	91.6	94.9	93.7	88.4	74.0	60.2	
No. of Yrs				3	5	5	5	5	5	3	2	
Average				78.4	83.8	92.0	95.2	93.5	85.5	72.8	58.3	
Std. Dev.				3.03	1.65	1.47	2.38	1.10	2.38	1.10	2.76	
Maximum				81.9	86.3	94.2	97.5	94.8	88.4	74.0	60.2	
Minimum				76.6	81.8	90.1	91.4	92.3	83.0	71.9	56.3	

HITE

MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1958					58.2	62.0	64.8	68.4	60.7	47.1		
1959					54.2	63.9	66.9	66.6	56.1			
1960				44.3	54.7	62.3	66.9	63.9	60.4			
1961				45.5	54.5	63.9	67.6	69.2	55.8	46.5	35.1	
1962				49.2	54.0	59.6	65.7	64.4	60.1	49.4	38.2	
No. of Yrs.				3	5	5	5	5	5	3	2	
Average				46.3	55.1	62.3	66.4	66.5	58.6	47.7	36.7	
Std. Dev.				2.55	1.74	1.77	1.12	2.35	2.45	1.53	2.19	
Maximum				49.2	58.2	63.9	67.6	69.2	60.7	49.4	38.2	
Minimum				44.3	54.0	59.6	64.8	63.9	55.8	46.5	35.1	

MONTHLY EVAPORATION

LOGAN USU EXPERIMENT STATION Lat: 41° 46' Long: 111° 49' Elev: 4608 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1950									4.89	4.40		
1951				5.65	6.56	7.28	8.61	7.86	6.36	2.48		
1952					7.29	9.03	9.19	8.17	6.32	3.88		
1953				3.57	4.53	7.70	8.77	9.53	5.93	3.50		
1954				5.39	7.13	6.56	9.61	9.34	6.11	3.22		
1955					6.41	6.92	9.00	7.02	4.96	3.32		
1956				4.18	5.67	7.63	8.98	7.77	5.39			
1957					4.81	6.41	8.45	8.13	5.48	2.70		
1958				3.20	7.22	7.74	8.63	7.80	5.51	3.66		
1959				3.89	5.88	7.77	8.70	7.89	4.13	2.67		
1960				4.18	6.31	7.25	9.13	7.31	5.30	2.87		
1961				4.41	6.70	7.60	8.84	7.80	4.31	2.96		
1962					5.57	6.68	7.95	7.54	5.79	3.29		
1963					5.84	6.10	9.23	7.86	4.02	3.09		
1964					5.53	5.45	8.20	6.99	5.10	3.34		
1965					5.48	6.30	7.94	6.60	3.93	3.22		
1966					7.06	7.51	9.19	7.65	5.42	2.85		
1967						5.37	7.34	8.15	5.04	2.80		
1968					5.91	6.68	9.21	5.88	4.85	3.00		
1969				5.07	8.54	6.13	7.95	7.51	5.70	1.96		
1970				3.30	6.10	7.28	8.09	8.31	4.87	2.85		
1971					5.22	7.08	8.30	6.92	5.41			
1972					7.02	7.46	8.39E	7.45	5.01E	2.58E		
1973					7.40E	7.94E	7.99	7.80	4.07	2.82E		
1974				4.52	6.62	8.48	9.18	7.43	5.32	3.14E		
1975					5.15E	6.55	8.41	7.47	4.97E			
1976					7.45	8.12E	8.08	7.14	5.02	2.83E		

LOGAN USU EXPERIMENT STATION MONTHLY EVAPORATION CONTINUED

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
No. of Yrs.				11	25	26	26	26	27	24		
Average				4.31	6.30	7.12	8.59	7.67	5.16	3.06		
Std. Dev.				.813	.960	.878	.552	.746	.668	.496		
Maximum				5.65	8.54	9.03	9.61	9.53	6.36	4.40		
Minimum				3.20	4.53	5.37	7.34	5.88	3.93	1.96		

LOGAN USU EXPERIMENT STATION — MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1950										1450		
1951					1725	1054	721	1154	1019	1030		
1952					1799	1636	966	1266	1049	573		
1953				1643	1547	1002	581	1492	740	1045		
1954				1602	1065	1236	926	1191	870	741		
1955					1492	1472	973	750	734	977		
1956				1872	1236	967	1118	1003	716	871		
1957				1323	1267	829	1129	1428	743	1036		
1958				1669	1429	1190	984	629	844	839		
1959				1560	1778	1114	909	1183	832	1116		
1960				1768	1297	930	1008	904	906	959		
1961				1840	1652	888	688	661	855	1078		
1962					1251	791	742	866	762	849		
1963					951	984	1038	1016	441	760		
1964					1258	722	703	640	676	665		
1965					1325	985	806	799	1013	624		
1966					1283	899	850	710	851	709		
1967						820	663	491	433	616		
1968					1487	923	894	874	976	789		
1969				1364	1351	1302	546	516	766	980		
1970				1533	1431	1238	885	762	1112	958		
1971					1540	823	728	443	1021			
1972					1278	1003	634	555	890	805E		
1973					1364E	1095	742	828	599	723		
1974				1443E	1210	877	940	682	589	601		
1975					1167	1085	693	844	591E	1033E		
1976					1393	1172	724	761	906	724E		

LOGAN USU EXPERIMENT STATION — MONTHLY WIND MOVEMENT CONTINUED

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
No. of Yrs.				11	25	26	26	26	26	26		
Average				1602	1383	1040	830	863	805	867		
Std. Dev.				182	210	215	162	282	179	203		
Maximum				1872	1799	1636	1129	1492	1112	1450		
Minimum				1323	951	722	546	443	433	573		

MONTHLY EVAPORATION

LOGAN 5 SW EXPERIMENT FARM — Lat: 41° 40' — Long: 111° 54' — Elev: 4490 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1971				4.88E	6.78E	8.13	11.25	9.17E	6.61	3.33E		
1972				4.94E	8.64	9.73	11.40	10.23	6.67E	4.42E		
1973					8.72E	9.90	10.66	9.96	5.57	4.12E		
1974					7.72	10.54	11.98	10.52	6.36	3.86E		
1975					6.62	8.03E	11.80	9.10	7.27			
1976					8.50E	8.62	11.29	8.26	6.19E			
No. of Yrs.				2	6	6	6	6	6	4		
Average				4.91	7.83	9.16	11.40	9.54	6.45	3.93		
Std. Dev.				.042	.946	1.040	.464	.846	.565	.462		
Maximum				4.94E	8.72E	10.54	11.98	10.52	7.27	4.42E		
Minimum				4.88E	6.62	8.03E	10.66	8.26	5.57	3.33E		

LOGAN 5 SW EXPERIMENT FARM — MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1971				2415E	1888	1424	1409	1412	1776	1231E		
1972				2263	1723	1541	1430	1425	1668	1463E		
1973					1825	1478	1370	1410	1049	1117		
1974					1841	1404	1732E	1753	1362	1184		
1975						1703	1448	1615	1249	2060		
1976				2209	1997	1786	1579	1585	1455	1300		
No. of Yrs.				3	5	6	6	6	6	6		
Average				2296	1855	1556	1495	1533	1427	1393		
Std. Dev.				107	100	156	136	141	268	348		
Maximum				2415E	1997	1786	1732E	1753	1776	2060		
Minimum				2209	1723	1404	1370	1410	1049	1117		

LOGAN 5 SW EXPERIMENT FARM — MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1971				59.9	72.2	84.2	90.1	87.8	72.0	59.2		
1972				61.9	74.2	83.8	87.5	85.9	72.9	61.8		
1973					75.7	81.0		88.7	76.5	64.2		
1974					75.0	82.5	87.9	84.9	77.5	64.3		
1975					69.0	76.7	89.8	79.9	75.3	65.8		
1976				64.0		82.3	91.8	84.3	79.4			
No. of Yrs.				3	5	6	5	6	6	5		
Average				61.9	73.2	81.8	89.4	85.3	75.6	63.1		
Std. Dev.				2.05	2.70	2.73	1.75	3.11	2.80	2.59		
Maximum				64.0	75.7	84.2	91.8	88.7	79.4	65.8		
Minimum				59.9	69.0	76.7	87.5	79.9	72.0	59.2		

LOGAN 5 SW EXPERIMENT FARM — MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1971				38.2	43.1	50.8	55.0	55.9	42.6	37.2		
1972				36.2	42.6	52.1	52.3	53.2	43.8	39.7		
1973					42.6	49.0	53.7	50.8	43.5	39.2		
1974					42.1	50.6	54.7	47.0	41.6	34.3		
1975					38.6	45.5	54.5	48.9	41.1			
1976				36.4	40.7	46.7	55.5	53.0	49.2			
No. of Yrs.				3	6	6	6	6	6	4		
Average				36.9	41.6	49.1	54.3	51.5	43.6	37.6		
Std. Dev.				1.10	1.69	2.56	1.14	3.22	2.92	2.45		
Maximum				38.2	43.1	52.1	55.5	55.9	49.2	39.7		
Minimum				36.2	38.6	45.5	52.3	47.0	41.1	34.3		

MONTHLY EVAPORATION

MANILA Lat: 41° 00' Long: 109° 43' Elev: 6420 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1958						9.71	9.12	8.50	6.89			
1959												
1960												
1961					7.14	9.80	9.04	6.16	3.69			
1962					8.57	8.20	9.03	8.42	6.83	4.62		
1963					9.12	9.47	9.81	5.82				
1964					7.19	6.67	9.15	8.63	7.50	4.97		
1965					6.83	6.47	9.23	8.35	5.48	5.54		
1966					7.37	8.64	10.41	9.87	6.79			
1967						5.91	10.90	8.92	6.31			
1968						9.88	10.71	5.61	7.03			
1969							9.75	9.82				
1970					7.85	9.79	9.06	8.83	6.18			
1971					8.60		10.20	10.86				
1972					8.09	8.91	11.50	10.41E	8.65E			
1973						10.37E	10.89E	8.25E	6.40E			
1974					8.99E	10.20	11.12	10.32E	7.80			
1975						9.70E	10.12E	8.97	8.91			
1976					8.03E	8.07	10.47	9.00	6.73E			
No. of Yrs.					11	15	17	17	14	3		
Average					7.98	8.79	10.03	8.63	6.80	5.04		
Std. Dev.					.782	1.437	.828	1.536	1.290	.464		
Maximum					9.12	10.37E	11.50	10.86	8.91	5.54		
Minimum					6.83	5.91	9.03	5.61	3.69	4.62		

MONTHLY WIND MOVEMENT

MANILA

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1958					943	1380	1216	1020	976			
1959												
1960												
1961					1208			434	569			
1962					1419	674	480					
1963								343			1213	951
1964	1834	1624	1813	1952	1823	1292	1137	1339	1360	914	306	513
1965	861	539	644	757	693	425	260	190	299	233	258	310
1966	344	362	542	704	1115	927	551	1014	872			
1967							945	1037	1092	1528		2478
1968	1020	1024	1445	1877	1605	1361	355					1016
1969	897	547	787	1205	1585	1483	1162	1031	1022	853	1050	1085
1970	1272	1222	1617	1785	1693	1222	919	997	1278	1212	1237	903
1971	1351	1071	1181	1482			1464	1195	1322	1220	537	906
1972	1763	1170		1124	1251	1309	1365	1162	1278	1100	1308	1317
1973	775	602	1298	1721	1691E	1653E	1114	1272	1095	1246		
1974	1942	1099	1885	1847	1650	1102	706	934	862	1007	989	1267
1975	1199	903	1397	1508	1471	832	506	661	537	556		
1976	664	803	1406		902	779	480	574	463	671	790	
No. of Yrs.	12	12	11	11	14	13	15	15	14	11	8	10
Average	1160	914	1274	1451	1361	1111	844	880	930	958	862	1075
Std. Dev.	497	360	450	446	347	358	390	354	346	367	430	381
Maximum	1942	1624	1885	1952	1823	1653E	1464	1339	1360	1528	1308	2478
Minimum	344	362	542	704	693	425	260	190	299	233	258	310

MANILA MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1958						80.2	81.4	82.3	76.1			
1959												
1960												
1961						83.4	84.6	83.4	65.3			
1962						79.9	85.3	84.5	83.6	72.1		
1963					76.8	80.7	86.0	81.4				
1964						81.4	94.8	85.9	77.9	69.6		
1965					71.8	86.1	92.5	91.4	77.0	73.5		
1966					78.3	81.8	86.5	83.8	77.5			
1967						76.2	86.4	84.3	76.9			
1968						81.6	83.9	78.1	76.2			
1969					84.1	80.6	87.1	88.5				
1970							86.2	87.9	71.6			
1971					67.8	88.4	84.7	85.1				
1972					73.2	79.7	83.7	83.1	72.9			
1973					74.2	80.3	85.6	86.9	75.5			
1974						81.1	87.3	83.7	78.1			
1975						77.7	88.8	83.9	79.0			
1976					72.3	79.3	87.6	83.0	77.4			
No. of Yrs.					8	16	17	17	14	3		
Average					74.8	81.2	86.6	84.5	76.1	71.7		
Std. Dev.					4.93	2.93	3.18	3.02	4.16	1.98		
Maximum					84.1	88.4	94.8	91.4	83.6	73.5		
Minimum					67.8	76.2	81.4	78.1	65.3	69.6		

MANILA MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1958						50.1	51.5	54.5	45.7			
1959												
1960												
1961						51.0	56.4	56.9	43.1			
1962						50.6	56.2	51.0	44.0	31.9		
1963					45.3	50.0	55.5	55.9				
1964						49.2	56.2	53.3	47.1	40.5		
1965					41.2	49.6	72.9	74.4	56.3	49.0		
1966					52.3	49.1	59.6	56.1	50.1			
1967						48.5	56.1	55.0	50.2			
1968						51.5	56.6	53.9	42.4			
1969					48.9	49.7	57.3	56.2				
1970							55.9	54.9	40.6			
1971					40.9	49.0	52.8	54.5				
1972					42.6	51.6	52.1	52.9	42.3			
1973					41.5	46.6	52.4	53.9	41.9			
1974						48.9	54.3	49.9	42.8			
1975						47.4	56.4	50.1	43.8			
1976					43.4	44.8	55.3	48.0	44.2			
No. of Yrs.					8	16	17	17	14	3		
Average					44.5	49.2	56.3	54.8	45.3	40.5		
Std. Dev.					4.11	1.79	4.75	5.63	4.29	8.55		
Maximum					52.3	51.6	72.9	74.4	56.3	49.0		
Minimum					40.9	44.8	51.5	48.0	40.6	31.9		

MONTHLY EVAPORATION

MEXICAN HAT Lat: 37° 09' Long: 109° 52' Elev: 4270 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1957											1.78	
1958				10.25	13.24	18.87	18.48	15.24	10.63	6.41		
1959				9.86	15.50	17.54	19.24	13.14	12.30	5.76		
1960				10.44	13.92	17.63	19.35	16.78	10.81	4.41		
1961				10.54	13.83	17.05	17.54	13.26	9.05	7.00	2.28	
1962				9.84	14.01	16.75						
1963				10.42	15.32	17.62	19.12		10.52			
1964				9.47	13.71	16.73	15.92	12.65	8.69	5.81		
1965			6.31	7.04	12.78	12.57	12.96	12.43	11.25	5.22	2.20	
1966				8.89	13.57	14.32	16.73	13.40	8.11	5.97	3.10	
1967				9.83	11.23	12.52	13.98	12.74	8.98	7.33		
1968					11.66	14.74	15.10	11.78	10.22	6.48		
1969				9.15	11.48	12.09	13.49	11.71	8.70			
1970				7.36	11.06	12.51	13.44			4.78		
1971				8.93	9.83	12.55	15.00	12.07	9.01	4.69		
1972				9.98E	11.88	12.48	12.68E	12.12	8.84	3.78E		
1973				6.14	8.70	9.62	11.70	10.63	6.86	4.38E		
1974				7.02	11.57	13.39	12.26	11.59	9.10	4.40E		
1975					9.09	11.80	11.81	11.26	8.81			
1976								12.00E	9.23	5.95		
No. of Yrs.			1	16	18	18	17	16	17	15	4	
Average				9.07	12.35	14.49	15.22	12.68	9.48	5.49	2.34	
Std. Dev.				1.412	1.967	2.680	2.731	1.523	1.311	1.064	.552	
Maximum				10.54	15.50	18.87	19.35	16.78	12.30	7.33	3.10	
Minimum				6.14	8.70	9.62	11.70	10.63	6.86	3.78E	1.78	

MONTHLY WIND MOVEMENT

MEXICAN HAT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1957											1631	874
1958	1088	1351	2129	3107	2054	2750	2421	1840	1832	1254	1180	633
1959	1226	1717	2686	2360	3284	2653	2647	2190	2243	1541	1165	1091
1960	1283	1942	1988	2813	2479	2296				1432	1064	1588
1961	763	1464	2075	2842	2292	1789	1861	1650	1537	1280	731	783
1962	615	1443	2061	1944	2834	1839						
1963	1178			3567	2519	2854	2066	1697	1373	1065	873	640
1964				3048	2994	2846	1835	1734	1395	677	1087	760
1965	595	688	1659	1886	2477	1895	1562	1256	1578	694	578	684
1966	481	294	1084	1275	1405	1847	1181	1276	668	785	391	645
1967	405	695	1617	2372	1713	1911	1593	1625	1238	903	511	968
1968	518	585	1028	1611	1539	1257	1593	1414	1286	872	162	1103
1969	734	791		1527	843	1077	706	549	397			
1970		467	1069	1390	1081	1198	852	758	766	702	712	471
1971	754	1145	1439	1770	1720	1423	1474	625	1127	736	438	445
1972	654	666	1043	1483	887	672						944
1973	712	704	1421	1592	1231	928	1077	1038	1008	455	381	498
1974	526	600	969	1601	1597	1184	1318	1236	926E	382E	253	293
1975	529	470	1093	1301	724	1131	1232	874	825			351
1976	378	889		2393	2245	2508	1965	1834	1272	1111	986	820
No. of Yrs.	17	17	15	19	19	19	16	16	16	15	16	18
Average	732	936	1557	2099	1890	1793	1586	1350	1217	926	759	755
Std. Dev.	289	483	529	700	764	699	534	482	462	345	405	316
Maximum	1283	1942	2686	3567	3284	2854	2647	2190	2243	1541	1631	1588
Minimum	378	294	969	1275	724	672	706	549	397	382E	162	293

MEXICAN HAT — MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1957											50.2	
1958				65.8	79.3	82.5	92.1	88.8	78.0	66.8		
1959				66.8	72.7	84.6	88.0	84.8	73.2	66.2		
1960				68.1	75.2	82.1	89.0	85.8	79.7	61.4		
1961				67.0	75.1	85.6	88.2	86.2	74.9			
1962						86.8						
1963				63.7	81.2	86.1	91.8	90.5	85.1			
1964				72.6	79.2	84.0	92.2	88.3	82.0	71.9	52.5	
1965			60.6	69.8	74.7	80.9	89.7	89.6	77.6	71.4	57.1	
1966				73.4	82.3	86.2	92.5	90.5	82.8	68.1	57.6	
1967				60.2								
1968					78.9	88.2	92.5	86.9	80.9	70.4		
1969				74.1	82.9	85.3	93.0	92.9	84.9			
1970				70.0	85.8	91.5	97.7	97.9	85.7	71.9		
1971				77.2	81.8	92.3	97.9	96.1	83.8	71.8		
1972				72.9	81.8	96.1	103.2	93.7	82.0	67.9		
1973				69.5	81.1	87.7	92.6	91.5	81.7	73.1		
1974				72.9	83.9	91.7	94.2	91.8	84.7	72.4		
1975					79.6	87.6	93.5	90.5	83.7	72.0		
1976								89.1	79.9	69.4		
No. of Yrs.			1	15	16	17	16	17	17	14	4	
Average				69.6	79.7	87.0	93.0	90.3	81.2	69.6	54.4	
Std. Dev.				4.46	3.66	4.02	3.92	3.54	3.62	3.25	3.59	
Maximum				77.2	85.8	96.1	103.2	97.9	85.7	73.1	57.6	
Minimum				60.2	72.7	80.9	88.0	84.8	73.2	61.4	50.2	

MEXICAN HAT — MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1957											34.0	
1958				36.3	49.5	53.8	56.6	60.1	52.1	40.8		
1959				38.9	44.4	54.6	58.0	59.5	48.5	40.0		
1960				36.1	43.7	52.8	58.3	56.2	52.6	42.4		
1961				37.2	45.2	54.6	58.4	59.3	49.4			
1962						55.4						
1963				38.1	48.0	49.7	61.0	63.3	56.3			
1964				40.5	47.4	53.8	63.5	60.4	53.9	44.1	34.8	
1965			35.2	42.8	48.3	54.3	64.4	61.3	53.4	46.0	40.3	
1966				42.3	50.4	56.0	64.3	62.7	56.5	44.6	37.7	
1967				40.6								
1968					49.1	56.1	64.1	60.3	52.1	45.2		
1969				43.6	53.1	56.8	65.9	66.0	58.2			
1970				43.8	54.9	61.0	69.3	69.5	54.2	48.2		
1971				45.8	51.2	59.6	66.3	67.9	54.7	50.1		
1972				42.5	49.0	52.8	53.4	59.4	55.6	50.2		
1973				48.8	58.7	63.9	68.0	72.6	55.9	40.8		
1974				36.9	40.5	47.9	59.7	63.7	62.8			
1975					55.3	57.7	64.8	60.4	55.4	42.0		
1976								58.5	56.0	41.1		
No. of Yrs.			1	15	16	17	16	17	17	13	4	
Average				40.9	49.3	55.3	62.3	62.4	54.6	44.3	36.7	
Std. Dev.				3.74	4.70	3.87	4.47	4.33	3.31	3.53	2.88	
Maximum				48.8	58.7	63.9	69.3	72.6	62.8	50.2	40.3	
Minimum				36.1	40.5	47.9	53.4	56.2	48.5	40.0	34.8	

MONTHLY EVAPORATION

MIDLAKE Lat: 41° 13' Long: 112° 39' Elev: 4235 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1925				6.48	9.50	10.37	13.79	13.29	8.31	5.46	1.95	1.44
1926					13.06		14.93	12.90	10.42	6.35	4.61	
1927					10.26	12.78	14.51	13.58	9.28	5.27	3.19	
1928				6.82	12.35	12.15	13.67	14.35	9.92	5.65		
No. of Yrs.				2	4	3	4	4	4	4	3	1
Average				6.65	11.29	11.77	14.23	13.53	9.48	5.68	3.25	
Std. Dev.				.240	1.685	1.250	.599	.614	.910	.471	1.331	
Maximum				6.82	13.06	12.78	14.93	14.35	10.42	6.35	4.61	
Minimum				6.48	9.50	10.37	13.67	12.90	8.31	5.27	1.95	

MIDLAKE MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1925			7063	6207	6679	6544	6357	8251	7916	6793	5457	5571
1926			7962	6556	8750	6495	8179	7092	9020	6690	6274	7099
1927			8107	6916	9589	8850	7780	3485	8160	5923	5542	7811
1928			6580	9900	9275	8745	7234	7258	6780		5366	
No. of Yrs.			4	4	4	4	4	4	4	3	4	3
Average			7428	7395	8573	7659	7388	6522	7969	6469	5660	6827
Std. Dev.			730	1695	1309	1316	789	2088	923	475	416	1145
Maximum			8107	9900	9589	8850	8179	8251	9020	6793	6274	7811
Minimum			6580	6207	6679	6495	6357	3485	6780	5923	5366	5571

MONTHLY EVAPORATION

MILFORD Lat: 38° 26' Long: 113° 01' Elev: 5028 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1924					8.23	11.52	10.03	10.12	9.03	5.79		
1925					10.51	10.87	10.38	9.08	7.49	5.20		
1926				6.27	10.42	14.44	13.82	14.57	11.84	7.75		
1927					11.97	14.98	14.23	13.63	11.11	6.74		
1953						16.57	15.61	15.25	11.28	5.98		
1954				9.29	12.13	13.32	15.35	15.17	10.74	6.61	2.58	
1955					11.05	14.37	16.91	11.13	11.51	7.33		
1956					11.62	15.87	14.14	14.91	12.42			
1957				7.37	7.51	11.17	12.32	13.59	8.84	5.04		
1958					10.04	14.95	17.76	12.51	10.72	7.06		
1959				9.48	10.73	15.53	17.48	14.98	10.03	6.89		
1960				9.12	11.53	16.55	17.36	15.78	10.35	7.02		
1961				8.11	11.40	14.29	10.10	8.44	5.96			
1962				8.01	10.53	13.02	15.96	16.23	11.66	6.66		
1963				6.89	12.79	12.23	18.21	11.94	8.44	6.97		
1964				6.41	9.72	11.30	16.10	12.85	8.95	6.61		
1965				6.12	9.37	11.23	13.20	11.75	8.59	6.60		
1966				8.12	12.57	13.83	15.91	14.09	9.74	6.09		
1967				6.96	7.89	9.96	12.46	11.28	8.09	6.63		
1968				6.06	9.80	14.67	16.54	13.08	12.04	6.81		
1969				8.06	12.32	10.65	15.01	13.42	10.24	4.49		
1970				6.91	12.70	14.03	14.07	13.70	11.22	6.30		
1971				7.79	8.65	14.56	16.65	12.14	10.76			
1972				9.48	12.59	13.60	18.58	14.79	10.32	4.46		
1973				6.33	8.58	11.61	14.04	15.38	11.10	7.54		
1974				8.32	13.94	16.61	15.78	14.66	10.52	5.21		
1975				6.30E	8.41E	12.28	14.55	14.07	9.91	6.59E		
1976				7.33E	10.93E	14.90	15.61	15.09	8.82	5.55E		

MILFORD MONTHLY EVAPORATION CONTINUED

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
No. of Yrs.				21	27	28	28	28	28	25	1	
Average				7.56	10.67	13.53	14.93	13.34	10.06	6.32		
Std. Dev.				1.145	1.717	1.957	2.335	2.004	1.511	.896		
Maximum				9.48	13.94	16.61	18.58	16.23	12.42	7.75		
Minimum				6.06	7.51	9.96	10.03	8.44	5.96	4.46		

MILFORD MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1925						2151	1644	1763	2140	1750		
1926						2393	1985	1751	1587	1849		
1927				3091	3333	3132	3194	3691	3865	3133		
1928					3906	3786	3119	3476	3594	2536		
1953						4530	3760	4257	2665	2843		
1954				3924	3791	3627	3604	3787	3224	2875	613	
1955					4338	3696	4021	2753	2746	2826		
1956					3979	3117	2806	3627	3255			
1957				4573	4006	2266	2476	2947	2155	2331		
1958					2648	3144	3268	2768	3569	2649		
1959				4123	4300	3942	3051	3991	3432	3313		
1960				4088	3411	3235	2621	3551	2520	3536		
1961				3923	3393	2076	2284	1889	2785	3261		
1962				2943	3029	2511	2738	3196	2623	3121		
1963				4186	3326	3159	3541	3201	2295	2459		
1964				4335	3902	2718	3112	3211	2861	2270		
1965				3927	3889	2891	2949	2580	3340	2571		
1966				3496	3389	3386	3813	2943	2692	2682		
1967				4370	2679	2580	2293	2032	2229	2683		
1968				3517	3458	3547	4425	4793	4257	4059		
1969				4318	3747	2538	2949	2626	2609	2786		
1970				3858	3960	3331	3105	3069	3629	3498		
1971				4067	3263	2729	2621	2659	2925	2666		
1972				4320	3243	3149	3426	3013	3545	3293		
1973				3527	2129	1939	2109	3709	3644	3463		
1974				4182	3955	2981	3492	3060	2625	2660		
1975				4140	3743	3047	3066	3002	2422	2900E		
1976				3463	3188	3475	3140	3468	2574	2406		

MILFORD MONTHLY WIND MOVEMENT CONTINUED

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
No. of Yrs.				21	25	28	28	28	28	27	1	
Average				3922	3520	3038	3022	3100	2922	2830		
Std. Dev.				433	530	609	635	725	621	518		
Maximum				4573	4338	4530	4425	4793	4257	4059		
Minimum				2943	2129	1939	1644	1751	1587	1750		

MILFORD

MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1962								82.2	76.2	63.5		
1963				60.4	75.1	77.7	83.0	82.4	76.6	66.2		
1964				61.9	70.5	79.0	85.4	83.1	73.8	64.8		
1965				63.1	69.7	77.7	83.9	82.5	70.8	64.3		
1966				67.2	76.0	79.4	83.8	83.6	74.6	61.7		
1967				60.2	69.8	76.5	86.1	84.8	74.2	63.6		
1968				59.0	70.7	79.6	83.4	77.3	71.3	60.9		
1969				65.2	77.0	79.8	87.7	86.5	78.1	56.7		
1970				59.7	74.2	79.3	86.2	85.9	71.3	57.8		
1971				61.9	70.0	79.6	85.5	84.7	71.5	59.8		
1972				63.8	74.2	80.7	85.4	82.8	73.1	59.7		
1973				60.9	73.6	81.6	85.6	81.6	71.2	59.8		
1974				60.7	74.4	82.1	84.6	81.1	74.8	61.3		
1975				55.7	67.1	77.3	85.0	80.5	75.7	63.7		
1976				61.4	74.1	77.3	85.6	79.6	74.6	60.7		
No. of Yrs.				14	14	14	14	15	15	15		
Average				61.5	72.6	79.1	85.1	82.6	73.9	61.6		
Std. Dev.				2.79	2.91	1.67	1.26	2.41	2.27	2.68		
Maximum				67.2	77.0	82.1	87.7	86.5	78.1	66.2		
Minimum				55.7	67.1	76.5	83.0	77.3	70.8	56.7		

MILFORD

MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1962								52.4	47.7	40.4		
1963				36.4	45.3	49.4	53.9	57.5	51.3	42.9		
1964				37.0	42.0	49.8	56.2	55.0	46.6	40.7		
1965				39.1	43.0	48.8	56.7	55.3	44.5	39.6		
1966				38.2	45.5	49.9	56.8	56.3	49.3	39.5		
1967				36.8	44.4	50.9	59.8	58.0	51.1	40.5		
1968				37.6	42.8	50.0	56.1	53.2	44.8	39.5		
1969				38.3	46.1	51.1	57.8	59.7	50.9	37.5		
1970				35.7	43.1	50.7	58.1	58.6	43.8	37.9		
1971				37.7	42.9	50.0	56.4	59.0	45.4	40.2		
1972				37.2	43.0	52.8	55.6	54.7	48.1	41.6		
1973				37.0	45.7	50.3	55.9	53.8	42.9	37.7		
1974				34.9	42.3	48.9	55.3	50.3	45.9	38.5		
1975				34.3	39.2	47.3	55.1	50.7	45.9	36.8		
1976				35.4	43.8	45.5	55.0	49.0	48.2	36.7		
No. of Yrs.				14	14	14	14	15	15	15		
Average				36.8	43.5	49.7	56.3	54.9	47.1	39.3		
Std. Dev.				1.37	1.83	1.74	1.49	3.34	2.70	1.80		
Maximum				39.1	46.1	52.8	59.8	59.7	51.3	42.9		
Minimum				34.3	39.2	45.5	53.9	49.0	42.9	36.7		

MONTHLY EVAPORATION

MOAB 4 NW Lat: 38° 36' Long: 109° 36' Elev: 3965 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1958			4.81	7.67	11.11	14.76	15.68	12.62	8.46			
1959				9.09	12.71	14.31	15.34	11.57	9.40			
1960					10.82	13.99	14.29	12.69	7.87	3.98		
1961				8.30	11.80		15.03	11.04	6.22	5.53		
1962				8.90	11.21	14.53	13.45	12.77	8.68	5.05		
1963				8.30	12.78	13.89	14.34	10.76	8.09	5.40		
1964				7.46	11.34	12.46	14.70	10.44	7.93	5.89		
1965					10.56	9.85	12.20	10.13	7.33	4.11	1.74	
1966					11.38	12.81	12.21	11.23	6.72	4.28	1.92	
1967				9.26	8.94	9.51	11.55	11.41	7.25	5.73	3.17	
1968					9.68	13.14	11.28	9.57	7.20	4.04		
1969				8.22	10.47	10.06	11.58	9.80	7.04	2.74		
1970				6.13	11.27	11.58	12.04	9.90	8.20	4.12		
1971				7.67	9.66	12.50	14.10	11.97	8.11	4.92		
1972				8.18	10.84	11.29	12.15		7.60	2.63E		
1973				6.27	8.74	9.97	11.38	9.92	7.40	4.85E		
1974				6.58E	11.22	11.55	12.17	11.29	8.45	4.00		
1975					8.43	9.90	11.48	9.92E	7.03	4.37		
1976				7.30	8.54	12.23	12.33	11.16	7.39E	4.35E		
No. of Yrs.			1	14	19	18	19	18	18	17	3	
Average				7.81	10.61	12.13	13.02	11.01	7.70	4.47	2.28	
Std. Dev.				.994	1.683	1.767	1.502	1.039	.762	.922	.779	
Maximum				9.26	12.78	14.76	15.68	12.77	9.40	5.89	3.17	
Minimum				6.13	8.43	9.51	11.28	9.57	6.22	2.63	1.74	

MONTHLY WIND MOVEMENT

MOAB 4 NW

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1958	577	749	1599	1770	1381				1053	909	1105	706
1959	821	1436	1920	1852	2263	1599	1013	836	1286	1036	971	920
1960	1061	1341	1261	2087	1697	1500	1173	1228	1041	1072	584	208
1961	214	765	783	1546	1810	1444	1483	1213	1300	1330	1165	1010
1962	1020	1405	1624	1436	1757	1374	1064	1281	1057	1115	596	497
1963	942	882	1608	2273	1737	1804	1358	1274	1033	874	993	601
1964	1446	1674	1963	1985	1836	1489	1382	1338	1263	767	1121	1069
1965	924	1036	1560	1689	2030	1285	1081	893	1332	530	916	801
1966	793	841	1480	1393	1517	1529	1158	918	575	666	711	839
1967	768	994	1743	2155	1297	1295	979	897	918	961	530	397
1968			668	1423	1404	1336	892	1019	635	687	571	592
1969	877	929	904	1308	1009	1094	876	744	737	755	391	431
1970	506	595	1304		1379	1266	884	655	982	759	933	786
1971	663	954	1302	1505	1487	999	1133	1047	1040	1060	516	579
1972	1122	669	1058	1390	1245	997	915	1657	854	647	371	809
1973	252	449	1312	1234	953	873	797	762	732	651	899E	632
1974	611	521	1248	1385	1525	834	1155	959	845	706	362	544
1975	800	838	1364	1462	1216	1054	863	741	657	751	738	383
1976	249	844	1286	1402	1044	1343	1009	1202	756	629	498	323
No. of Yrs.	18	18	19	18	19	18	18	18	19	19	19	19
Average	758	940	1368	1628	1505	1284	1068	1037	952	837	735	638
Std. Dev.	324	333	351	318	350	264	194	264	236	209	268	237
Maximum	1446	1674	1963	2273	2263	1804	1483	1657	1332	1330	1165	1069
Minimum	214	449	668	1234	953	834	797	655	575	530	362	208

MOAB 4 NW

MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1958					87.0	90.8	91.5	94.8	84.2			
1959				75.3	80.6	91.5	94.5	90.6	81.9			
1960					83.3	91.9	97.9	93.5	87.3	69.8		
1961				74.8	87.2		99.5	95.0	84.3	75.7		
1962					87.4	94.6	97.7	97.5	91.8	78.4		
1963				79.0	89.7	92.5	99.3	96.8	92.5	80.0		
1964				76.7	86.8	92.9	101.8	99.9	92.3	78.1		
1965					81.5	89.3	99.5	95.9	80.6	71.2	60.3	
1966					93.0	94.3	100.4	97.3	89.6	72.0	59.1	
1967				74.2	84.4	90.7	99.2	98.4	89.1	74.9	56.8	
1968				74.1	85.2	94.3	98.3	92.5	85.9	73.0		
1969				80.8	90.4	90.9	99.1	99.0	90.8	67.1		
1970				81.8								
1971				79.5	85.5	95.5	99.4	99.1	88.0	76.2		
1972				75.8	85.0	92.7	96.1		85.5	70.7		
1973				71.7	84.9	91.6	96.2	95.1	85.4	74.7		
1974				73.7	86.6	93.3	95.3	92.3	86.6	72.5		
1975					81.9	89.3	98.4	94.6	87.1	69.8		
1976				74.4					88.4	73.1		
No. of Yrs.				13	17	16	17	16	18	16	3	
Average				76.3	85.9	92.3	97.9	95.8	87.3	73.6	58.7	
Std. Dev.				3.06	3.23	1.85	2.50	2.71	3.40	3.54	1.78	
Maximum				81.8	93.0	95.5	101.8	99.9	92.5	80.0	60.3	
Minimum				71.7	80.6	89.3	91.5	90.6	80.6	67.1	56.8	

MOAB 4 NW

MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1958					56.3	60.9	65.2	67.5	59.0			
1959				44.0	52.5	61.4	65.7	64.6	56.3			
1960					54.7	62.9	68.8	65.6	61.2	49.4		
1961				41.4	50.5		63.8	66.8	52.4	44.6		
1962				44.8	53.8	61.6	64.4	63.5	56.6	46.2		
1963				40.9	54.3	57.6	65.7	66.3	59.1	50.0		
1964				42.1	51.1	57.2	67.0	63.9	55.8	46.5		
1965					53.1	60.1	67.2	65.9	55.3	48.5	43.9	
1966					55.6	61.9	68.2	66.4	58.3	46.8	39.6	
1967				44.7	53.8	59.0	68.5	67.2	59.8	48.0	37.5	
1968				45.0	53.3	60.7	65.5	63.0	55.0	47.9		
1969				47.2	58.2	60.6	69.0	70.3	63.0	46.3		
1970				45.9	56.8	62.8						
1971				52.8	58.2	65.9	69.3	71.8	61.0	52.4		
1972				47.1	52.8	62.4	65.4		58.3	52.3		
1973				44.6	54.4	60.2	65.4	65.3	55.1	47.0		
1974				44.6	54.5	61.6	66.0	62.4	56.4	49.9		
1975					51.3	57.8	67.5	62.9	57.3	44.0		
1976				46.2					59.8	45.4		
No. of Yrs.				14	18	17	17	16	18	16	3	
Average				45.1	54.2	60.9	66.6	65.9	57.8	47.8	40.3	
Std. Dev.				2.93	2.23	2.18	1.70	2.60	2.67	2.48	3.26	
Maximum				52.8	58.2	65.9	69.3	71.8	63.0	52.4	43.9	
Minimum				40.9	50.5	57.2	63.8	62.4	55.1	44.0	37.5	

MONTHLY EVAPORATION

MOON LAKE Lat: 40° 34' Long: 110° 30' Elev: 8150 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1941							5.14	6.33	3.91			
1942							8.59	8.37	6.03			
1943							8.30	6.41				
1944						6.53	8.45	8.80	6.51			
1945						7.42	7.42	5.99	6.13			
1946							8.08	7.47	5.84			
1947							7.63	4.99				
1948												
1949								7.30	6.31			
1950							6.57	7.98				
1951						6.06	7.79	5.65				
1952							7.01	5.95	5.26			
1953							7.59	5.97				
1954							8.00	7.33	4.76			
1955							9.29	5.23	5.64			
1956						7.79	7.56	6.80				
1957						7.82	7.67	7.38				
1958												
1959												
1960								9.86				
1961								7.56				
1962												
1963												
1964												
1965							6.99					
1966												
1967												
1968												
1969						5.66						

MOON LAKE MONTHLY EVAPORATION CONTINUED

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
No. of Yrs.						6	16	18	9			
Average						6.88	7.63	6.97	5.60			
Std. Dev.						.926	.943	1.286	.832			
Maximum						7.82	9.29	9.86	6.51			
Minimum						5.66	5.14	4.99	3.91			

MOON LAKE

MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1941							1338	1878	1430			
1942							2237	2386	2260			
1943							2084	1685				
1944						2614	1988	2108	1884			
1945						2764	2179	1841	2177			
1946							1939	1739	1840			
1947					3675	2185	1480	1397				
1948												
1949								1558	1513			
1950							1794	1780	1523			
1951						1705	1270	994				
1952							1441	1481	1310			
1953							1110	1013				
1954							1538	1495	1267			
1955							1661	1320	1671			
1956						1606	1535	1715	1556			
1957						1923	1575	1417				
1958												
1959												
1960								2852				
1961												
1962												
1963												
1964								2563	2297			
1965								1980				
1966												
1967												
1968												
1969						1745	1420					

MOON LAKE

MONTHLY WIND MOVEMENT CONTINUED

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
No. of Yrs.					1	7	16	19	12			
Average						2077	1662	1747	1727			
Std. Dev.						459	339	483	362			
Maximum						2764	2237	2852	2297			
Minimum						1606	1110	994	1267			

MONTHLY EVAPORATION

MORGAN Lat: 41° 02' Long: 111° 41' Elev: 5070 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1962								8.02	6.26	3.49		
1963								7.53	4.88	3.55		
1964					6.01	7.07	9.13	7.69	6.04	4.50		
1965					5.97	6.16	8.90	8.28	5.07	4.06		
1966							7.66	9.21	7.33	3.06		
1967				4.94	6.38	7.08		8.54	6.56			
1968					7.72	7.79	9.35	8.67	6.59	4.11		
1969					8.60	7.80	8.91	9.21				
No. of Yrs.				1	5	5	5	8	7	6		
Average					6.94	7.18	8.79	8.39	6.10	3.80		
Std. Dev.					1.171	.674	.658	.635	.870	.521		
Maximum					8.60	7.80	9.35	9.21	7.33	4.50		
Minimum					5.97	6.16	7.66	7.53	4.88	3.06		

MORGAN MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1962								859	503	290		
1963						199	112	118	51	283		
1964					1126	609	532	614	796	788		
1965					868	557	510	414	555	711		
1966								1051	954	923		
1967				1665	1140	585		479	505	858		
1968				1158	1103	439	434	431	487	438		
No. of Yrs.				2	4	5	4	7	7	7		
Average				1412	1059	478	397	567	550	613		
Std. Dev.				359	128	169	195	309	283	271		
Maximum				1665	1140	609	532	1051	954	923		
Minimum				1158	868	199	112	118	51	283		

MORGAN MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1962								83.2	76.1	62.7		
1963							81.4	80.4	73.0	63.2		
1964					69.2	77.3	88.6	80.5	71.1	61.3		
1965					61.3	73.9	86.9	84.7	63.9	59.0		
1966								84.8	72.9			
1967				52.7	66.2	74.4		89.6	78.4	64.0		
1968					69.4	80.8	91.0	80.8	72.1	59.0		
No. of Yrs.				1	4	4	4	7	7	6		
Average					66.5	76.6	87.0	83.4	72.5	61.5		
Std. Dev.					3.78	3.18	4.08	3.32	4.55	2.15		
Maximum					69.4	80.8	91.0	89.6	78.4	64.0		
Minimum					61.3	73.9	81.4	80.4	63.9	59.0		

MORGAN MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1962								52.5	45.8	39.2		
1963							48.7	51.7	47.6	40.8		
1964					42.9	45.4	54.1	52.7	43.4	36.4		
1965					42.2	49.7	53.8	51.3	40.5	37.7		
1966								51.7	46.3			
1967				35.9	42.6	49.0		53.6	45.9	39.5		
1968					41.6	48.8	56.3	51.1	43.9	39.1		
No. of Yrs.				1	4	4	4	7	7	6		
Average					42.3	48.2	53.2	52.1	44.8	38.8		
Std. Dev.					.56	1.92	3.22	.89	2.36	1.53		
Maximum					42.9	49.7	56.3	53.6	47.6	40.8		
Minimum					41.6	45.4	48.7	51.1	40.5	36.4		

MONTHLY EVAPORATION

MYTON Lat: 40° 12' Long: 110° 04' Elev: 5030 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1918					4.48	11.68	9.34	9.45	6.19	2.69		
1919					10.27	10.94	11.22	9.54	5.94	3.41	.41	
1920				4.37	5.99	5.48	9.92	7.51	5.67	3.84		
1921				5.70	8.51	8.30	8.82	7.39	7.89	4.36	.30	
1922					7.99	9.05	8.83	7.64	6.46	4.10	.26	
1923				4.60	8.07	10.39	10.50	7.94	6.23	1.40		
1924					9.67	12.42	10.41	9.84	6.23	4.01	.33	
1925				7.66	9.40	7.46	8.74	7.39	5.67	3.30		
1926						10.06	8.21	8.43	7.64			
1927						8.56	9.16	7.86	5.86			
1928						10.16	10.11		6.94			
1929					8.10	10.54	8.66	7.95	4.93			
1930						11.14	9.29	6.74	4.93			
1931					8.81	9.05	10.02		6.29			
1932					5.18	8.17	8.58	7.23	5.94			
1933					3.40	10.56	8.86	7.74	6.33	3.41		
1934					7.83	7.58	9.31	7.23	6.11	1.83		
1935					6.20	9.41	8.79	6.60	5.34			
1936					8.15	7.99	7.31	6.84	5.44			
1937					3.52	7.11	6.36	5.88	4.77	3.26		
1938					7.72	8.95	9.72	8.75	5.37	1.83		
1939					8.45	10.87	11.60	9.38	5.46	3.90		
1940				6.82	8.95	11.17	10.28	8.93	4.04	3.49		
1941			3.72	4.42	9.01	8.41	8.71	7.64	5.69	2.70		
1942							7.04	6.43	5.69	3.71		
No. of Yrs.			1	6	20	24	25	23	25	16	4	
Average				5.60	7.49	9.39	9.19	7.84	5.88	3.20	.33	
Std. Dev.				1.389	2.008	1.670	1.216	1.070	.839	.882	.064	
Maximum				7.66	10.27	12.42	11.60	9.84	7.89	4.36	.41	
Minimum				4.37	3.40	5.48	6.36	5.88	4.04	1.40	.26	

MYTON

MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1918					1603	2665	2002	2139	2038	1992		
1919					3017	2088	1930	1834	1781	2231		
1920				4324	2146	1083	1884	1862	1835	1632	1406	
1921				3279	2752	1493	1322	1506	2202	1429	1680	
1922					2585	1813	1701	1298	1472	1282	1107	
1923				1195	1188		1470	1663	1851	1728	1326	
1924			3134	3778	2668	2750	2113	1989	1870	2253	1565	
1925			3140	3030	2700	1840	1543	1633	1882	2192	1490	1205
1926			2730	2650	2740	2220	1570	1640	2180	1940	2030	1200
1927			2680	3500	3870	2180	1670	1660	1510	1392	1530	1528
1928			2364	3132	1600	2270	1688	1426	1528	1497	1132	1016
1929					2490	2259	1517	1377	1445	1663	1455	
1930												
1931				2816	2393	1544	1574	1394	1624	1483		
1932					1890	1224	1294	1070	1168			
1933						1156	2671	908	1194	867		
1934					1146	910	682	762	1391	467		
1935					2247	1571	1189	837	953			
1936					1592	1353	1012	975	1213			
1937					1410	1073	795	895	830	1070		
1938					2963	1959	1654	1399	462	1187		
1939					2966	3444	2182	2061	1647	1677		
1940				2370	1763	2024	1823	659	635	811		
1941			1604	1867	1901	1791	1508	1427	1328	1226		
1942							1370	1560	1390	1080		
No. of Yrs.			6	11	22	22	24	24	24	21	10	4
Average			2609	2904	2256	1850	1590	1416	1476	1481	1472	1237
Std. Dev.			574	877	694	625	439	421	456	484	267	213
Maximum			3140	4324	3870	3444	2671	2139	2202	2253	2030	1528
Minimum			1604	1195	1146	910	682	659	462	467	1107	1016

MONTHLY EVAPORATION

NEPHI 5 SW Lat: 40° 00' Long: 111° 00' Elev: 8000 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1918				4.39	6.89	8.41	8.84	9.21	5.78	2.82		
1919				4.70	7.23	11.21	12.36	9.48	5.70	2.59		
1920					5.09	8.49	9.90	6.98	6.84	2.91		
1921				2.68	5.26	7.05	8.95					
No. of Yrs.				3	4	4	4	3	3	3		
Average				3.92	6.12	8.79	10.01	8.56	6.11	2.77		
Std. Dev.				1.088	1.099	1.743	1.636	1.372	.636	.165		
Maximum				4.70	7.23	11.21	12.36	9.48	6.84	2.91		
Minimum				2.68	5.09	7.05	8.84	6.98	5.70	2.59		

MONTHLY EVAPORATION

PIUTE DAM Lat: 38° 19' Long: 112° 11' Elev: 5900 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1918					10.15	11.15	10.05	10.21	7.38	4.23	2.69	
1919				7.89	9.14	13.26	11.77	10.52	8.11	4.20		
1920				1.80	9.65	13.85	12.75	9.61	7.60	5.14	2.47	
1921					8.86	10.79	10.85	8.02	8.94	5.54	1.88	
1922					5.80	11.74	10.23	8.21	7.85	5.65	.16	
1923					7.48	10.83	9.91	8.73	7.07	4.29	1.89	
1924					9.21	14.02	10.88	12.34	7.58	5.34	.37	
1925					10.29	9.07	9.64	8.84	7.00	4.33		
1926					8.23	11.52	10.03	10.12	9.03	5.79		
1927					10.51	10.87	10.38	9.08	7.49	5.20	1.93	
1928					8.22	11.80	11.32	10.28	8.49	5.04		
1929					2.65	12.26	10.02	7.71	7.26	3.14		
1930					8.26	11.54	10.31	8.31	7.17	3.81		
1931					10.13	12.22	12.68	10.54	8.66			
1932						10.45	10.65	10.40	7.28	3.62		
1933						12.50	10.51	10.51	8.76	3.25		
1934					11.10	11.14	13.07	9.30	8.74	4.66		
1935				5.91	6.79	12.97	12.41	10.20	8.05	6.46		
1936					11.46	11.05	9.08	9.47	7.93			
1937					9.89	10.86	9.90	9.67	7.41	5.07		
1938						10.50	11.11	9.54	6.40	4.26		
1939					9.83	12.74	12.81	9.25	6.44	4.67	2.36	
1940					10.35	12.30	11.90	9.82	5.82	2.83		
1941						9.91	9.46	9.04	7.43	2.44		
1942						11.83	11.24	9.10	7.88			
1943						9.71	9.73	7.34	7.21			
1944						10.00		10.92	7.99			
1945					7.87	8.51	8.29	8.44	7.41			
1946					7.75	12.32	9.60	8.16	7.57			
1947					9.08	7.87		8.52	7.99	4.64		
1948					9.66	8.67	10.56	9.17	8.12	4.65		
1949					7.34	9.44	9.26	8.55	7.10	3.70		

PIUTE DAM MONTHLY EVAPORATION CONTINUED

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1950					8.33	12.19	10.30	9.73	8.41	6.56		
1951					7.64	10.33	9.56	8.11	8.17	4.68		
1952						10.41	9.76	8.05	6.46	5.03		
1953			4.91	6.66	10.54		8.57	7.51	4.30			
1954						9.81	9.70	10.38	6.05			
1955					7.85	11.40	12.10	6.60	8.11	5.69		
1956					8.88							
1957						8.97	9.74	8.13	7.03			
1958					8.09	11.01	12.18	7.53	6.68			
1959				6.83	8.18	10.32	11.15	9.31	5.32	6.01		
1960				7.28	8.70	11.69	10.83	10.84	7.80	3.92		
1961					8.50	10.81	9.97	4.58	6.43	4.48		
1962					7.42	9.09	10.29	9.76	8.13			
1963					8.97	9.82	11.69		7.03			
1964					7.08	8.95	10.42	9.55	7.36	5.71		
1965					7.28	8.71	9.63	8.74	7.10			
1966					9.55	10.57	10.53	9.83	6.58			
1967					7.51	8.57	9.57	8.79	6.74	5.56		
1968						10.97	10.90	7.88	8.04	4.53		
1969					9.30	8.41	10.72	10.13	6.65			
No. of Yrs.			1	6	41	50	49	50	51	35	8	
Average				6.06	8.62	10.79	10.57	9.11	7.40	4.69	1.72	
Std. Dev.				2.189	1.582	1.475	1.115	1.290	.924	.982	.946	
Maximum				7.89	11.46	14.02	12.75	12.34	9.03	6.56	2.69	
Minimum				1.80	2.65	7.87	8.29	4.58	4.30	2.44	.16	

PIUTE DAM MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1918					4078	2510	2350	2675	1988	2231	1877	
1919				2839	2575	3151	2751	2320	2951	2465		
1920				675	3164	3931	2811	2559	2659	3123	2356	
1921					2626	2043	1928	1669	1990	1682	928	
1922					1936	2106	1718	1651	1458	1815	417	
1923						1986	1667	1128		1224	901	
1924				797		1576	1843	1933	1427	1985	195	
1925					1616	1501	1264	1646	2040	1975		
1926				788	2049	1935	1738	1876	2366	1890	1832	
1927					2693	2151	1644	1763	2140	1750	1735	
1928					2085	2393	1985	1751	1587	1849	1160	
1929					697	2283	1857	1823	2080			
1930												
1931					2196	2231	1855	1678	2102	1048		
1932						1955	1575	1556	1095	1062		
1933						2223	1888	1857	1975	839		
1934					2604	2087	1805	1427	2006	1330		
1935				2637	2653	2321	2194	1875	1414	1026		
1936					2354	2054	1273	1527	1910			
1937					2060	2382	1664	1754	1647	1701		
1938						2014	1926	1832	1338	1830		
1939					2185	2465	1568	1105	1317	1558	735	
1940					1957	1676	1547	1343	1535	765		
1941						2021	1534	1486	1999	1155		
1942						2140	1734	1752	1620			
1943						1946	1156	1152	983			
1944						2170	1552	1676	1419			
1945					1758	1783	1332	1095	1708			
1946					1826	2101	1508	1413	1547			
1947					1627	1950	1332	1447	1642	1526		
1948					2132	1573	1716	1653	1626	1177		
1949					1911	1870	1403	1206	1240	1411		

PIUTE DAM MONTHLY WIND MOVEMENT CONTINUED

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1950					2192	2241	1655	1590	1495	1951		
1951					2083	1831	1612	1543	1267	1479		
1952						2068	1157	1079	967	746		
1953				2102	2742	2394	1623	2090	1362	1520		
1954						2431	1728	2075	1698	1663	1379	
1955					2485	2150	2051	1087	1533	1682		
1956										2217		
1957						1833	1569	1372	1113	1292		
1958					1616	1902	1624	1220	1679			
1959				2139	2260	1637	1717	1813	1639			
1960				2559	1946	1736	1211	1627	1172	1310		
1961							1142	818	1185	1400		
1962					1530	1280	1240		930			
1963					1485	1482	1061	807	1002			
1964					1864	1951	1557	1681	1177	880		
1965					1633	1445	1427	1095	1473			
1966				1742	1773	1735	1566	1213	1338			
1967					1595	1388	933	1017	1235			
1968						1564	1296	586				
1969				2021	1859	1520	1456	1280	1234			
No. of Yrs.				10	36	49	50	49	48	35	11	
Average				1830	2107	2023	1635	1543	1590	1559	1229	
Std. Dev.				810	573	448	373	424	436	509	671	
Maximum				2839	4078	3931	2811	2674	2951	3123	2356	
Minimum				675	697	1280	933	586	930	746	195	

PIUTE DAM MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1962									82.0	67.4		
1963										71.0		
1964					74.4	79.3	85.0	82.7	77.0	70.2		
1965					73.3	80.6	83.6	85.6	75.4			
1966					80.0	82.3	82.8	83.4	78.4			
1967					72.7	78.6	88.1	85.4	76.5	65.2		
1968						82.8	85.8		72.3	60.9		
1969					76.0	77.8		85.6	76.2			
No. of Yrs.					5	6	5	5	7	5		
Average					75.3	80.2	85.1	84.5	76.8	66.9		
Std. Dev.					2.92	2.02	2.06	1.38	2.95	4.09		
Maximum					80.0	82.8	88.1	85.6	82.0	71.0		
Minimum					72.7	77.8	82.8	82.7	72.3	60.9		

PIUTE DAM

MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1962									52.2	40.1		
1963										43.3		
1964					34.5	40.1	50.3	48.6	39.7	31.7		
1965					40.0	52.4	63.2	62.7	53.4			
1966					51.4	49.7	48.6	49.6	43.0			
1967					45.4	50.0	61.0	59.0	52.4	42.3		
1968						52.1	57.9		44.2	39.9		
1969					47.7	50.2		58.7	51.6			
No. of Yrs.					5	6	5	5	7	5		
Average					43.8	49.1	56.2	55.7	48.1	39.5		
Std. Dev.					6.64	4.54	6.47	6.26	5.59	4.57		
Maximum					51.4	52.4	63.2	62.7	53.4	43.3		
Minimum					34.5	40.1	50.3	48.6	39.7	31.7		

MONTHLY EVAPORATION

PROVO RADIO KOVO Lat: 40° 13' Long: 111° 40' Elev: 4470 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1918					5.86	7.20	6.81	6.32	4.34	1.84		
1919				4.10	6.90	7.07	8.54	6.52	3.74	1.99	.58	
1920				2.58	6.39	7.54	6.70	5.95	3.98	1.90	.16	
1921				3.33	5.58	6.30	6.80	5.61	4.29	2.59	.58	
1922				3.59	5.42	6.58	6.92	5.72	4.63	2.94	.34	
1923				3.35	6.21	6.33	6.95	6.31	4.12	2.31	.76	
1924			1.53	4.96	7.09	8.51	8.11	6.63	4.93	2.64	.63	
1925			3.10	4.73	6.23	5.36	7.83	6.10	4.36	2.10		
1926				4.36	5.56	7.21	6.72	6.58	4.34	2.79		
1948				6.31	9.73	8.18	10.64	8.95	6.98	3.60		
1949			2.84	6.55	7.34	8.35	9.36	8.87	5.93	2.76		
1950			3.60	6.78	7.41	9.56	8.51	9.57	6.40	5.02		
1951			3.53	5.46	6.39	8.35	9.24	7.80	6.02	2.78		
1952					7.93	8.48	8.88	7.85	6.56	4.08		
1953				4.57	5.38	8.95	7.83		5.31	3.73		
1954						6.84	9.01	7.65	5.16	3.25		
1955					7.06	7.55	8.31	6.59		5.62		
1956					6.36		8.59	7.88	5.44	3.75		
1957					5.30	7.33	8.19	7.92	5.29	3.13		
1958				3.87	6.92	8.29	8.34	7.61	5.75	3.72		
1959				5.36	5.96					3.01	.18	
1960				4.80	6.42	7.84	8.61	8.32	5.71			
No. of Yrs.			5	16	21	20	21	20	20	21	7	
Average			2.92	4.67	6.54	7.59	8.14	7.24	5.16	3.12	.46	
Std. Dev.			.837	1.212	1.036	1.023	1.044	1.157	.931	.979	.235	
Maximum			3.60	6.78	9.73	9.56	10.64	9.57	6.98	5.62	.76	
Minimum			1.53	2.58	5.30	5.36	6.70	5.61	3.74	1.84	.16	

PROVO RADIO KOVO

MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1918					1302	599	619	670	551	628		
1919				1445	1221	639	943			722	435	
1920				1210	1045	757	361	799	687	794	617	
1921				1461	1027	499	545	428	574	556	189	
1922				1245	1253	684	692	650	601	547	382	
1923				1162	1374	787	586	601	607	755	438	
1924			1209	1563	1157	1078	828	759	928	913	347	
1925			1277	1220	988	798	636	610	711	735	433	
1926				903	772	700	563	448	624	547	553	
1948				3452	2874	1145	1189	1080	918	1120		
1949			1835	2416	2127	1434	773	435	511	609		
1950			1706		2452					1176		
1951				1932	1649	1412	830	846	529	945		
1952				2020	1850	1653	1243	1229	1240	644		
1953				2298	2368	1781	1213	1396	941	1298	1210	
1954						1339	1262	1306	1279	1186		1005
1955	873	1035	2000	2562	2036	1257	998	692		904		
1956					1515		1020	939	804	1347		
1957					1421	1090	854	1168	572	872		
1958				1798	1042	1031	626	528	742	675		
1959				1295	1121	849			628	579	702	714
1960	600	853	1149	1221	855	641	631	687	535	579	746	612
No. of Yrs.	2	2	6	17	21	20	20	19	19	22	11	3
Average	737	944	1529	1718	1498	1009	821	804	736	824	550	777
Std. Dev.	193	129	363	660	578	373	264	302	230	256	272	204
Maximum	873	1035	2000	3452	2874	1781	1262	1396	1279	1347	1210	1005
Minimum	600	853	1149	903	772	499	361	428	511	547	189	612

MONTHLY EVAPORATION

RIVERTON Lat: 40° 31' Long: 111° 59' Elev: 4655 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1966				6.24	9.05	10.50	11.98	12.66	7.94			
1967				6.19	6.06	6.62	9.27	9.86	6.22	4.87		
1968						8.32	11.23	7.46	7.26			
No. of Yrs.				2	2	3	3	3	3	1		
Average				6.22	7.56	8.48	10.83	9.99	7.14			
Std. Dev.				.035	2.114	1.945	1.399	2.603	.866			
Maximum				6.24	9.05	10.50	11.98	12.66	7.94			
Minimum				6.19	6.06	6.62	9.27	7.46	6.22			

RIVERTON

MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1966				2096	1822	1562	1572	1521	1434			
1967					518	1022	874	873	946	1435		
1968						915	777	941	1198			
No. of Yrs.				1	2	3	3	3	3	1		
Average					1170	1166	1074	1112	1193			
Std. Dev.					922	347	434	356	244			
Maximum					1822	1562	1572	1521	1434			
Minimum					518	915	777	873	946			

RIVERTON

MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1966				66.5	79.0	84.9	90.7	86.0	77.4			
1967				61.4	73.9	83.3	92.3	90.8	80.2	67.8		
1968						86.1	94.5	84.3	98.1			
No. of Yrs.				2	2	3	3	3	3	1		
Average				64.0	76.5	84.8	92.5	87.0	85.2			
Std. Dev.				3.61	3.61	1.40	1.91	3.37	11.23			
Maximum				66.5	79.0	86.1	94.5	90.8	98.1			
Minimum				61.4	73.9	83.3	90.7	84.3	77.4			

RIVERTON

MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1966				41.1	49.3	53.0	61.9	57.3	54.3			
1967				38.4	48.1	54.0	63.5	61.3	54.0	43.5		
1968						48.5	57.9	52.9	39.8			
No. of Yrs.				2	2	3	3	3	3	1		
Average				39.8	48.7	51.8	61.1	57.2	49.4			
Std. Dev.				1.91	.85	2.93	2.88	4.20	8.29			
Maximum				41.1	49.3	54.0	63.5	61.3	54.3			
Minimum				38.4	48.1	48.5	57.9	52.9	39.8			

MONTHLY EVAPORATION

SAINT GEORGE Lat: 37° 07' Long: 113° 34' Elev: 2760 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1971				8.68E	9.29	13.17	15.14	11.46	9.79	5.15E		
1972					8.24E	11.13	12.27	15.27E	11.64	8.02	3.69E	
1973				7.46	9.27E	11.78	14.04	11.98E				
1974				7.05E		12.93E	13.97	13.22E	10.74E	6.49E		
1975					10.16E	13.58E	14.97E	13.20	9.44	7.15E		
1976				7.59E	11.64	14.48E	13.01E	14.12				
No. of Yrs.				4	5	6	6	6	4	4	1	
Average				7.70	9.72	12.85	13.90	13.21	10.40	6.70		
Std. Dev.				.696	1.614	1.217	1.110	1.389	.991	1.210		
Maximum				8.68	11.64	14.48	15.14	15.27	11.64	8.02		
Minimum				7.05	8.24	11.13	12.27	11.46	9.44	5.15		

SAINT GEORGE

MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1971				1795	1965	1573	1557	1473	1291	1316	777	
1972			1287	1673	1453	1436	1537	1228	935	582		
1973				1566	1266	1223	1232	1143	946	753		
1974			1344	1645		1586	1470	1328E	1088	716		
1975				1704	1498	1637	1536E	1660	1348	1215E	1051	
1976			1804	1860	1767	1958	1869	1696	1339	1055	813	
No. of Yrs.			3	6	5	6	6	6	6	6	3	
Average			1478	1707	1590	1569	1534	1421	1158	777	880	
Std. Dev.			283	106	276	242	204	227	193	298	149	
Maximum			1804	1860	1965	1958	1869	1696	1348	1316	1051	
Minimum			1287	1566	1266	1223	1232	1143	935	582	777	

SAINT GEORGE

MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1971				78.9	82.8	93.1	98.9	99.3	89.7	74.0		
1972			79.1	81.6	89.9	97.2	100.6	98.9	92.3	77.7		
1973			70.7	82.6	93.2	98.5		100.6	92.8	81.3		
1974				82.1		100.4		94.7				
1975					83.0	92.2	99.9	92.6	92.7	76.2		
1976			68.0	73.6	86.3	91.9	99.3	97.2	91.7	77.8	64.7	
No. of Yrs.			3	5	5	6	4	6	5	5	1	
Average			72.6	79.8	87.0	95.6	99.7	97.2	91.8	77.4		
Std. Dev.			5.79	3.73	4.50	3.62	.74	3.04	1.27	2.67		
Maximum			79.1	82.6	93.2	100.4	100.6	100.6	92.8	81.3		
Minimum			68.0	73.6	82.8	91.9	98.9	92.6	89.7	74.0		

SAINT GEORGE

MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1971				47.5	52.7	59.7	69.7	70.2	56.8	47.1		
1972			48.1	50.8	57.5	66.1	69.2	68.3	62.4	56.1		
1973			47.8	51.8	62.4	66.5		68.6	62.2	49.7		
1974				51.1		65.9		62.7				
1975					57.1	58.8	65.3	62.1	58.8	46.5		
1976				45.6	55.5	55.5	67.0	63.3	59.8	47.2	39.5	
No. of Yrs.			2	5	5	6	4	6	5	5	1	
Average			48.0	49.4	57.0	62.1	67.8	65.9	60.0	49.3		
Std. Dev.			.21	2.68	3.54	4.69	2.04	3.55	2.36	3.98		
Maximum			48.1	51.8	62.4	66.5	69.7	70.2	62.4	56.1		
Minimum			47.8	45.6	52.7	55.5	65.3	62.1	56.8	46.5		

MONTHLY EVAPORATION

SALTAIR SALT PLANT Lat: 40° 46' Long: 112° 06' Elev: 4210 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1956					8.31	12.93	15.52	13.78	9.77	5.83		
1957			3.89	6.09	8.07	11.75	14.62	14.16	9.14	4.78		
1958			3.14	5.70	11.49	14.39	15.38	13.28	9.93	6.37		
1959			4.81	7.34	8.71	12.95	14.12	12.94	8.09	4.94		
1960				7.42	10.34	13.65	16.16	13.11	9.76	5.29		
1961				8.11	11.07	14.94	14.89	13.04	8.48	5.41		
1962				7.84	9.10	12.44	13.93	14.33	9.70	8.83		
1963				4.24	9.84	10.17	16.90	13.88	8.10	6.61		
1964					9.12	9.58	15.85	13.10	9.97	5.36		
1965				7.64	8.73	10.51	14.46	11.54	7.18	2.98		
1966				8.39	12.03	13.90	16.81	13.54	9.49	4.61		
1967				7.30	8.40	8.56	13.48	14.21	8.74	5.52	2.65	
1968				5.52	8.76	11.58	15.20	10.58	8.54	5.09	1.93	
1969				6.94	12.50	9.96	13.33	14.02	9.92	4.15		
1970				6.43	9.45	11.87	13.43	13.29	8.47	3.96	2.36	
1971				5.99	8.41	10.96	14.19	12.46	8.97	3.64		
1972				5.61	10.35	12.04	14.56	12.37	8.11	4.05E		
1973				5.50	9.41	12.14	13.15	13.08	7.49E	5.46		
1974				5.87E	9.43	13.81E	15.27	12.93	9.07	4.26E	2.27E	
1975			3.51	5.08E	7.50	10.21	13.87	12.94	8.42	5.20E		
1976				6.85	11.48	12.11	14.21	10.80	8.46	4.58	1.98E	
No. of Yrs.			4	19	21	21	21	21	21	21	5	
Average			3.84	6.52	9.64	11.93	14.73	13.02	8.85	5.09	2.24	
Std. Dev.			.717	1.133	1.393	1.700	1.097	1.025	.824	.123	.295	
Maximum			4.81	8.39	12.50	14.94	16.90	14.33	9.97	8.83	2.65	
Minimum			3.14	4.24	7.50	8.56	13.15	10.58	7.18	2.98	1.93	

MONTHLY WIND MOVEMENT

SALTAIR SALT PLANT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1956					3423	3759	3902	3763	2783	3512	1638	1825
1957	2008	2150	3488	3803	4144	3252	4441		2650	2787	2548	2880
1958	1871	2957	3667	3981	3606	3781	3275	3150	3568	2735	2202	1411
1959	2895	3514	3757	3597	3878	3903	3279	4095	3521	2490	2066	1848
1960	2368	3991	3363	4084	4066	3533	3810	3728	3032	2816	3446	2103
1961				4038	4332	3578	3852	4046	4163	3644	3194	2907
1962	2362	2491	2313	3651	4439	3600	3724	4228	3272	4226	2419	2405
1963	2459	1810	4576	5244	3920	4301	5188	3123	3131	3384	2750	1742
1964	2559	2778	4787	4694	4410	4317	4213	4022	3635	2287	3574	3762
1965	2269	4571	3430	5317	4154	3845	4076	3688	3340	2122	3436	2800
1966	2584	2875	3275	3728	4500	4272	5068	3404	3728	2761	2923	2569
1967	2502	3796	4334	5000	3875	3342	3252	3538	3034	3031	2429	3033
1968				3812	3959	3649	4101	4132	3447	2766	2271	
1969				4265	3845	3761	3110	3546	3109	2846	1918	
1970	3145	2283	3868	4288	3856	3906	3761	3351	3479	2858	3352	3193
1971	3255E	3630	3902	5905	3308	3096	2559	2614	3366	2691	2315	3859
1972	3091	1850E	3417E	3918	3418	4274	3494	3405	3549	2820	2813	2142E
1973	2105E	1989	3845	3506	3351	3938	3328	4079	3048E	3074	3299	3346E
1974	2617E	3995	5143E	4377E	2900	3304E	4127	2925	2275	2035	2312E	2779E
1975	2543	3751	5108	4417	4335	3897	3743	3584	2086	3581	2458	1280E
1976	1490	2734	3804	4227	4046	4231	3401	3791	2807	2031	1354	888
No. of Yrs.	17	17	17	20	21	21	21	20	21	21	21	19
Average	2478	3010	3887	4293	3894	3788	3795	3611	3192	2881	2606	2462
Std. Dev.	462	855	722	645	428	363	623	436	488	577	620	830
Maximum	3255E	4571	5143E	5905	4500	4317	5188	4228	4163	4226	3574	3859
Minimum	1490	1810	2313	3506	2900	3096	2559	2614	2086	2031	1354	888

SALTAIR SALT PLANT — MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1956							85.3	81.7	76.5	62.3		
1957				63.2	71.0	83.7	86.2	84.4	76.2	61.7		
1958			54.6	61.7	79.5	84.0	85.9		76.9	65.3		
1959				67.1	72.0	83.3	86.8	87.1	71.7	61.7		
1960				66.0		82.5		82.0	77.4			
1961				64.0	78.5	83.5	86.6	85.0	68.4	56.9		
1962					70.6	82.0	85.8	83.3	77.3	65.5		
1963				58.8	75.7	77.2		84.7	79.0	68.3		
1964					70.0	77.7	87.8	84.9	74.2	65.1		
1965					68.8	77.8	85.5	83.4	69.3	66.7	52.8	
1966				65.6	76.9	81.7	87.1	84.2	76.0	61.0		
1967				60.6	72.0	78.3	89.9	88.5	77.4	63.5	51.6	
1968				61.4	71.7	81.9	88.1	80.9	74.4	61.9	48.2	
1969				65.0	79.5	78.8	86.9	87.8	78.9	58.4		
1970				58.6	73.9	80.2	86.9	71.8	56.5	48.3		
1971				62.0	71.6	81.5	88.4	86.6	73.4	60.1		
1972				62.6	73.9	81.5	86.0	84.0	73.0	63.4		
1973				62.3	74.3	82.6	86.5	85.0	74.0	62.0		
1974						84.4	85.8	84.8	75.6	63.4	50.9	
1975				56.4		76.8	87.5	80.0	76.2	58.8		
1976					75.5	77.3	86.3	79.8	75.5	61.6		
No. of Yrs.			1	15	17	20	19	20	21	20	4	
Average				62.4	73.8	80.8	86.8	83.5	74.2	61.8	50.9	
Std. Dev.				2.97	3.32	2.58	1.14	3.64	4.91	4.24	1.95	
Maximum				67.1	79.5	84.4	89.9	88.5	79.0	68.3	52.8	
Minimum				56.4	68.8	76.8	85.3	71.8	56.5	48.3	48.2	

SALTAIR SALT PLANT — MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1956							58.1	54.4	48.6	40.2		
1957				40.1	48.3	55.4	59.0	59.7	49.3	42.2		
1958			33.3	37.0	50.6	56.9	58.0		49.6	39.3		
1959				38.6	44.8	54.3	58.0	56.7	47.0	38.0		
1960				38.4		53.0		54.0	52.9			
1961				36.8	45.9	55.9	61.4	60.3	46.9	38.5		
1962					48.0	55.7	63.3	58.1	50.0	41.2		
1963				38.2	50.3	53.0		60.5	55.0	46.0		
1964					46.0	52.9	60.5	57.3	46.6	40.9		
1965					45.0	53.5	60.1	59.8	45.8	42.1	39.0	
1966				39.3	67.5	53.2	60.4	56.6	53.0	38.5		
1967				38.9	46.3	54.0	61.4	60.2	53.5	40.5	35.8	
1968				38.4	44.9	54.8	59.8	57.0	47.7	40.2	35.2	
1969				40.7	50.1	53.1	60.3	59.0	52.7	39.2		
1970				35.8	47.1	54.4	59.6	60.7	46.5	38.5	35.8	
1971				39.7	45.0	53.1	58.9	59.2	46.1	39.4		
1972				38.5	46.6	56.2	57.7	56.5	48.4	44.6		
1973				38.5	46.2	52.6	58.9	58.5	48.0	40.1		
1974						53.4	57.9	54.0	47.2	41.6	35.2	
1975				35.5		49.3	59.2	52.1	47.2	38.1		
1976					46.9	49.1	58.8	53.2	50.2	37.2		
No. of Yrs.			1	15	17	20	19	20	21	20	5	
Average				38.3	48.2	53.7	59.5	57.4	49.2	40.3	36.2	
Std. Dev.				1.48	5.32	1.98	1.46	2.67	2.76	2.22	1.59	
Maximum				40.7	67.5	56.9	63.3	60.7	55.0	46.0	39.0	
Minimum				35.5	44.8	49.1	57.7	52.1	45.8	37.2	35.2	

MONTHLY EVAPORATION

SALT LAKE CITY AIRPORT Lat: 40° 46' Long: 111° 58' Elev: 4220 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1928					9.32	9.98	13.78	12.72	9.50	4.63		
1929				4.40	8.11	12.33	11.61	11.70	6.43	5.21		
1930				7.00	8.60	12.34	14.53	9.92	8.84	3.71		
1931				6.77	9.67	14.27	16.34	12.59	9.70	5.31		
1932				6.14	9.62	10.17	13.30	12.67	8.19	4.90		
1933				6.25	6.70							
No. of Yrs.				5	6	5	5	5	5	5		
Average				6.11	8.67	11.82	13.91	11.92	8.53	4.75		
Std. Dev.				1.021	1.142	1.778	1.730	1.194	1.316	.641		
Maximum				7.00	9.67	14.27	16.34	12.72	9.70	5.31		
Minimum				4.40	6.70	9.98	11.61	9.92	6.43	3.71		

MONTHLY WIND MOVEMENT

SALT LAKE CITY AIRPORT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1928					3439	2947	4152	3628	3073	2376	1465	
1929				3595	3046	3519	2798	3224	2728	2401		
1930												
1931				3515	3633	3883	3292	3008	3085	3032		
1932				3576	3652	2757	3426	3044	2277	2707		
1933				3858	3066							
No. of Yrs.				4	5	4	4	4	4	4	1	
Average				3636	3367	3277	3417	3226	2791	2629		
Std. Dev.				152	296	518	559	284	380	308		
Maximum				3858	3652	3883	4152	3628	3085	3032		
Minimum				3515	3046	2757	2798	2008	2277	2376		

MONTHLY EVAPORATION

SCOFIELD DAM Lat: 39° 47' Long: 111° 07' Elev: 7630 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1948						7.33	10.26	8.14	7.04			
1949							8.37	7.82	5.88	3.47		
1950						9.22	7.46	8.30	4.60	4.74		
1951					5.95	7.02	8.91	6.25	6.43			
1952							7.02	6.68	5.90	4.66		
1953							9.64	6.63	6.64			
1954					7.06	8.20	8.34	8.98	5.14	3.49		
1955					6.23	7.99	9.10	5.17	6.05	3.66		
1956					6.13	7.98	8.77	7.67	7.27			
1957					3.80	7.28	6.92	4.57	5.17			
1958					6.69	9.26	9.78	8.30	5.89			
1959					5.93	8.52	9.52	6.77	4.69			
1960					6.57	9.14	8.06	9.29	5.06			
1961					6.00	9.03	8.17	5.87				
1962					5.48	7.80	8.57	8.42	5.75			
1963					6.39	6.90	.56	5.78	4.03			
1964						5.73	8.24	6.63	5.32			
1965						5.70	5.81	5.84				
1966					6.48	6.89	6.48	6.81	4.41			
1967					5.63	4.99	7.26	5.90	4.26			
1968					5.14	8.01	6.93	4.90	4.45			
1969							6.68	5.56	3.40			
1970						6.79	6.93	6.10	4.89			
1971						7.45	8.67	5.29	4.36			
1972						6.12	8.11E	6.15	4.25E			
1973						6.94	8.93E	8.00	5.52			
1974						10.05	8.85	9.78	6.57			
1975						8.12	7.67	8.07	6.02			
1976						9.21E	9.12	8.52	5.16E			
No. of Yrs.					14	25	29	29	27	5		
Average					5.96	7.67	7.90	6.97	5.34	4.00		
Std. Dev.					.802	1.275	1.784	1.410	.978	.640		
Maximum					7.06	10.05	10.26	9.78	7.27	4.74		
Minimum					3.80	4.99	.56	4.57	3.40	3.47		

SCOFIELD DAM

MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1949							1707	1736	1743	1776	1845	
1950						2453	1772	1895	1284	1705	1818	
1951					2088	2083	1698	1186	1410	1413		
1952							4092	1484	1448	1415	1447	
1953						3062	1635	1027	1704			
1954					2960	3002	1643	2091	1731	1960	2541	2391
1955	2780	1128	3583	3607	2644	2465	1650	840	1504	1395		
1956					2339	2030	1341	1477	1751			
1957					1909	2251	794	513	794			
1958					2176	2136	2122	1682	1813	326		
1959					2727	2009	2059	1620	1778			
1960					2421	2269	1569	2510	1706			
1961					2376	1884	1549	1168	1779			
1962					2074	1666	1495	1515	1613			
1963					1986	1713	1340	804	1124			
1964						2347	2144	2371	2104			
1965						1845	1640	1568	2102			
1966					1887	1181	611	676	785			
1967					1919	1400	700	543	526			
1968					1979	1083	380	1337	2052			
1969						1520	2179	1973	1714			
1970						1057	844	745	958			
1971						1237	805	833	1333			
1972						1198	1164E		1289			
1973						1252	2264	2234	2674			
1974						3376	2169	2922	2611	3220	4100	6274
1975	6176	5099	5557	5137	4449	3149	1879	2549	2477	4599	5129	4503
1976	4860	4749	6823	5074	3746	3211	2226	2607	1843	4363	4821	4174
No. of Yrs.	3	3	3	3	16	26	28	27	28	10	7	4
Average	4605	3659	5321	4606	2480	2034	1624	1552	1630	2217	3100	4336
Std. Dev.	1712	2199	1633	866	718	707	722	690	521	1388	1546	1591
Maximum	6176	5099	6823	5137	4449	3376	4092	2922	2674	4599	5129	6274
Minimum	2780	1128	3583	3607	1887	1057	380	513	526	1395	1447	2391

SCOFIELD DAM — MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1967					63.7	69.4	83.4	81.1	71.0			
1968					64.9	73.7	80.6	73.5	66.8			
1969					71.8	69.9	82.9	79.0	68.4			
1970						73.6	81.4	79.2	66.2			
1971						74.8	80.4	77.4	64.7			
1972					67.4	74.8	81.4	77.6	63.4			
1973						74.6	77.8	76.5	65.4			
1974						73.5	77.6	72.8	65.6			
1975						67.9	78.2	74.1	67.3			
1976						66.1	74.6	69.3	62.2			
No. of Yrs.					4	10	10	10	10			
Average					67.0	71.8	79.8	76.1	66.1			
Std. Dev.					3.58	3.21	2.73	3.57	2.50			
Maximum					71.8	74.8	83.4	81.1	71.0			
Minimum					63.7	66.1	74.6	69.3	67.3			

SCOFIELD DAM — MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1967					39.5	44.2	53.8	51.2	44.9			
1968					37.4	45.2	51.3	47.3	39.9			
1969					41.6	44.1	51.8	51.7	44.7			
1970						45.7	53.8	54.3	40.9			
1971						46.1	51.8	53.7	41.9			
1972					41.1	51.3	55.7	51.3	41.6			
1973						46.1	50.1	49.2	39.8			
1974						42.2	47.2	42.4	37.6			
1975						40.4	50.4	45.0	39.8			
1976						36.3	45.0	38.9	37.8			
No. of Yrs.					4	10	10	10	10			
Average					39.9	44.2	51.1	48.5	40.9			
Std. Dev.					1.89	3.97	3.17	5.05	2.49			
Maximum					41.6	51.3	55.7	54.3	44.9			
Minimum					37.4	36.3	45.0	38.9	37.6			

MONTHLY EVAPORATION

SEVIER BRIDGE DAM — Lat: 39° 23' — Long: 112° 02' — Elev: 4980 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1922						11.63	13.19	9.66	9.00			
1923				4.63	9.56	11.04	12.32	10.13	3.01	.81		
1924				2.15	10.08	9.90	14.97	14.74	7.87			
1925					10.36	10.50	12.01	11.49	7.78			
1926				4.98	8.88	12.30		9.94	6.62			
1927				4.01		10.74	11.71	9.29				
1928						14.21	16.75	12.81	9.99			
1929					10.24	13.03	11.90	9.37	7.01			
1930						14.40	15.46	9.47				
1931					6.20	10.40	9.52					
1932					10.56	12.18		13.80				
No. of Yrs.				4	7	11	9	10	7	1		
Average				3.94	9.41	11.85	13.09	11.07	7.33			
Std. Dev.				1.261	1.526	1.531	2.247	2.025	2.222			
Maximum				4.93	10.56	14.40	16.75	14.74	9.99			
Minimum				2.15	6.20	9.90	9.52	9.29	3.01			

SEVIER BRIDGE DAM

MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1922						3610	2430	1840	1602			
1923				4595	4545	4758	3964	3824	3307	3000	2136	
1924			4131	4406	4277	6896	5007	3559	4664	4357	2743	
1925			4977	4383	4203	3879	3351	4402	3694	3320	3190	
1926			2855	4417	4640	5008	3190	3850	2719	1448	2797	1931
1927			3609	3601	4544	4699	3065	2676				
1928					2595	6130	5277	4540	4256	1802		
1929					4422	4917	3584	2489	3291	2829		
1930												
1931					3537	4622	4526					
1932					3963	3578		3417				
No. of Yrs.			4	5	9	10	9	9	7	6	4	1
Average			3893	4280	4081	4810	3822	3400	3362	2793	2717	
Std. Dev.			893	389	655	1055	950	901	1010	1054	435	
Maximum			4977	4595	4640	6896	5277	4540	4664	4357	3190	
Minimum			2855	3601	2595	3578	2430	1840	1602	1448	2136	

MONTHLY EVAPORATION

STRAWBERRY RESERVOIR (East Portal) Lat: 40° 10' Long: 111° 11' Elev: 7606 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1948							8.33	7.70	6.41			
1949						7.07	7.22	7.16	5.34			
1950						8.37	6.96	7.07	4.23	3.74		
1951					6.49	6.42	8.00	5.52	6.12	2.40		
1952						7.79	6.96	7.06	5.51	4.30		
1953						9.44	8.18	6.68	5.87	2.73		
1954						6.98	8.07	7.53	5.17			
1955					6.24	6.97	8.26	5.75	5.69	3.41		
1956					5.93	7.86	8.85	7.60	6.46	3.06		
1957						7.38	7.68	6.16	5.35	1.85		
1958						8.84	9.80	8.97	6.07	3.62		
1959					5.65	7.70	8.15	7.11	4.59	2.76		
1960					6.49	8.33	8.24	8.66	4.95	2.78		
1961					6.74	8.75	8.61	6.50	4.20			
1962						7.66	8.42	8.57	5.91	3.35		
1963							6.81	6.29				
1964									5.81	4.43		
1965						6.04	6.31	6.30	4.40	3.58		
1966							8.13	8.63	4.94			
1967									4.20	3.29		
1968												
1969							7.82	6.78	5.28			
1970						5.89	7.40	7.13	5.45			
1971					5.45		9.02	6.59	5.48			
1972					6.67	6.22	8.62	6.43	5.13			
1973							7.63	7.80E	4.69			
1974							7.38E					
1975								7.10	5.55			
1976						7.84	8.07	8.63	4.68E			
No. of Yrs.					8	18	25	25	26	14		
Average					6.21	7.53	7.96	7.19	5.29	3.24		
Std. Dev.					.481	1.007	.771	.951	.665	.705		
Maximum					6.74	9.44	9.80	8.97	6.46	4.43		
Minimum					5.45	5.89	6.31	5.52	4.20	1.85		

STRAWBERRY RESERVOIR
(East Portal)

MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1948							1878	1881	1836			
1949						2309	1423	1472	1853	1885		
1950						2109	1374	1513	1789	1981		
1951					2538	1869	1415	1422	1928	1996		
1952						1890	1259	1559	1530	1460		
1953						2152	1353	1457	1636	1820		
1954						1922	1335	1506	1566	1630	1426	
1955					2297	1784	1281	840	1646	1813		
1956					1944	1548	1257	1610	1620	1598		
1957						1851	1167	1090	1377	1527		
1958						1960	1903	1648	1810	1563		
1959					2566	1642	1229	1560	1849	1907		
1960					2248	1906	1273	2057	1318	1607		
1961					2124	1529	1304	1184	1876	2045		
1962						1695	1411	1800	1644	1537		
1963							1506	1299				
1964							663		956	1270		
1965						1509	1002	1116	1652	1123		
1966							1376	1522	1252			
1967										1107		
1968												
1969								1093	1241	1188		
1970						1253	866	894	1353			
1971					1876		963	747	1243	1204		
1972					1614E	1008E	1002	855	1282			
1973							895	954	1353	1509		
1974							970E					
1975						1670E	730	723	855			
1976						1495E	933	1377	1018	1290		
No. of Yrs.					8	19	26	25	25	21	1	
Average					2151	1742	1222	1327	1499	1574		
Std. Dev.					330	314	302	364	306	300		
Maximum					2566	2309	1903	2057	1928	2045		
Minimum					1614E	1008E	663	723	855	1107		

STRAWBERRY RESERVOIR
(East Portal)

MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1970						74.8	83.1	80.8	66.7			
1971					64.3		82.3	78.6	66.7			
1972					66.2	75.1	80.7	76.5	65.6			
1973							79.8	77.2	63.5			
1974							81.1					
1975								77.7	69.9			
1976						72.7	82.0	75.1	68.1			
No. of Yrs.					2	3	6	6	6			
Average					65.3	74.2	81.5	77.7	66.8			
Std. Dev.					1.34	1.31	1.19	1.94	2.17			
Maximum					66.2	75.1	83.1	80.8	69.9			
Minimum					64.3	72.7	79.8	75.1	63.5			

STRAWBERRY RESERVOIR (East Portal)

MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1970						47.0	53.3	53.0	41.8			
1971					39.7		52.3	52.9	42.1			
1972					41.2	49.3	52.1	50.8	42.4			
1973							50.8	48.5	40.3			
1974							52.0					
1975							51.9	45.7	41.2			
1976						41.2	51.2	45.0	42.8			
No. of Yrs.					2	3	7	6	6			
Average					40.5	45.8	51.9	49.3	41.8			
Std. Dev.					1.06	4.17	.80	3.49	.90			
Maximum					41.2	49.3	53.3	53.0	42.8			
Minimum					39.7	41.2	50.8	45.0	40.3			

MONTHLY EVAPORATION

UTAH LAKE LEHI Lat: 40° 22' Long: 111° 54' Elev: 4497 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1923					9.27	9.67	11.20	8.99	5.98	2.97	1.44	
1924			2.89	6.36	9.54	12.55	11.49	10.71	7.11	3.79	.66	
1925			3.80	5.97	8.19	7.77	9.79	9.67	6.77	3.45	.79	
1926			3.61	5.98	8.62	10.67	9.82	9.77	7.80	4.47	1.55	
1927			3.14	5.63	8.00	9.98	9.73	8.79	6.40	4.02	1.53	
1928			2.68	4.99	8.45	9.60	10.92	10.27	6.92	4.09		
1929				4.16	8.75	9.80	10.18	7.81	5.53	3.65	.97	
1930				6.00	7.10	10.94	11.02	7.29	5.96	3.09		
1931			3.15	6.71	8.90	11.62	13.12	9.19	8.50	4.01		
1932			2.39	5.65	9.05	8.65	10.58	10.76	6.92	4.12	1.58	
1933			2.55	5.40	6.76	11.91	10.88	9.83	8.68	5.53	1.28	
1934			4.88	8.49	11.74	10.26	13.05	11.02	8.26	5.02	1.23	
1935			3.79	5.58	7.45	12.05	13.32	10.62	7.84	5.38		
1936			3.44	6.23	10.91	9.99	9.81	9.39	7.49	4.01		
1937			2.99	5.61	10.61	10.27	9.36	10.21	7.39	4.03	1.95	
1938			3.14	6.00	7.32	9.72	9.78	10.19	6.81	3.63		
1939			7.00	7.24	9.42	9.87	12.06	9.47	6.12	3.74	1.90	
1940			3.64	5.58	10.17	11.85	12.38	10.94	5.07	4.55		
1941			3.62	4.44	8.80	9.22	9.53	9.31	7.08	3.09	1.46	.54
1942			2.48	6.30	7.45	10.49	10.90	10.31	7.52	4.29	1.75	
1943			3.15	7.14	9.09	10.22	10.59	10.04	7.26	4.17	1.29	
1944			2.09	4.14	8.16	8.13	11.53	10.75	7.49	4.09	1.43	
1945			2.33	4.81	7.57	8.08	9.93	8.83	6.94	4.04	1.28	
1946			3.68	6.38	8.18	12.88	12.46	9.67	7.82	2.90	1.66	
1947			3.54	5.39	8.07	8.14	10.90	8.53	7.54	4.23	.87	
1948				6.17	10.23	9.49	12.46	11.01	8.44	4.01		
1949			2.88	6.94	7.78	9.21	10.66	9.44	6.92	3.18	1.46	
1950			3.19	7.01	7.93	11.39	10.72	10.40	6.44	5.50	1.30	3.48
1951			2.84	5.64	7.49	8.69	10.36	8.86	7.12	3.20	1.13	
1952			1.87	5.30	8.65	10.46	9.80	9.15	7.59	4.56		
1953			3.53	5.11	6.50	10.24	10.32	9.20	6.47	3.97		
1954			2.11	7.21	8.60	9.19	10.97	10.22	7.02	3.79	1.75	

UTAH LAKE LEHI — MONTHLY EVAPORATION CONTINUED

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1955			2.35	5.12	8.18	9.21	11.24	7.98	6.90	4.29		
1956			4.20	5.39	7.65	10.10	11.32	9.82	7.10	3.80		
1957			3.68	4.59	5.98	8.00	9.79	8.25	6.14	3.25		
1958			1.94	4.63	8.04	10.95	10.74	8.45	6.40	4.60		
1959			3.58	6.28	7.08	9.46	9.88	8.45	5.60	3.91		
1960			3.51	6.06	8.17	9.98	9.83	9.92	6.46	3.66	1.62	
1961				6.12	9.22	10.80	11.11	8.13	5.39	3.63		
1962				5.24	7.14	8.30	9.77	9.84	6.86	4.58		
1963			3.57	3.89	7.50	7.88	10.10	8.66	5.23	3.84		
1964				4.54	6.52	6.28	9.15	8.51	6.55	4.28		
1965				4.54	7.17	7.32	9.21	7.16	4.80	3.49	1.95	
1966				5.91	8.19	9.89	9.65	9.23	5.35	3.10		
1967				5.11	5.63	6.62	8.74	8.47	6.10	3.92		
1968			3.58	4.11	6.45	9.02	9.89	6.58	5.87	3.38		
1969				5.44	9.67	7.13	9.82	8.80	6.24	2.73		
1970					7.48	8.24	9.39	8.82	6.20	3.47		
1971				5.16	6.57	9.16	10.88	9.06	6.84			
1972				5.17	8.87	9.01	11.72	8.73	6.04			
1973				4.32E	8.23	8.97	9.28	8.48				
1974					9.05E	9.25	9.71	9.28E	8.11			
1975					6.40	7.84E	9.56	8.74	6.40	4.39E		
1976				5.05E	7.89E	9.37	10.17	9.31	6.63E	3.95		
No. of Yrs.			36	50	54	54	54	54	53	50	24	2
Average			3.24	5.60	8.18	9.55	10.57	9.28	6.76	3.94	1.41	2.01
Std. Dev.			.929	.952	1.253	1.444	1.084	1.003	.900	.632	.351	2.079
Maximum			7.00	8.49	11.74	12.88	13.32	11.02	8.68	5.53	1.95	3.48
Minimum			1.87	3.89	5.63	6.28	8.74	6.58	4.80	2.73	.66	.54

UTAH LAKE LEHI — MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1923					4800	4472	3580	3287	2646	2888	2169	
1924			4220	4503	3769	3761	3418	3181	3451	3302	2901	
1925			3998	3801	3706	3442	2392	3432	3449	2729	1935	2556
1926			3464	3314	3754	3114	2799	3156	3636	2736	2491	2410
1927			4351	4085	4263	3724	2788	3097	2794	2303	2589	2391
1928			3281	4576	3660	3347	2991	3103	2255	2759	2523	2238
1929				3383	3785	3092	3199	2032	2446	1912	1790	
1930												
1931				3778	3319	3201	2546	1927	2965	1978		
1932				3459	3622	2433	2765	2497	1535	2521		
1933				3572	3736	2855	2220	2318	2892	1943		
1934				3433	3570	3009	2310	1779	2369	2300		
1935				3924	3492	2501	2304	2046	1462	2313		
1936				2960	2587	2511	2105	1778	2357			
1937				3750	3200	2728	1547	1821	1620	1619		
1938					2911	2269	1824	1799	1329	1701		
1939				3167	2855	2715	2124	1366	1876	1704	1269	
1940				2996	2682	2413	2120	1742	2039	1641		
1941			2854	3892	3219	2238	1436	1888	2670	2055		
1942			2789	3713	3274	2568	1644	1772	1691	1576		
1943			2746	2983	3182	2900	1573	1954	969	1602	1164	
1944			2978	3053	2886	2540	1669	1425	1632	979	1410	
1945			2849	2955	2437	1579	2184	2383	1773	2074		
1946			3592	2687	2956	2909	2540	2035	2125	2110	2398	
1947			1992	2828	2189	2546	1802	1925	1910	1825	1608	
1948	1615	2868	3095	3531	3340	2021	2567	2511	2069	1524	1771	2132
1949			1971	2533	2669	2129	1650	1191	1327	1787	864	1891

UTAH LAKE LEHI MONTHLY WIND MOVEMENT CONTINUED

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1950	2235	1940	2590	3445	2913	2857	2082	1917	1939	2224	1679	1787
1951	2261	1937	3117	2616	2760	2183	1769	1936	1697	1771	1515	1962
1952	2277	1778	2487	2400	2851	2878	1944	2228	1969	1108	1757	1697
1953	1497	2301	2391	2742	2968	2712	1856	2333	1180	1568	1618	1532
1954	1704	1862	2341	3051	2996	2934	2296	2652	2444	1817	1612	2160
1955	1930	2794	3108	3920	4036	2757	2726	1978	2305	2148	2177	2577
1956	2611	3014	2968	3263	3124	2619	2308	2090	1776	2338	1577	1642
1957	2181	1409	2535	2671	1911	1259	1157	1565	860	1133	1243	1244
1958	1266	1532	2286	2676	1942	2259	1690	1403	2050	1341	1717	800
1959	1422	2344	2900	2420	2810	1985	1518	1333	1523	1553	1328	1471
1960	1225	1949	1834	2716	2497	2075	1208	1866	1197	1651	1657	1634
1961	1189	2246	2778	2987	2773	1651	1398	1233	1633	1667	1554	1214
1962	1688	1699	2171	1760	1938	1331	1227	1759	1311	1553	1188	1089
1963	1134	1010	2165	2118	1860	2169	1445	1246	889	921	1083	740
1964	1112	1927	1939	2325	1631	1140	946	1338	1397	1020	1388	1828
1965	1932	2368	2077	2586	2265	1652	1323	1137	1452	1040	1289	1574
1966	1366	1411	1722	2336	2006	2134	1746	1386	1233	1094	1575	1436
1967	1246	1420	3363	2578	1590	1506	1005	977	1130	1430	1183	1657
1968	1042	1025	1710	2307	1952	1740	1402	1642	1504	1416	1508	1568
1969		3747	2463	2347	2269	1538	1326	1237	1222	1733	1147	1291
1970	951	1202	2372	2492	2227	1838	1641	1278	2126	1645	1845	1497
1971	1549	1823	1601	2256	1869	1781	1498	1461	2149	2087	1574	1868
1972	1586	1561	2358	3369	2108	1852	1640	1173	1592	1604	1490	1775
1973	1274	1312	2833	2714	2192	1645	1383	1309	1479	1509	1428	1517
1974	1209	1476			2702	1658	1507	1257	1231	1019	1192	1225
1975	1271	1628	2751	2700E		1763	1368	1431	1273	1683	1696	691E
1976	744E	1306	2316	2535	2273	1992	1415	1781	1395	1453	1100	873
No. of Yrs.	26	28	40	50	52	53	53	53	53	52	41	33
Average	1535	1889	2684	3044	2872	2395	1942	1894	1873	1796	1634	1635
Std. Dev.	478	641	660	632	733	695	622	617	660	529	457	503
Maximum	2611	3747	4351	4576	4800	4472	3580	3432	3636	3302	2901	2577
Minimum	744E	1010	1601	1760	1590	1140	946	977	860	921	864	691E

UTAH LAKE LEHI — MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1953						85.5	93.3	86.3	79.7	63.2		
1954						82.8	90.8	84.7	77.8	64.3	53.7	
1955					78.3	86.5	95.0	93.0	82.3	69.6		
1956				69.4	81.4	91.8	95.1	85.3	78.2	63.9		
1957				64.6	73.9	85.7	91.1	88.5	79.2	65.3		
1958			53.5	63.7	82.4	88.4	91.8	91.5	79.1	68.8		
1959			58.4	68.1	73.6	88.1	90.2	87.7	74.7	64.1		
1960			59.4	68.3	76.6	86.1	91.6	86.5	80.8	63.8	49.8	
1961				66.4	76.5				72.7	61.2		
1962				67.6	71.4	84.9	88.3	86.4	79.2	66.6		
1963			59.8	63.7	79.5	85.0	91.3	91.3	81.5	71.1		
1964					75.8	81.6	93.8	88.5	78.1	67.4		
1965				66.9	74.3	82.4	89.1	85.3	72.5	66.2	55.2	
1966				67.6	81.8	85.8	92.7	89.7	81.7	63.7		
1967				62.1	72.3	82.9	93.0	90.5	80.9	65.5	55.8	
1968			60.8	63.9	74.6	86.0	92.7	83.1	76.2	62.3		
1969				68.2	82.2	81.9	92.2	90.8	81.0	58.9		
1970				60.8	76.4	85.0	91.5	90.4	74.1	59.2		
1971				65.3	76.4	85.3	90.5	88.9	73.9			
1972				65.4	76.8	86.3	89.5	87.8	75.4			
1973				63.0	77.3	85.9	90.2	88.6		67.8		
1974					75.1	87.8	91.3	88.5	78.3	64.2		
1975					72.8	81.2	91.0	85.0	77.8	62.5		
1976				65.3	78.4	82.3	91.5	86.8	75.9	61.7		
No. of Yrs.			5	18	22	23	23	23	23	22	4	
Average			58.4	65.6	76.7	85.2	91.6	88.0	77.9	64.2	53.6	
Std. Dev.			2.86	2.41	3.22	2.54	1.71	2.53	2.96	3.22	2.70	
Maximum			60.8	69.4	82.4	91.8	95.1	93.0	82.3	71.1	55.8	
Minimum			53.5	60.8	71.4	81.2	88.3	83.1	72.5	59.2	49.8	

UTAH LAKE LEHI — MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1953						52.4	59.5	59.1	49.8	40.3		
1954						55.4	61.6	56.0	53.2	39.4	34.0	
1955					46.1	52.0	57.8	60.5	48.2	39.3		
1956				38.8	48.3	53.0	57.5	51.6	47.4	38.7		
1957				38.5	45.9	53.6	58.3	59.4	44.7	40.3		
1958			34.4	35.9	45.7	52.3	54.4	58.2	47.7	37.6		
1959			34.0	38.4	44.9	53.5	57.1	56.0	48.1	37.7		
1960			35.8	37.4	43.6	52.1	57.4	52.9	50.9	38.4	33.9	
1961				35.7	43.2				43.7	36.5		
1962				37.7	44.5	49.4	56.0	51.7	47.3	40.6		
1963			35.3	36.5	50.8	57.7	63.8	68.0	65.0	61.7		
1964					53.0	59.4	67.0	64.2	53.9	48.5		
1965				47.7	52.9	58.4	64.1	57.7	45.2	40.4	40.1	
1966				38.1	46.4	52.7	60.5	54.5	49.2	39.5		
1967				37.4	42.5	52.7	60.5	59.6	50.6	41.1	37.6	
1968			37.6	38.0	45.5	53.9	60.8	57.0	47.9	41.6		
1969				40.2	49.7	52.9	60.2	60.6	53.5	39.3		
1970				36.9	46.4	54.1	60.2	60.5	46.0	39.3		
1971				40.2	46.5	53.0	59.4	60.1	46.7			
1972				39.4	45.7	55.4	58.9	56.9	49.2			
1973				38.5	47.0	52.9	58.8	58.1		42.1		
1974					47.0	54.6	60.2	54.0	48.7	41.1		
1975					43.2	52.7	61.9	55.1	51.3	41.2		
1976				39.7	48.7	51.1	60.3	56.4	51.5	40.0		
No. of Yrs.			5	18	22	23	23	23	23	22	4	
Average			35.4	38.6	46.7	53.7	59.8	57.7	49.6	41.1	36.4	
Std. Dev.			1.41	2.63	2.89	2.31	2.75	3.83	4.34	5.15	3.01	
Maximum			37.6	47.7	53.0	59.4	67.0	68.0	65.0	61.7	40.1	
Minimum			34.0	35.7	42.5	49.4	54.4	51.6	43.7	36.5	33.9	

MONTHLY EVAPORATION

VERNAL Lat: 40° 27' Long: 109° 31' Elev: 5280 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1948				4.68	8.09	6.85	7.95	7.14	6.01			
1949							7.22	6.84	5.36	2.95		
1950				6.22	6.38	8.62	6.88	6.40	4.60	3.75		
1951							7.32	4.99	4.08			
1952						7.33	7.34	5.97	5.10			
1953				4.84	6.30	7.49	6.88	5.94	5.09			
1954					7.91	7.90						
No. of Yrs.				3	4	5	6	6	6	2		
Average				5.25	7.17	7.64	7.27	6.21	5.04	3.35		
Std. Dev.				.847	.962	.665	.394	.764	.658	.566		
Maximum				6.22	8.09	8.62	7.95	7.14	6.01	3.75		
Minimum				4.68	6.30	6.85	6.88	4.99	4.08	2.95		

MONTHLY WIND MOVEMENT

VERNAL

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1948				2380	2220	1020	790	570	780	800		
1949							838	706	864	485	720	
1950				2361	1967	1753	647	444	225	379	867	657
1951	1021	934		2112	2133		1114	751	674			
1952						1192	479	673	592			
1953				2264	2446	1141	391	607	517			
1954					1779	1523						
No. of Yrs.	1	1		4	5	5	6	6	6	3	2	1
Average				2279	2109	1326	710	625	609	555	794	
Std. Dev.				123	253	303	263	110	226	219	104	
Maximum				2380	2446	1753	1114	751	864	800	867	
Minimum				2112	1779	1020	391	444	225	379	720	

MONTHLY EVAPORATION

WANSHIP DAM Lat: 40° 48' Long: 111° 24' Elev: 5950 ft.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1955								5.81	5.93	4.13		
1956					6.52	8.31	7.16	6.69	6.29	3.66		
1957					5.20	6.25	7.17	7.14	4.86	2.81		
1958					7.87	8.36	8.94	7.77	5.69			
1959						7.65	8.06	6.70	4.34			
1960						7.18	5.96	6.27	3.98			
1961						7.30	6.74	5.60	3.96			
1962						7.45	6.81	6.94	5.47			
1963						5.95	7.07	4.16	3.04	2.50		
1964							5.38	8.86	8.12	6.54		
1965						6.19	7.09	5.92	4.77			
1966						8.33	9.04	7.78	4.63			
1967						5.53	7.11	5.36	3.61			
1968						7.05	7.21	4.84	3.74			
1969					8.68	5.33	7.24	7.33	5.47			
1970					6.80	6.67	7.43	7.92	5.73	3.12E		
1971					5.25	7.03	8.15	6.55	5.37	3.29		
1972					7.06E	6.60	8.23	7.06	4.87			
1973						6.80	7.80	8.25	4.85E	4.12E		
No. of Yrs.					7	17	18	19	19	8		
Average					6.77	6.94	7.37	6.68	4.99	3.77		
Std. Dev.					1.277	.922	.917	1.206	1.155	1.261		
Maximum					8.68	8.36	9.04	8.86	8.12	6.54		
Minimum					5.20	5.33	5.38	4.16	3.04	2.50		

WANSHIP DAM — MONTHLY WIND MOVEMENT

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1955									650	1388	1852	
1956					3129	1481	610	1145	1554	2160		
1957					2102	1044	936	1584	890	1082		
1958					2461	1565	1078	1016	1507			
1959						1057	792	1244	1058			
1960						785	159	847	800			
1961						802	746	527	1236			
1962						1045	936	1699	1341			
1963						1014	811	495	480	680		
1964						1091	516	914	1200			
1965						1098	744	465	674			
1966						1200	712	533	431			
1967						837	174	187	264			
1968						1019		633	762			
1969					1365	798	632	731	759	667		
1970					1363	707	410	663	1011	898E		
1971					1268	630	231	196	819	700		
1972					1136E	432						
1973						512	696	1563	1295	1774		
No. of Yrs.					7	18	16	17	18	8	1	
Average					1832	951	636	850	930	1169		
Std. Dev.					752	298	275	467	371	559		
Maximum					3129	1565	1078	1699	1554	2160		
Minimum					1136E	432	159	187	264	667		

WANSHIP DAM — MAXIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1971					72.4	84.8	92.2	89.5	76.4	63.8		
1972					75.3	85.3	91.8	88.1	76.6	65.1		
1973						86.2	89.9	87.2	75.1	61.5		
No. of Yrs.					2	3	3	3	3	3		
Average					73.9	85.4	91.3	88.3	76.0	63.5		
Std. Dev.					2.05	.71	1.23	1.16	.81	1.82		
Maximum					75.3	86.2	92.2	89.5	76.6	65.1		
Minimum					72.4	84.8	89.9	87.2	75.1	61.5		

WANSHIP DAM — MINIMUM WATER TEMPERATURE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1971					41.3	47.0	53.5	54.5	43.3	38.3		
1972					42.8	51.4	54.3	53.0	45.0	43.2		
1973						49.1	54.2	51.9	44.3	38.5		
No. of Yrs.					2	3	3	3	3	3		
Average					42.1	49.2	54.0	53.1	44.2	40.0		
Std. Dev.					1.06	2.20	.44	1.31	.85	2.77		
Maximum					42.8	51.4	54.3	54.5	45.0	43.2		
Minimum					41.3	47.0	53.5	51.9	43.3	38.3		