SHRP-P-621

Development of the LTPP Climatic Database

PCS/LAW Engineering
12240 Indian Creek Court, Suite 120
Beltsville, Maryland 21705-1241

Strategic Highway Research Program
National Research Council
Washington, DC 1993

SHRP-P-621
Contract P001B

Program Manager: *Neil F. Hawks*
Project Manager: *Cheryl Allen Richter*
Production Editor: *Marsha Barrett*
Program Area Secretary: *Cindy Baker*

January 1993

key words:
climatic
databases
general pavement studies
long-term pavement performance
specific pavement studies
weather information

Strategic Highway Research program
National Academy of Sciences
2101 Constitution Avenue N.W.
Washington, DC 20418

(202) 334-3774

Acknowledgments

The research described herein was supported by the Strategic Highway Research Program (SHRP). SHRP is a unit of the National Research Council that was authorized by section 128 of the Surface Transportation and Uniform Relocation Assistance Act of 1987.

Contents

Abstract

Although the effects of climatic factors on pavement performance have long been recognized as important, those effects remain largely unquantified, because individual pavement research projects to date have generally been restricted to limited geographic areas with more or less uniform climatic conditions, and relatively short time spans, making it difficult to separate the effects of climatic factors from those of loading. By virtue of the relatively broad geographic and climatic distribution of the test sections involved, and its long-term nature, the Long-Term Pavement Performance (LTPP) program will rectify this situation. The LTPP climatic data base is intended to provide the weather and climatic information needed to characterize the environment in which each LTPP test sections has existed, from the time of construction through the LTPP monitoring period. This report summarizes the development of the LTPP climatic database, including the identification and sources of data, selection and verification of weather stations, actual data retrieval from available sources, and data quality assurance. Future activities such as updates and expansion of the database and the collection of ground-truth data are also discussed in the paper.

INTRODUCTION

SHRP's Long-Term Pavement Performance (LTPP) research is a twenty year study of pavement performance, and the factors which affect it. To meet these goals, two series of experiments have been established within the LTPP research program. The GPS, or General Pavement Studies involve test sections on existing pavements, whereas the SPS, or Specific Pavement Studies, involve specially constructed pavement test sections. Both sets of test sections are, or will be, located on in-service highways throughout the United States and Canada, and hence subjected to "real" non-idealized traffic loadings, and a wide range of environmental conditions.

The data to be collected for the SHRP LTPP research can be divided into five categories: (1) inventory data, describing the location, geometry, and construction history of the test section; (2) monitoring data such as distress, profile and deflection, which are collected to monitor changes in the pavement over time; (3) traffic data, which describe the loading to which the pavement is subjected; (4) climatic data, describing the environmental conditions to which the pavement is subjected; and (5) maintenance and rehabilitation data, describing and defining any and all maintenance applied to the pavement. This report will focus on the collection and storage of climatic data for the SHRP LTPP test sections.

Although the effects of climatic factors on pavement performance have long been recognized as important, those effects remain largely unquantified, because individual pavement research projects to date have generally been restricted to limited geographic areas with more or less uniform climatic conditions, and relatively short time spans, making it difficult to separate the effects of climatic factors from those of loading. By virtue of the relatively broad geographic and climatic distribution of the test sections involved, and its long-term nature, the LTPP program will rectify this situation.

Over the past several years, SHRP has mounted a significant effort to identify, collect and store climatic data for the LTPP GPS test sections. This effort culminated in the development of SHRP's LTPP climatic data base, which contains the weather and climatic information needed to characterize the environment in which each GPS test section has existed, from the time of construction through the LTPP monitoring period.

This report looks at the development of the LTPP climatic data base -- identification of data elements and sources of data, development of weather station selection criteria and associated feasibility study. The actual data collection and quality assurance process -- selection and verification of weather stations, data retrieval, and data quality assurance -- is described. Future activities -- verification of the data base contents and development and implementation of plans for the collection of ground truth data, expansion of the climatic data base to include SPS sections, and future updates of the LTPP climatic data base -- are also discussed.

DATA BASE DEVELOPMENT

Background

Early plans for the collection of climatic data are documented in the draft "Data Collection Guide for Long-Term Pavement Performance Studies". Those plans identified a list of climatic data elements to be collected in conjunction with the GPS experiments, with the assumption that the primary source of climatic data for use in the LTPP studies would be the National Climatic Data Center (NCDC), in part because the NCDC is the only known source of nationwide historic climatic data.

With the draft data collection guide information as a starting point, preliminary plans for collecting and storing climatic data for GPS test sections were developed under SHRP's LTPP Technical Assistance Contract. These plans, like the early ones, assumed that the bulk of the climatic data would be obtained from the NCDC (and, for the Canadian sites, the Canadian Climatic Center (CCC)) and their focus remained on the GPS experiments. However, a few climatic data elements -- raw data, derived data and statistics -- were added to the list originally proposed.

Before proceeding with the discussion of the preliminary plans, it is important to note that differences exist between the NCDC and the CCC. The most basic difference is that the data is stored in two different systems of units, U.S. Customary for the NCDC and SI for the CCC. The second major difference is that several of the parameters collected by NCDC are <u>not</u>

collected by CCC. The parameters of interest to this effort that are not collected by CCC are average wind speed, percent sunshine, and percent sky cover.

In addition, NCDC has two distinct, well-defined data collection efforts -- First Order and Cooperative. The difference between the two lies in the list of data elements collected; First Order stations collect all cooperative data elements plus a number of additional data elements. The CCC does not make such a formal distinction. The only way to determine if a Canadian weather station is First Order is to physically examine the contents of the database to see if these parameters exist. If they do exist, the station can be considered First Order for the purposes of this study.

Identification of Weather Stations

Development of the preliminary plans began with the definition of a "perfect" (for LTPP purposes) weather station. First, the weather station must be in "close" (within 5 miles) proximity to the pavement test section. Secondly, the types of data collected and their accuracy must be equivalent to at least a First Order weather station. Although an attempt to establish "proximity" guidelines was made, it became apparent from the start (as expected) that weather stations could not be found in "close" proximity to most SHRP LTPP test sites. Consequently, the preliminary plans were developed around the concept that data from up to five nearby weather stations would be used to estimate site specific climatic conditions. This estimate is referred to as "virtual" weather data.

The choice of five weather stations to represent climatic conditions at a given site was somewhat arbitrary and may yield a misleading impression of data coverage for a given site. In fact, one "good" station is all that is needed for a given site. In terms of the "virtual" station, an "interpolation" algorithm using a 1/R weighting scheme was originally recommended, where R is the distance from the weather station to the site. This scheme was later modified to $1/R^2$ based on the recommendations of SHRP's Environmental Data Expert Task Group (ETG). In any case, the closer the weather station is to the site, the greater its effect is on the calculated values for the "virtual" station. For example, any weather station three times as far from the GPS site as the closest weather station will only contribute 10% to the calculated parameter

based on the distance weighting used. Figure 1 shows an example of a GPS site and the five weather stations selected to describe its environmental conditions.

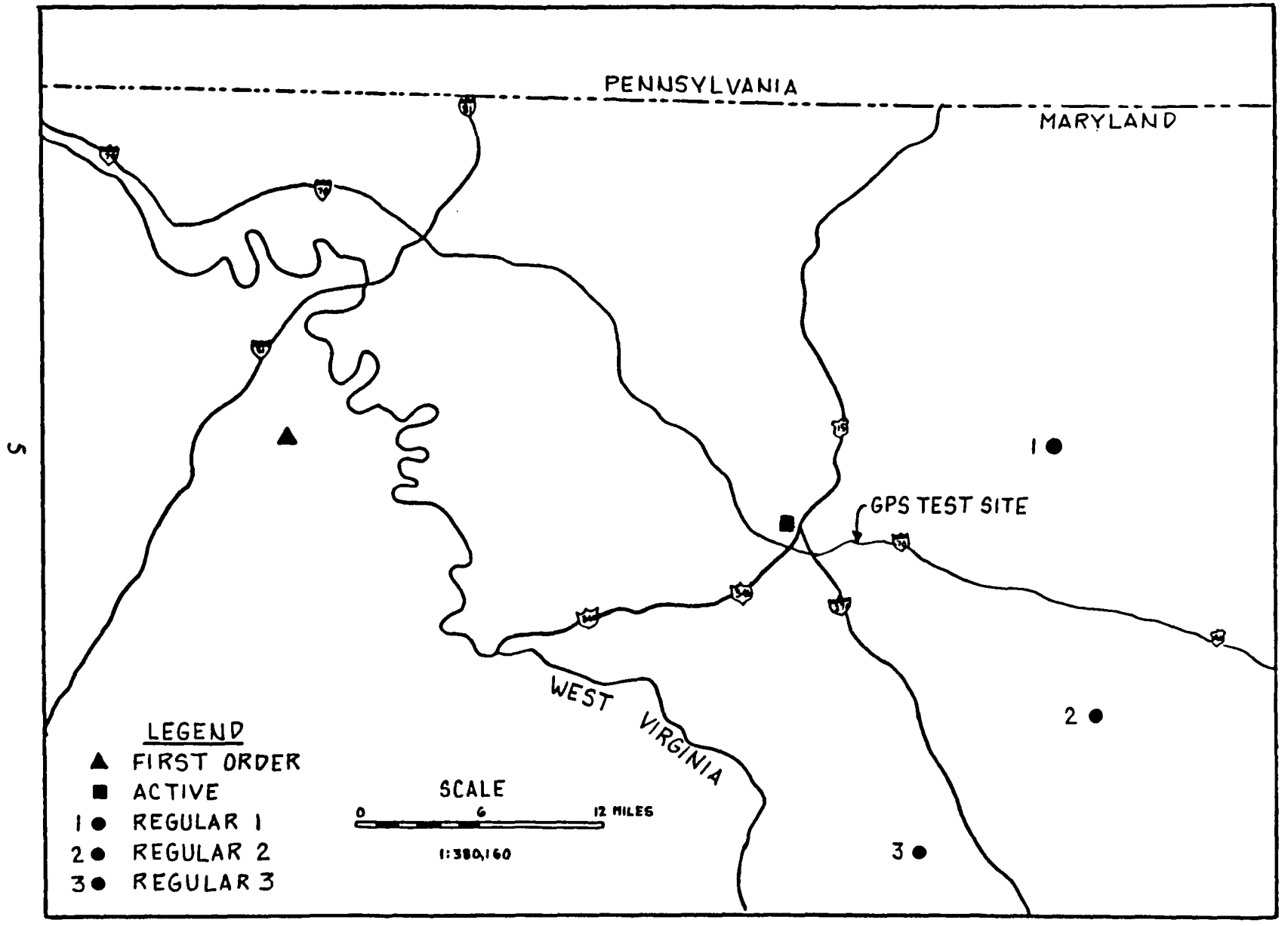
The criteria established for the identification of weather stations in the vicinity of the pavement test section are as follows. For each GPS test site identify:

- At least one active First Order weather station with 50% data coverage for the record length to be used;
- The closest active Cooperative weather stations satisfying the following criteria:

    1) At least 50% data coverage for the record length to be used;
    2) Record length equal to the larger of (a) pavement age and (b) five years;
    3) The following data elements recorded as a minimum: minimum daily temperature; maximum daily temperature; daily precipitation; and daily snowfall (if applicable);

- The three closest active or inactive (with at least part of the record length covering years after the pavement construction date), First Order or Cooperative weather stations other than those included in a) and b);

Although the designations First Order and Cooperative apply to U.S. weather stations only, equivalent categories also apply to the Canadian weather stations. Also note that the plan called for the identification process to be global -- not limited by state or provincial borders to allow the consideration of weather stations close to a site but located in a neighboring state or province. It should also be noted that only First Order weather stations collect the full range of data desired, while Cooperative weather stations generally collect only the minimum data set described here.


PENNSYLVANIA
MARYLAND
WEST VIRGINIA
GPS TEST SITE
1
2
3
S
LEGEND
FIRST ORDER
ACTIVE
1 REGULAR 1
2 REGULAR 2
3 REGULAR 3
SCALE
0
6
12 MILES
1:380,160

Climatic Data Elements

On completion of the weather station identification process, the preliminary plans called for the acquisition of climatic data for each station from the NCDC and CCC files. In particular, the data elements shown in Table 1 were to be acquired, where available, for each station. Due to limitations associated with the NCDC data collection procedure, however, only the first six data fields listed in Table 1 are available from Cooperative weather stations and the rest are available only from First Order weather stations. Also, the first five elements in this list are generally available for the entire time span, while the remaining eight are predominantly available only after 1984.

The preliminary plans also called for the computation of the monthly average, standard deviation, skewness, and kurtosis for all data elements shown in Table 1, except daily occurrences of weather, for each year. Table 2 summarizes the equations recommended for use in these computations. Where some daily data were missing, the monthly statistical parameters were to be calculated using the available data only, without substitution for missing data. In addition, the following "derived" data were to be calculated and ultimately stored in the LTPP climatic data base:

- total monthly precipitation
- total monthly snowfall
- number of air freeze-thaw cycles (monthly)
- mean daily temperature range (monthly)
- number of wet days (precipitation greater than 0.01 inches)
- number of high intensity precipitation days (precipitation greater than 0.5 inches)
- air freezing index
- number of days with maximum temperatures above 90°F (monthly)
- number of days with minimum temperature below 32°F (monthly)

It should be clearly noted that the average monthly values stored within the database are average daily values for that parameter for that month. For example, the average precipitation field for a particular month contains the average daily precipitation for that month.

TABLE 1 - CLIMATIC DATA ELEMENTS

Data Element	NCDC Designation
1. Maximum Daily Temperature	TMAX
2. Minimum Daily Temperature	TMIN
3. Mean Daily Temperature	MNTP
4. Daily Precipitation	PRCP
5. Daily Snowfall	SNOW
6. Daily Occurrence of Weather	DYSW
7. Daily Average Wind Speed	AWND
8. Peak Gust Wind Speed and Direction	PKGS
9. Percent of Possible Sunshine	PSUN
10. Average Sky Coverage - Sunrise to Sunset	SCSS
11. Average Sky Coverage - Midnight to Midnight	SCMM
12. Daily Minimum Relative Humidity	MNRH
13. Daily Maximum Relative Humidity	MXRH

NOTES:

1. For each data element, the following monthly statistics are determined:

    a. Mean
    b. Standard deviation
    c. Skewness
    d. Kurtosis

2. The following derived data are also determined:

    a. Total monthly precipitation
    b. Total monthly snowfall
    c. Number of air freeze-thaw cycles - monthly
    d. Mean daily temperature range - monthly
    e. Number of wet days (precipitation 70.01 in.)
    f. High intensity precipitation occurrences (precipitation > 0.5 in./day)
    g. Freezing index
    h. Number of days with temperature > 90°F - monthly
    i. Number of temperature < 32°F - monthly

TABLE 2

The following formulas shall be used in these calculations:

$$\bar{X} = \frac{\sum_{i=1}^{n} X_i}{n}$$

$$S^2 = \frac{\sum_{i=1}^{n} (X_i - \bar{x})^2}{n}$$

$$\alpha_3 = \frac{\frac{\sum_{i=1}^{n} (X_i - \bar{x})^3}{n}}{S^3}$$

$$\alpha_4 = \frac{\frac{\sum_{i=1}^{n} (X_i - \bar{x})^4}{n}}{S^4}$$

where:

$\bar{x}$: monthly average;

S: monthly standard deviation;

α_3: monthly kurtosis;

α_4: monthly skewness;

X_i: value of a data element at the ith day; and

n: number of days with records in a month.

Of the calculated parameters cited above, only the air freezing index and air freeze-thaw cycles contain any complexity. For air freezing index, each days' minimum temperature is compared to 32°F (0°C for Canadian GPS sites) and if it is below freezing, then the number of degrees below freezing is added to both the current month's air freezing index and the current year's air freezing index. If the daily minimum temperature is missing, the missing data count is incremented for both the monthly count and the yearly count. Air freeze-thaw cycles are calculated by comparing daily minimum (TMIN) and daily maximum (TMAX) temperatures to the freezing point and to each other. Each air freeze-thaw cycle consists of one sequence of a TMIN below freezing followed by a TMAX above freezing followed by a TMIN below freezing. An example of the process is provided in Appendix A.

In addition to the climatic data elements, it was recommended that the following information be stored in the SHRP climatic data base in order to characterize the weather stations: weather station name, number, and type (First Order or Cooperative); distance from applicable SHRP test site; elevation; bearing with respect to test site; and, data coverage for temperature and moisture.

Finally, it should be noted that other data elements were considered for inclusion in the LTPP climatic data base, but were rejected for one or more reasons. For example, the Thornthwaite Moisture Index (TMI) was not included for several reasons. Currently, most TMI values are obtained by approximating the location of interest on a map with contours of constant TMI. Because such maps are readily available and because the "data" derived from them is inherently imprecise, it was felt that storage of TMI values derived from maps in the climatic data base was not warranted. An alternative method for determining the TMI value involves calculating it, based in part on pan evaporation rates. However, because pan evaporation rates are not widely available, TMI values are not included in the data base.

Another data element initially intended to be included in the climatic data base is solar radiation. Solar radiation data was indeed collected by NCDC until 1984 at a few sites. At some point before that date, however, it was discovered that the measured values were highly unreliable, and NCDC terminated their collection. There have been several efforts since that date to correct the collected data, but they have thus far proven ineffective. Therefore, SHRP elected not to store these suspect values.

Climatic Data Base

Having established the climatic data elements and sources of information, the last step in the development of the preliminary plans dealt with the formulation of the LTPP climatic data base. In view of the massive data storage requirements (estimated at 3 gigabytes) and after much deliberation, a data base structure comprised of three levels was recommended. The lowest data base level would contain the raw NCDC and CCC climatic data, processed NCDC and CCC data and monthly statistical parameters would be stored in the mid-level data base, and the monthly statistical parameters would be stored at the highest level (i.e., National Pavement Performance Data Base). Details of the recommended data base organization are as follows.

Raw Climatic Data: The lowest level of the data base (referred to as the "low level" database) would consists of daily NCDC and CCC data, cleansed of unnecessary codes and flags, and stored "off-line" on long-term storage media. The data would be stored in its original system of units (U.S. customary for NCDC data, and SI for CCC data) for individual weather stations, without direct linkage to individual pavement test sites. Statistical parameters would not be stored at this level.

Daily Data, Statistical Parameters, and Derived Data: The second level of the data base (referred to as the "middle level" database) would include daily data for individual weather stations and a "virtual" weather station corresponding to each test section, as well as the calculated statistical parameters and derived data for all of these stations. Data for the "virtual" station would be created using the following interpolation algorithm:

$$V_m = \frac{\sum_{i=1}^{k}\left(\frac{V_{mi}}{R_i^2}\right)}{\sum_{i=1}^{k}\left(\frac{1}{R_i^2}\right)}$$

where V_{mi} = value of a data element on day m, station i; R_i = distance of weather station i from the site; V_m = calculated data element for day m, for the "virtual" weather station; and k = number of weather stations for the site (up to 5). All data at this level

would be stored in U.S. customary units for U.S. sites and SI units for Canadian sites. This data is stored "off-line", and is associated with specific test sites for easy recovery.

Monthly Summary Data: The final level of the data base (referred to as the "top level" database) would contain monthly summary data (calculated statistical parameters and derived data) from the individual weather stations as well as the "virtual" station. This portion of the climatic data base would be included in the National Pavement Performance Data Base. Forms containing the desired fields are presented in Figure 2.

As the storage scheme outlined above was being developed, consideration was given to processing the data, and retaining only the final "virtual" values in the National Pavement Performance Data Base, with the thought that researchers desiring more detailed data could always go to NCDC and CCC for the original data. However, the members of the Environmental Data ETG felt strongly that this was not an appropriate course, because they felt that a significant number of researchers were likely to want the raw data, and that they should not have to duplicate SHRP's efforts in acquiring the data. They also felt that it was important to have the "real" weather station data alongside the "virtual" data, so that researchers could evaluate the viability of the "virtual" data for themselves, in light of the individual weather station values. Also, it was suggested that the use of data from the closest weather station would be preferable to the use of "virtual" data in some instances. Thus, it was recommended that both measured and "virtual" data be stored in the National Pavement Performance Data Base.

DATA COLLECTION AND QUALITY ASSURANCE

Subcontractor Selection Process

The preliminary data collection plans were completed by SHRP's LTPP Technical Assistance Contractor in June of 1990 and submitted to the Environmental Data ETG for review, shortly thereafter. These plans were also presented and discussed at the August 7-8,

SHRP LTPP P-001 ENVIRONMENTAL DATA SHEET

SHRP LTPP PROJECT ID#1 _____ ID#2 _____ ID#3 _____ ID#4 _____ ID#5 _____

WEATHER STA. LOC. _____ WEATHER STA. # _____ STATION TYPE _____

YEAR _____

WEATHER STATION DATA

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
MEAN DAILY TEMPERATURE (°F)												
STANDARD DEVIATION												
SKEWNESS												
KURTOSIS												
MEAN MAX. DAILY TEMPERATURE (°F)												
STANDARD DEVIATION												
SKEWNESS												
KURTOSIS												
MEAN MIN. DAILY TEMPERATURE (°F)												
STANDARD DEVIATION												
SKEWNESS												
KURTOSIS												
AIR FREEZE-THAW CYCLES												
MEAN DAILY TEMPERATURE RANGE												

Figure 2: Environmental Data Sheet

WEATHER STATION DATA (Page 2)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
STANDARD DEVIATION												
SKEWNESS												
KURTOSIS												
MEAN WIND VEL. (M.P.H.)												
STANDARD DEVIATION												
SKEWNESS												
KURTOSIS												
MEAN GUST WIND SPEED												
STANDARD DEVIATION												
SKEWNESS												
KURTOSIS												
MEAN DAILY PRECIP.												
STANDARD DEVIATION												
SKEWNESS												
KURTOSIS												
TOTAL PRECIPITATION (inches of water)												
NUMBER WET DAYS (above "trace"/0.01")												
HI INTENSITY PREC. OCCUR. (0.5"/day)												

Figure 2: Continued

WEATHER STATION DATA (Page 3)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
MEAN DAILY SNOWFALL												
STANDARD DEVIATION												
SKEWNESS												
KURTOSIS												
TOTAL SNOWFALL (inches)												
MEAN DAILY PERCENT SUNSHINE												
STANDARD DEVIATION												
SKEWNESS												
KURTOSIS												
MEAN DAILY SKY COVERAGE SUNRISE TO SUNSET												
STANDARD DEVIATION												
SKEWNESS												
KURTOSIS												
MEAN DAILY SKY COVERAGE MIDNIGHT TO MIDNIGHT												
STANDARD DEVIATION												
SKEWNESS												

Figure 2: Continued

WEATHER STATION DATA (Page 4)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
KURTOSIS MEAN DAILY MAX RELATIVE HUMIDITY												
STANDARD DEVIATION												
SKEWNESS												
KURTOSIS MEAN DAILY MIN RELATIVE HUMIDITY												
STANDARD DEVIATION												
SKEWNESS												
KURTOSIS												

COMMENTS: _____

Figure 2: Continued

1990 meeting of the Environmental Data ETG, held in Washington, D.C. Specific recommendations resulting from this meeting have been previously discussed (e.g., revised interpolation algorithm for "virtual" stations) or are discussed later in the report (e.g., collection of ground truth weather data).

Upon approval of the plans, work began in earnest towards the physical development of the LTPP climatic data base. To make this process as efficient and cost-effective as possible, it was recommended at the August 1990 ETG meeting that the actual data collection and data base population effort be done by a company experienced with this type of work. In December 1990, a request for proposal (RFP) was submitted to a number of weather consultants throughout the U.S. and Canada. The major objectives of the work effort detailed in the RFP were:

- To identify weather stations in the vicinity of pavement test sites included in the GPS study, and
- To acquire and process data from various weather stations for each of the above sites and to develop a data base following specifications included in the RFP.

In essence, the end product of the subcontractors effort was to be the development of the climatic data base for 777 GPS test sites.

To accomplish these objectives, three separate phases were outlined in the RFP. Under Phase I, the subcontractor was required to identify weather stations in the vicinity of the GPS pavement test sites using the criteria detailed earlier in the report and approved by the Environmental Data ETG, and to provide the list of weather stations to SHRP for review and approval. The Phase II work effort addressed the likely need for the identification of additional weather stations as a result of more pavement test sites being added to the GPS experiments or to replace, for one reason or another, those previously identified. Finally, under Phase III, the subcontractor was required to obtain and process the data for the final list of weather stations. It was initially estimated that 300 First Order and 2,000 Cooperative weather stations would be used in the development of the climatic data base for the GPS experiments.

In all, eight companies responded to the RFP. However, after a detailed review of the proposals, the number of companies was reduced to two. Although both of these firms were highly qualified to undertake the specified work, the subcontract was awarded to EarthInfo, Inc.

Selection of Weather Stations and Data Base Population

Formal development of the LTPP climatic data base began with the submittal of the list of GPS test sites to EarthInfo. Using the latitude and longitude data provided for each test site on this list, EarthInfo proceeded with the identification of the required five weather stations in the vicinity of the GPS test sites which satisfied the criteria discussed earlier -- e.g., for each site identify at least one active First Order station; identify the closest active or Cooperative weather stations with at least 50% data coverage for the record length to be used; identify the next three closest active or inactive, First Order or Cooperative weather stations; at least one station should have a record length of 10 years.

During the course of selecting the weather stations, many instances of errors in the reported location of the GPS sites came to light. Many of these errors were simple typographical errors, and many were the result of refining the location of the GPS site. Errors as large as several degrees of latitude or longitude were not uncommon. As a result of correcting these errors, many GPS sites had their weather stations re-selected several times.

After the initial weather station identification by EarthInfo (and during the course of the necessary re-selections), the four SHRP Regional Coordination Office (RCO) contractors were asked to assist in an evaluation of the degree to which the five weather stations identified for each GPS test site in their region were believed to represent conditions at the site. Each RCO was provided with the list of GPS test sites and the corresponding weather stations identified by EarthInfo. In addition, guidelines were prepared to aid the RCO in this evaluation -- e.g., input from state climatologist, weather station-to-site distance, elevation difference, and terrain considerations, etc.

The degree to which the selections were reviewed varied significantly from region to region. This was due primarily to whether the review was done directly by the RCO or if the RCO relied on the state climatologists to perform the review. Where the state climatologists were relied upon, results were often delayed until long after the data collection had been completed. For these regions, relatively few weather stations were rejected as being not representative of the weather conditions at the GPS site.

In the Western region, however, an extensive in-house review was undertaken due to concerns regarding the rough terrain and large distances between weather stations and the GPS sites. All GPS sites and their selected weather stations were located on large scale topographical maps. All weather stations determined to be on opposite sides of a mountain ridge from the GPS site were deemed non-representative. Similarly, weather stations at significant elevation differences from the GPS site were also deemed non-representative.

All in all, the review of weather stations by the RCOs resulted in more than 200 being rejected (of a total of more than 3000 overall). Also, a few additional GPS test sites were added to the original list. As a consequence, a follow-up effort was undertaken by EarthInfo to identify new or alternate weather stations. The final list of GPS test sites and corresponding weather stations is contained in Appendix B. Tables 3 to 7 give the distribution of weather stations by distance and elevation difference to the site, by different categories of weather station. Table 8 shows the distribution of accepted weather stations per site. As shown, only 24 GPS sites are represented with fewer than three weather stations.

On completion of weather station selection, the focus of EarthInfo's efforts shifted to the retrieval of the climatic data for each selected weather station. The reader is referred to Table 1 for a list of the data elements extracted from the NCDC and CCC files. Processing of the raw data also yielded various monthly statistics and other "derived" data elements for inclusion in the climatic data base. These additional data elements and their derivation were discussed earlier in the report.

One significant difficulty experienced by EarthInfo was that NCDC's list of First Order weather stations is somewhat misleading. In the course of identifying the First Order

TABLE 3 - FIRST ORDER WEATHER STATION DISTANCE AND ELEVATION DIFFERENCE DISTRIBUTION

Elevation Difference (feet)	Distance (miles)							
	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50	50+	rejected	Grand total
0 - 100	66 (8.5%)	70 (9.0%)	45 (5.8%)	31 (4.0%)	29 (3.7%)	69 (8.9%)	0 (0.0%)	310 (39.9%)
100 - 200	8 (1.0%)	29 (3.7%)	27 (3.5%)	25 (3.2%)	13 (1.7%)	34 (4.4%)	0 (0.0%)	136 (17.5%)
200 - 300	5 (0.6%)	9 (1.2%)	7 (0.9%)	14 (1.8%)	11 (1.4%)	27 (3.5%)	0 (0.0%)	73 (9.4%)
300 - 400	5 (0.6%)	7 (0.9%)	5 (0.6%)	11 (1.4%)	3 (0.4%)	14 (1.8%)	0 (0.0%)	45 (5.8%)
400 - 500	3 (0.4%)	1 (0.1%)	2 (0.3%)	2 (0.3%)	5 (0.6%)	15 (1.9%)	0 (0.0%)	28 (3.6%)
500+	1 (0.1%)	4 (0.5%)	16 (2.1%)	10 (1.3%)	8 (1.0%)	41 (5.3%)	0 (0.0%)	80 (10.3%)
rejected	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	105 (13.5%)	105 (13.5%)
Grand total	88 (11.3%)	120 (15.4%)	102 (13.1%)	93 (12.0%)	69 (8.9%)	200 (25.7%)	105 (13.5%)	777 (100.0%)

TABLE 4 - ACTIVE COOPERATIVE WEATHER STATION DISTANCE AND ELEVATION DIFFERENCE DISTRIBUTION

Elevation Difference (feet)	Distance (miles)							
	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50	50+	rejected	Grand total
0 - 100	329 (42.3%)	121 (15.6%)	18 (2.3%)	0 (0.0%)	0 (0.0%)	1 (0.1%)	0 (0.0%)	469 (60.4%)
100 - 200	70 (9.0%)	59 (7.6%)	12 (1.5%)	2 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	143 (18.4%)
200 - 300	44 (5.7%)	17 (2.2%)	2 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	63 (8.1%)
300 - 400	17 (2.2%)	13 (1.7%)	2 (0.3%)	1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	33 (4.3%)
400 - 500	8 (1.0%)	7 (0.9%)	1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	16 (2.1%)
500+	24 (3.1%)	22 (2.8%)	4 (0.5%)	0 (0.0%)0	0 (0.0%)	0 (0.0%)	0 (0.0%)	50 (6.4%)
rejected	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (0.4%)	3 (0.4%)
Grand total	492 (63.3%)	239 (30.8%)	39 (5.0%)	3 (0.4%)	0 (0.0%)	1 (0.1%)	3 (0.4%)	777 (100.0%)

TABLE 5 - REGULAR (1) COOPERATIVE WEATHER STATION DISTANCE AND ELEVATION DIFFERENCE DISTRIBUTION

Elevation Difference (feet)	Distance (miles)							
	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50	50+	rejected	Grand total
0 - 100	80 (10.3%)	207 (26.6%)	71 (9.1%)	6 (0.8%)	0 (0.0%)	1 (0.1%)	0 (0.0%)	365 (47.0%)
100 - 200	34 (4.4%)	76 (9.8%)	43 (5.5%)	3 (0.4%)	1 (0.1%)	0 (0.0%)	0 (0.0%)	157 (20.2%)
200 - 300	19 (2.5%)	54 (7.0%)	17 (2.2%)	2 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	92 (11.8%)
300 - 400	7 (0.9%)	20 (2.6%)	13 (1.7%)	2 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	42 (5.4%)
400 - 500	6 (0.8%)	15 (1.9%)	5 (0.6%)	1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	27 (3.5%)
500+	9 (1.2%)	42 (5.4%)	19 (2.5%)	4 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	74 (9.5%)
rejected	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	20 (2.6%)	20 (2.6%)
Grand total	155 (20.0%)	414 (53.3%)	168 (21.6%)	18 (2.3%)	1 (0.1%)	1 (0.1%)	20 (2.6%)	777 (100.0%)

TABLE 6 - REGULAR (2) COOPERATIVE WEATHER STATION DISTANCE AND ELEVATION DIFFERENCE DISTRIBUTION

Elevation Difference (feet)	Distance (miles)							
	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50	50+	rejected	Grand total
0 - 100	17 (2.2%)	134 (17.3%)	153 (19.7%)	17 (2.2%)	1 (0.1%)	1 (0.1%)	0 (0.0%)	323 (41.6%)
100 - 200	8 (1.0%)	59 (7.6%)	77 (9.9%)	10 (1.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	154 (19.8%)
200 - 300	2 (0.3%)	29 (3.7%)	43 (5.5%)	3 (0.4%)	2 (0.3%)	1 (0.1%)	0 (0.0%)	80 (10.3%)
300 - 400	1 (0.1%)	18 (2.3%)	23 (3.0%)	4 (0.5%)	1 (0.1%)	0 (0.0%)	0 (0.0%)	47 (6.1%)
400 - 500	2 (0.3%)	9 (1.2%)	13 (1.7%)	5 (0.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	29 (3.7%)
500+	6 (0.8%)	47 (6.1%)	44 (5.7%)	8 (1.0%)	2 (0.3%)	0 (0.0%)	0 (0.0%)	107 (13.8%)
rejected	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	37 (4.8%)	37 (4.8%)
Grand total	36 (4.6%)	296 (38.1%)	353 (45.4%)	47 (6.1%)	6 (0.8%)	2 (0.3%)	37 (4.8%)	777 (100.0%)

TABLE 7 - REGULAR (3) COOPERATIVE WEATHER STATION DISTANCE AND ELEVATION DIFFERENCE DISTRIBUTION

Elevation Difference (feet)	Distance (miles)							
	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50	50+	rejected	Grand total
0 - 100	8 (1.0%)	82 (10.6%)	148 (19.1%)	55 (7.1%)	6 (0.8%)	1 (0.1%)	0 (0.0%)	300 (38.6%)
100 - 200	1 (0.1%)	25 (3.2%)	95 (12.2%)	24 (3.1%)	4 (0.5%)	0 (0.0%)	0 (0.0%)	149 (19.2%)
200 - 300	2 (0.3%)	21 (2.7%)	48 (6.2%)	20 (2.6%)	0 (0.0%)	1 (0.1%)	0 (0.0%)	92 (11.8%)
300 - 400	2 (0.3%)	12 (1.5%)	22 (2.8%)	13 (1.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	49 (6.3%)
400 - 500	1 (0.1%)	10 (1.3%)	17 (2.2%)	13 (1.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	41 (5.3%)
500+	1 (0.1%)	17 (2.2%)	44 (5.7%)	15 (1.9%)	3 (0.4%)	0 (0.0%)	0 (0.0%)	80 (10.3%)
rejected	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	66 (8.5%)	66 (8.5%)
Grand total	15 (1.9%)	167 (21.5%)	374 (48.1%)	140 (18.0%)	13 (1.7%)	2 (0.3%)	66 (8.5%)	777 (100.0%)

TABLE 8 - DISTRIBUTION OF WEATHER STATIONS PER SITE

No. of Accepted Weather Stations	No. of Sites
5	634
4	86
3	33
2	18
1	6

weather stations, EarthInfo selected one for each GPS site. After the review described above, they then began extracting the desired weather data from their database and building the required product of this effort. After building the lowest level of the database, EarthInfo discovered that some of the data was missing for the First Order weather stations. On further examination, the missing data was restricted to approximately 20% of the selected First Order weather stations. After fully investigating the cause of this deficiency, EarthInfo discovered that the NCDC list of First Order weather stations includes all weather stations that were EVER First Order at any point within their life. What this meant was that when they extracted the required First Order weather data, much of it was missing because the weather station was actually a Cooperative weather station during a portion (sometimes the majority) of its life. The remedy was to reselect all weather stations for the affected GPS sites. This was also a multi-step process, for the same reasons described for the initial selection. The discovery and resolution of this problem resulted in a delay of approximately 90 days in the data base development effort.

Concurrent with the above effort, various activities were undertaken to finalize the structure of the climatic data base. Following the recommendations provided in the preliminary plans, the data base was defined as being comprised of three levels: (1) raw climatic data (low level); daily data, statistical parameters, and derived data (middle level); and, monthly summary data (high level). A description of each level was provided earlier in the report. Next, the structure of each level and that of individual records within each level were finalized as were the formats for the various data elements. Finally, the computer code required to calculate the monthly statistics and other derived data was developed. The reader is referred to Appendix A for a detailed description of the final data base structure.

In all, 37 9-track tapes containing over 3 gigabytes of climatic data were generated. The low level database contains 17 tapes with a total of 1.5 gigabytes of data. The middle level database also contains 17 tapes, with a total of 1.4 gigabytes of data. The top level of the database contains 3 tapes with a total of .22 gigabytes of data. To ensure the quality of the data contained in these tapes, a series of checks were performed on them by SHRP's Technical Assistance Contractor. These quality assurance checks and their outcome are discussed in the next section. After the successful completion of the quality checks, all three

levels of the climatic data base were turned over to the Transportation Research Board, where the National Pavement Performance Data Base (NPPDB) now resides. Both the low and middle level data bases are being stored off-line, while the top level data base is stored in the NPPDB. Only data for the closest and "virtual" weather stations are currently in the NPPDB for each GPS test site due to storage limitations. An example of a portion of the top level data is contained in Table 9.

Data Quality Assurance

To ensure the reliability of the data stored in the climatic data base, only data flagged as valid from NCDC and CCC were used in the development process. Additional quality control procedures included verification that all ordered and available data had been obtained and a thorough checking and review of the software used in the development of the data base. Furthermore, because there is a substantial amount of data in each level of the database, the following checks were performed separately on each level:

- **Raw Climatic Data**: Check that all tapes are readable and compare the weather stations to the list of selected stations; the entire list of selected weather stations should have been observed in the tapes.

- **Daily Data, Statistical Parameters, and Derived Data**: Check that all tapes are readable and compare the weather stations and parameters to the list of selected stations; the entire list of selected weather stations should have been observed on the tapes. Also, check that the expected range of years of data has been obtained by comparing to the weather station selection list. In addition, read the link records and compare them to the separately obtained lists of GPS sites and their selected weather stations; all GPS sites and their selected weather stations should be represented.

- **Monthly Summary Data**: For monthly statistical data, check that all tapes are readable and compare the weather stations and parameters to the list of selected stations; the entire list of selected weather stations should have been observed on the tapes. Perform a check on absolute values. Also, check that

TABLE 9 - SAMPLE TOP LEVEL VIRTUAL DATA FOR GPS SITE 480001

Max Temperature (degrees F)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Average	68.06	69.57	70.00	79.06	87.90	97.09	93.35	97.61	91.40	81.87	73.96
Std Dev	8.326	7.946	8.858	6.601	5.889	2.604	5.890	3.231	5.499	7.864	7.019
Skewness	-0.617	-0.424	-1.390	-0.390	-0.541	-0.196	-0.926	0.372	-0.436	-0.036	-0.728
Kurtosis	2.640	2.062	4.291	3.025	2.089	2.198	3.420	2.615	3.330	1.899	2.332
Frz/Thw	1	0	0	0	0	0	0	0	0	0	0
Miss Cnt	0	0	0	0	0	0	0	0	0	0	0
#>90 0	0	0	1	15	30	24	31	20	6	0	0

Min Temperature (degrees F)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Average	45.93	47.28	52.12	59.06	67.67	73.90	72.29	73.45	69.83	56.64	52.09
Std Dev	9.121	5.912	9.545	7.277	6.905	2.233	2.312	2.292	4.077	10.920	10.020
Skewness	0.569	0.185	0.089	-0.277	-0.448	-0.758	-1.047	-0.654	-1.202	0.353	0.166
Kurtosis	2.678	2.805	1.688	2.080	1.942	4.272	3.448	2.484	3.852	1.581	1.742
Frz Index	0	0	0	0	0	0	0	0	0	0	0
Miss Cnt	0	0	0	0	0	0	0	0	0	0	0
#<32 0	0	0	0	0	0	0	0	0	0	0	9

Precipitation (inches/100)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Average	4.26	12.32	8.55	10.76	11.80	4.47	10.38	2.03	6.57	10.38	12.23
Std Dev	8.644	24.310	21.110	34.510	38.120	23.520	24.290	4.672	11.700	35.840	42.530
Skewness	2.166	2.067	4.048	4.314	4.246	4.936	3.574	2.773	2.125	3.906	4.422
Kurtosis	6.393	6.080	20.160	21.700	21.340	26.160	16.740	10.340	6.936	18.270	22.500
Total 132	345	265	323	366	134	322	63	197	322	367	82
#>0.5 0	3	1	1	3	1	1	0	0	2	1	0
#>0.01	12	11	15	11	11	2	13	8	13	5	7

Snowfall (inches/10)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Average	0	0	0	0	0	0	0	0	0	0	0
Std Dev	0	0	0	0	0	0	0	0	0	0	0
Skewness	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
Kurtosis	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
Total 0	0	0	0	0	0	0	0	0	0	0	0

the expected range of years of data has been obtained by comparing to the weather station selection list. For GPS site location data, compare the recorded data to the separately obtained list of GPS sites; all GPS sites should be represented. For weather station site location data, compare the recorded data to the separately obtained list of selected weather stations; all selected weather stations should be represented. For GPS to weather station link data, compare the recorded data to the separately obtained list of GPS site and weather station combinations; all combinations of GPS site and selected weather station should be represented.

Readability checks mentioned above included checking the data areas of the tapes for non-numeric characters. Any non-numeric data found there meant that the either the tape was corrupted or that the hardware had failed. Many of the checks described above were performed in a random fashion, with data observed throughout the entire data set. Where appropriate, "virtual" weather station data was compared to data from the nearest available weather station when they were in close proximity, in order to evaluate whether or not the calculated data was reasonably close to the measured data. Where GPS sites have both U.S. and Canadian weather stations selected, samples of data were checked to determine if units conversions were performed appropriately.

Finally, for a small group of GPS sites and their selected weather stations, the entire set of data was entered on the data collection forms in order to verify that the forms and the computerized data collection process matched.

While this process was not intended to be an iterative procedure, the initial attempts at producing the tapes yielded numerous minor errors. Several iterations become necessary, and a substantial amount of effort was expended by all parties in resolving these problems prior to attempting to load this data into NIMS.

IMS Quality Assurance

At the time of this writing, the specific quality assurance checks for use on the IMS are still under development. Like other portions of the IMS, these checks generally take

on several different forms. Some data elements are checked simply to ensure their presence, from the point of view of completeness of the database. Other data elements are checked against a range of values for that type of parameter in order to flag those that are out of range of normal values. Still other data elements are checked against values contained in other data tables in order to maintain internal consistency. The climatic data base will not be released to the public until it has passed all established quality assurance checks.

FUTURE ACTIVITIES

Although significant effort has been spent on the development of SHRP's LTPP climatic database, the work is far from complete. For one, the climatic data currently available in the database ends somewhat before the date of this report. Because the majority of LTPP sections will be monitored for many years to come, future updates of the climatic data base will be required on a periodic basis. Also, despite the data base development effort to date, there are gaps in the data for a number of weather stations and some weather stations may not be representative of on-site weather conditions. To address both of these concerns, the feasibility of obtaining ground truth data through on-site weather stations needs to be investigated. Finally, it is important that an effort similar to the one discussed in this report be undertaken to expand the LTPP climatic data base to include SPS test sites. These three issues are further discussed below.

Data Base Update Activities

The majority of SHRP sections, both GPS and SPS, will be monitored for many years to come. However, the climatic data currently stored in the LTPP data base only includes information through February 1991 for U.S. sites and December 1989 for Canadian sites. Thus, future updates of the climatic data base will be required on a periodic basis. Current recommended plans call for these updates to be performed every two years for each active GPS test site. As part of these updates, weather stations that have become inactive would be replaced by other weather stations of the same order (First Order or Cooperative) or higher. At the same time, a check would be made to verify whether any new stations have been established closer to the site than stations already included in the data base. In case

such stations are identified, these stations will be added to the data base and new data for other existing weather stations will not be collected. Historic data will be maintained in the data base, even after a station has been dropped.

It is also possible that as the analysis of the LTPP data progresses, it may become necessary to collect and store additional data elements in the climatic data base. Likewise, additional activities may be necessitated in the future, depending on the result of the climatic data base verification study discussed below.

Collection of Ground Truth Data

Despite the effort that went into the development of the LTPP climatic data base, there are gaps in the data for a number of the weather stations selected. Furthermore, data obtained from the selected weather stations may not be representative of the actual, on-site weather conditions for a number of sites. To overcome these shortcomings, it is planned to obtain ground truth weather data to achieve the following:

- Evaluate the degree to which estimates derived from NCDC and CCC weather data are representative of actual, on-site weather conditions
- Provide weather data for those sites where no representative weather stations have been identified, or to fill in gaps in the available data.

In order to analyze the uniformity in the weather pattern in the area of the test sites, it is envisioned that the weather information from each of the selected weather stations will be compared statistically with "virtual" data derived from the others. Depending on the results of this analysis, the correlation between the weather stations and the location of the test site can be estimated. This analysis will look at only temperature and moisture, represented by mean temperature and total precipitation. It is further anticipated that the above analysis will be supplemented (and validated) by weather data obtained from weather stations installed at or near a limited number of GPS test sites.

On completion of the degree of representativeness analysis, it is quite likely that on-site or ground truth weather stations will be required at a number of GPS test sites. As an

absolute minimum, these weather stations would collect temperature, precipitation and snowfall data. Other data elements such as wind speed and relative humidity would also be considered, but their inclusion would depend on a number of factors, including financial constraints.

Expansion to SPS Experiments

The availability of climatic data is as critical for SPS experiments as for the GPS experiments. The data elements given in Table 1 are also considered essential for each SPS site. For SPS-3, SPS-4, SPS-5, SPS-6, and SPS-7, a procedure similar to that described for the GPS sites will be followed to obtain the climatic data. These data will be collected at a later date, since the SPS experiments are very young. For the SPS-1, SPS-2, and SPS-8 experiments involving new construction, a more rigorous data collection effort is to be followed.

The participation requirements for SPS-1, SPS-2, and SPS-8 test sites stipulate the installation and operation of a weather station at the sites if a weather station is not located in the "proximity" of the test site. The proximity is based on representativeness of the weather station data to the SPS test site. For example, in the midwestern states, weather stations located 5 to 8 miles from the test site may provide representative weather data, while in the mountain states, stations located a few miles from the test site may not provide representative data. For each SPS-1, SPS-2 and SPS-8 site, a state climatologist will be requested to provide input regarding adjacent weather stations and the extent of their representativeness of the climate conditions at the test site.

Tentatively, the following guidelines have been established to access the representativeness of the weather stations.

1. Mean daily temperature (monthly) should be within 10% of that at the weather station.
2. Daily precipitation (monthly) and daily snowfall (monthly) at the test site should be within 20% of that at the weather station.

If the weather station data does not meet the above requirements, or if other reasons exist for not considering adjacent weather stations (poor quality of data, potential closure, etc.) then a cooperative type weather station will need to be established for these test sites. It is anticipated that since many of the test sites will be in remote locations, use will be made of commercially available weather stations capable of measuring the necessary climatic data. The use of these weather stations will also permit collection of solar radiation data at a few test sites.

SUMMARY AND CONCLUSIONS

This report presents details on the development of the climatic database for the LTPP test sections. For the GPS test sites which have been in service, generally for a large number of years, past climatic data had to be collected from in-service weather stations in both the U.S. and Canada. Thus the database provides the best available estimate for the climatic data at each GPS test section. Efforts are currently underway to determine the reliability of the database and to identify the need for ground-truth weather stations at a small number of test sections.

The database is one of the most comprehensive climatic databases developed, and contains climatic data applicable to each GPS test section from the date of construction of that section. The last year of record is 1990. The database will be regularly updated as the LTPP program continues for another 15 years. A similar database will be developed for the SPS test sites also. For SPS-1, SPS-2, and SPS-8 experiments involving new construction, a more rigorous data collection effort to ensure that climatic data collected for these sites is truly representative is planned.

APPENDIX A

EARTHINFO DOCUMENTATION

CONTENTS

PHASE I: IDENTIFY WEATHER STATIONS

For each of the GPS sites in this study, five weather stations were selected based on the logic outlined below. Weather stations were selected from EarthInfo's CD database of NCDC 3200 data published in 1990. The list of stations was modified and approved by PCS/LAW during Phase II.

No Canadian stations are identified as "first order" by the Canadian Climate Center. For this project, any Canadian station that measured, at any time, all the first order parameters listed in the RFP was marked as a first order station.

WEATHER STATION SELECTION LOGIC

SELECTION

1. Build Station List ordered by Distance from current GPS Site.
2. Find closest FIRST ORDER Station.
3. Check active and coverage condition (see below)
   - if check fails: report on log and find next closest, continue at 3
   - if check succeeds: mark station and report on log, continue at 4
4. Find closest ACTIVE and COOPERATIVE Station.
5. Check coverage condition and whether used above (marked)
   - if check fails: report on log and find next closest, continue at 5
   - if check succeeds: mark station and report on log, continue at 6.
6. Find closest Stations.
7. Check coverage condition and whether used above (marked)
   - if check fails: report on log and find next closest
   - if check succeeds: mark station and report on log, find next closest, continue at 7 until 3 stations found.
8. Check record length condition (below) for all marked Stations
   - if none found: report on log and find next closest match, continue at 8
   - if check succeeds: mark station and report on log, continue at 9.
9. Selection process completed for current GPS Site.

COVERAGE CONDITION

1. if Construction Year (CY) is after 84, set cover range to 1985-1989
2. if Construction Year (CY) is before 85, cover range is to CY-1989
3. Check if each of the following PARAMETER is measured on more than 50% of all possible days in the cover range:
   - Minimum daily Temperature (TMIN)
   - Maximum daily Temperature (TMAX)

- Daily Precipitation (PRCP)
- Daily Snowfall (SNOW) - the SNOW cover check will not be performed if the GPS has the "NF" (NO FREEZE) flag.

RECORD LENGTH CONDITION

1. if Construction Year is after 1984,
   record length is 5 years (1985-1989).
2. if Construction Year is 1984,
   record length is 6 years (1984-1989).
3. if Construction Year is 1983,
   record length is 7 years (1983-1989).
4. if Construction Year is 1982,
   record length is 8 years (1982-1989).
5. if Construction Year is 1981,
   record length is 9 years (1981-1989).
6. if Construction Year is before 1981,
   record length is 10 years (1980-1989).

DISTANCE FORMULA

Point1 described by Latitude1 (lat1) (in degrees)
and Longitude1 (lng1) (in degrees).
Point2 described by Latitude2 (lat2) (in degrees)
and Longitude2 (lng2) (in degrees).

Vertical Distance
dis_v =
abs(lat2 - lat1)*24,859.82 miles/360 degrees

Horizontal Distance
dis_h =
cos((lat2+lat1)/2)*abs(lng2-lng1)*24,901.55 miles/360 degrees

Real Distance
dis =
sqrt(dis_v*dis_v + dis_h*dis_h)

Error
The remaining error is the difference between the arc and the straight line connecting both points:

error (in percent) = angle(degrees)*PI/(360*sin(angle/2))

Error for 5 degrees is only 0.03 percent, for
10 degrees 0.13 percent.

PHASE III: BUILDING

All weather data for this project are from EarthInfo databases of National Climatic Data Center (NCDC) or the Canadian Climate Centre (CCC) data obtained in 1991. Therefore, we include a discussion of how the EarthInfo databases were built.

EARTHINFO DATABASES

1. Convert NCDC and CCC ASCII Records to Binary

   Data from NCDC and CCC were obtained on 9-track tapes. Each tape was read twice and the resulting files compared to insure that the reading was accurate. An index of stations, parameters, years, months, and tape volume number was compiled as each tape was read. This permits easy access to the original NCDC data for comparisons. A count of all characters found in the tape-file was also performed to check for values outside the proper range. In addition, the data files were inspected manually to check for standard NCDC and CCC data patterns.

   First order and CCC records are fixed length, but cooperative records are variable length. There is one month of data per record. To build the weather databases, we created fixed length binary records of each monthly input record. These were sorted by station, parameter, units, year, and month.

2. Create the Database

   Yearly records were created from the sorted monthly records and stored in an indexed database. The volume of data dictated that separate databases be built for first order, CCC, and cooperative stations.

EXTRACT SHRP/LTPP DATA

A list of GPS sites and their associated weather stations was determined in Phase I and II of this project. This list was used to select appropriate weather data from the EarthInfo databases. The parameter table at the end of this document describes which parameters were selected for which type of weather station. The output of this selection process was used to build the three SHRP/LTTP database levels.

1. LOW LEVEL

   All available data for each weather station, for each parameter, was converted to ASCII and exported to the low level database. The parameters at this level are determined by the type of weather station; see the parameter code table. Record format and fields are described in detail in the low level database definition.

2. MIDDLE LEVEL

Two record types were created at this level: weather station data, and a link record to connect each GPS site to its weather stations.

Weather station data contains yearly records: daily data with monthly and yearly statistical and derived values. The date range of this record type was determined by the age of the GPS site linked to the weather station.

The link record contains the GPS site ID and the ID numbers of each of the linked weather stations.

Each record format and its fields are described in detail in the middle level database definition; following is a general description.

Weather station data record

Header

The key field in the header of each record contains the weather station type, (FO = first order, CP = cooperative, CC = Canadian, VV = virtual) and an 8 digit ID number of the weather station. FO and CP types only apply to NCDC stations; the Canadian Climate Centre does not designate its stations as first order or cooperative. Other fields in the header are the parameter code, year of measurement, parameter units, and yearly coverage. Units of measurement depend on the country of the linked GPS site; English units are used for weather stations linked to GPS sites in the USA, SI units are used for weather stations linked to GPS sites in Canada. Following the header are 12 groups of fields, one for each month of the year.

Daily, statistical, and derived values by month

The first field in the group is a data block that contains the daily values and flags from NCDC or CCC. This is followed by monthly statistical values: mean, standard deviation, skewness, and kurtosis.

The last three fields in the group are derived values for the month. The values stored in these fields depend on the parameter. For example, if the parameter is precipitation, one field will have total monthly precipitation, one will have the number of days with high intensity precipitation, and one will have the number of wet days. If the parameter is maximum temperature, one field will have the number of days over 90 F, the others will be empty. Most parameters will not have values in these fields; details of these fields are in the middle level database definition.

Yearly fields
At the end of the record are the yearly summary fields where appropriate: freeze-thaw cycles or freezing index and their missing-data counts.

Link Record

The link record contains the ID of the GPS site, the ID numbers of the five weather stations linked to it, and the ID of the virtual weather station. The virtual weather station ID is the GPS ID with a "VV00" prefix.

3. TOP LEVEL

There are four records at this level: weather data, GPS site, weather station, and a link record.

Weather Data
There is one year of data in each record. It contains monthly & yearly statistical and derived data. The fields are the same as the middle level without the daily values.

GPS Site
The key field is the SHRP/LTPP project ID. Other fields include construction date, latitude, longitude, and elevation.

Weather Station
The key field is the weather station ID. Other fields are name, latitude, longitude, elevation, and begin date.

Link
The link record establishes the link between the GPS site and its weather stations. It also contains the "difference" data: distance, elevation difference, bearing, temperature coverage and moisture coverage.

LOW LEVEL DATABASE DEFINITION FILE

SHRP/LTPP LOW LEVEL DATABASE

There is one record at this level: weather station data for the life of the weather station.

Fields:

l_sta is the group (FO, CP, or CC) followed by an 8-digit weather station ID where FO = First Order, CP = Cooperative, CC = CCC.

l_par is a 2-digit code of the weather parameter.

l_year is the year of measurements.

l_unit is the units of measurements.

l_data is 372 days of 1 sign, 5 digits, and 2 flags. No decimal point is included in the field, its position is implied by the units of measurement.

```
TITLE: LOW                                          # Low level database

Total record size = 2994

FIELD DESCRIPTIONS

l_sta    TYPE=STR     LEN=10                        # Weather Station ID
l_par    TYPE=STR     LEN=2                         # Parameter code
l_year   TYPE=STR     LEN=4                         # Year
l_unit   TYPE=STR     LEN=2                         # Units
l_data   TYPE=STR     LEN=2976                      # Daily values: 8x372
```

MID LEVEL DATABASE DEFINITION FILE

SHRP/LTPP MID LEVEL DATABASE

There are two records at this level: Weather station data (M) and a GPS to weather station link record (GW).

M record:

This record consists of NCDC and CCC data with statistics and derived values.

Header fields:

m_sta Group (FO, CP, CC or VV) followed by 8 digit weather station ID. FO = First Order, CP = Cooperative, CC = CCC, VV = Virtual. The virtual weather station ID is "VV00" plus the number of the GPS site to which it is linked.

m_par Parameter Number: 2-digit code

m_year Year of measurement.

m_unit Units of measurement. Same units as the linked GPS site.

m_covr Yearly coverage: number of days with measurements.

NOTE: "Coverage" refers to daily values with a quality flag of 1 or 0. 'R' flags (prcp not reported, zero assumed) and 'D' flags (Derived data) are not counted as coverage days.

Data:

Following the header fields are 12 groups of monthly data and statistics. Field m_xx_yyy is field yyy for month xx, where xx is 01 for January, etc.

Field m_xx_dat is 31 days of data in NCDC format (1 sign, 5 digits, and 2 flags). The decimal point is not recorded; it position is determined by the units of measurement.

Statistics:

m_xx_avg	Monthly	Mean
m_xx_std	"	Std Deviation
m_xx_skw	"	Skewness
m_xx_kur	"	Kurtosis

Derived monthly values:

The three monthly derived fields have different meanings depending on the parameter to which they are attached. The table following shows which values are stored with which parameter:

m_xx_tot Monthly Total
m_xx_max " Maximum
m_xx_nbr " Count

Param.	Code	Field and Meaning m_xx_tot	m_xx_max	m_xx_nbr
TMAX	01	Freeze-Thaw count	Missing data cnt	# days > 90°F
TMIN	02	Freeze Index	Missing data cnt	# days < 32°F
MNTP	03	Mean tmp range	Missing data cnt	
SNOW	11	Total snow		
PRCP	12	Total prcp	# High intensity	# wet days

Note that "Missing data cnt" refers to the previous field, not to the daily values of the previous month. Ie: the missing data cnt for TMAX refers to the Freeze-Thaw count for that month. Missing data would be counted if either the TMAX or TMIN value for a particular day was missing.

Derived yearly values:

Values in the fields "m_fr" and "m_miss" depend on the parameter.
TMAX:
m_fr Yearly Freeze-Thaw count
m_miss Yearly missing data count for Freeze Thaw.
TMIN:
m_fr Yearly Freezing Index
m_miss Yearly missing data count for Freezing Index

GW record:

This record links each GPS site to up to 5 weather stations and one virtual station. It contains the ID numbers of the GPS site, it's five weather stations, and the virtual station. If a weather station is missing, its ID field is filled with zeros.

FIELD DESCRIPTIONS

RECORD1 FIELD DESCRIPTIONS
Total record size = 3513

```
RECORD: M                                   # Middle Level database
m_sta    TYPE=STR/IDX LEN=10                # Weather Station ID
m_par    TYPE=STR LEN=2                     # Parameter Number
m_year   TYPE=STR LEN=4                     # Year
```

```
m_unit   TYPE=STR LEN=2                  # Units
m_covr   TYPE=STR LEN=3                  # Yearly coverage
Month 01
m_01_dat TYPE=STR LEN=248                # Daily Values 8 x 31
m_01_avg TYPE=STR LEN=6                  # Monthly Mean
m_01_std TYPE=STR LEN=6                  #    "    Std Deviation
m_01_skw TYPE=STR LEN=6                  #    "    Skewness
m_01_kur TYPE=STR LEN=6                  #    "    Kurtosis
m_01_tot TYPE=STR LEN=6                  #    "    Total
m_01_max TYPE=STR LEN=6                  #    "    Maximum
m_01_nbr TYPE=STR LEN=6                  #    "    Count
Month 02
m_02_dat TYPE=STR LEN=248                # Daily Values 8 x 31
m_02_avg TYPE=STR LEN=6                  # Monthly Mean
m_02_std TYPE=STR LEN=6                  #    "    Std Deviation
m_02_skw TYPE=STR LEN=6                  #    "    Skewness
m_02_kur TYPE=STR LEN=6                  #    "    Kurtosis
m_02_tot TYPE=STR LEN=6                  #    "    Total
m_02_max TYPE=STR LEN=6                  #    "    Maximum
m_02_nbr TYPE=STR LEN=6                  #    "    Count
Month 03
m_03_dat TYPE=STR LEN=248                # Daily Values 8 x 31
m_03_avg TYPE=STR LEN=6                  # Monthly Mean
m_03_std TYPE=STR LEN=6                  #    "    Std Deviation
m_03_skw TYPE=STR LEN=6                  #    "    Skewness
m_03_kur TYPE=STR LEN=6                  #    "    Kurtosis
m_03_tot TYPE=STR LEN=6                  #    "    Total
m_03_max TYPE=STR LEN=6                  #    "    Maximum
m_03_nbr TYPE=STR LEN=6                  #    "    Count
Month 04
m_04_dat TYPE=STR LEN=248                # Daily Values 8 x 31
m_04_avg TYPE=STR LEN=6                  # Monthly Mean
m_04_std TYPE=STR LEN=6                  #    "    Std Deviation
m_04_skw TYPE=STR LEN=6                  #    "    Skewness
m_04_kur TYPE=STR LEN=6                  #    "    Kurtosis
m_04_tot TYPE=STR LEN=6                  #    "    Total
m_04_max TYPE=STR LEN=6                  #    "    Maximum
m_04_nbr TYPE=STR LEN=6                  #    "    Count
Month 05
m_05_dat TYPE=STR LEN=248                # Daily Values 8 x 31
m_05_avg TYPE=STR LEN=6                  # Monthly Mean
m_05_std TYPE=STR LEN=6                  #    "    Std Deviation
m_05_skw TYPE=STR LEN=6                  #    "    Skewness
m_05_kur TYPE=STR LEN=6                  #    "    Kurtosis
m_05_tot TYPE=STR LEN=6                  #    "    Total
m_05_max TYPE=STR LEN=6                  #    "    Maximum
m_05_nbr TYPE=STR LEN=6                  #    "    Count
Month 06
m_06_dat TYPE=STR LEN=248                # Daily Values 8 x 31
m_06_avg TYPE=STR LEN=6                  # Monthly Mean
m_06_std TYPE=STR LEN=6                  #    "    Std Deviation
m_06_skw TYPE=STR LEN=6                  #    "    Skewness
```

```
m_06_kur TYPE=STR LEN=6                    #     "    Kurtosis
m_06_tot TYPE=STR LEN=6                    #     "    Total
m_06_max TYPE=STR LEN=6                    #     "    Maximum
m_06_nbr TYPE=STR LEN=6                    #     "    Count
Month 07
m_07_dat TYPE=STR LEN=248                  # Daily Values 8 x 31
m_07_avg TYPE=STR LEN=6                    # Monthly Mean
m_07_std TYPE=STR LEN=6                    #     "    Std Deviation
m_07_skw TYPE=STR LEN=6                    #     "    Skewness
m_07_kur TYPE=STR LEN=6                    #     "    Kurtosis
m_07_tot TYPE=STR LEN=6                    #     "    Total
m_07_max TYPE=STR LEN=6                    #     "    Maximum
m_07_nbr TYPE=STR LEN=6                    #     "    Count
Month 08
m_08_dat TYPE=STR LEN=248                  # Daily Values 8 x 31
m_08_avg TYPE=STR LEN=6                    # Monthly Mean
m_08_std TYPE=STR LEN=6                    #     "    Std Deviation
m_08_skw TYPE=STR LEN=6                    #     "    Skewness
m_08_kur TYPE=STR LEN=6                    #     "    Kurtosis
m_08_tot TYPE=STR LEN=6                    #     "    Total
m_08_max TYPE=STR LEN=6                    #     "    Maximum
m_08_nbr TYPE=STR LEN=6                    #     "    Count
Month 09
m_09_dat TYPE=STR LEN=248                  # Daily Values 8 x 31
m_09_avg TYPE=STR LEN=6                    # Monthly Mean
m_09_std TYPE=STR LEN=6                    #     "    Std Deviation
m_09_skw TYPE=STR LEN=6                    #     "    Skewness
m_09_kur TYPE=STR LEN=6                    #     "    Kurtosis
m_09_tot TYPE=STR LEN=6                    #     "    Total
m_09_max TYPE=STR LEN=6                    #     "    Maximum
m_09_nbr TYPE=STR LEN=6                    #     "    Count
Month 10
m_10_dat TYPE=STR LEN=248                  # Daily Values 8 x 31
m_10_avg TYPE=STR LEN=6                    # Monthly Mean
m_10_std TYPE=STR LEN=6                    #     "    Std Deviation
m_10_skw TYPE=STR LEN=6                    #     "    Skewness
m_10_kur TYPE=STR LEN=6                    #     "    Kurtosis
m_10_tot TYPE=STR LEN=6                    #     "    Total
m_10_max TYPE=STR LEN=6                    #     "    Maximum
m_10_nbr TYPE=STR LEN=6                    #     "    Count
Month 11
m_11_dat TYPE=STR LEN=248                  # Daily Values 8 x 31
m_11_avg TYPE=STR LEN=6                    # Monthly Mean
m_11_std TYPE=STR LEN=6                    #     "    Std Deviation
m_11_skw TYPE=STR LEN=6                    #     "    Skewness
m_11_kur TYPE=STR LEN=6                    #     "    Kurtosis
m_11_tot TYPE=STR LEN=6                    #     "    Total
m_11_max TYPE=STR LEN=6                    #     "    Maximum
m_11_nbr TYPE=STR LEN=6                    #     "    Count
Month 12
m_12_dat TYPE=STR LEN=248                  # Daily Values 8 x 31
m_12_avg TYPE=STR LEN=6                    # Monthly Mean
```

```
m_12_std TYPE=STR LEN=6                    #    "    Std Deviation
m_12_skw TYPE=STR LEN=6                    #    "    Skewness
m_12_kur TYPE=STR LEN=6                    #    "    Kurtosis
m_12_tot TYPE=STR LEN=6                    #    "    Total
m_12_max TYPE=STR LEN=6                    #    "    Maximum
m_12_nbr TYPE=STR LEN=6                    #    "    Count
Yearly Summary Values
m_fr     TYPE=STR LEN=6                    # Frz-Thaw / Frz-index count
m_miss   TYPE=STR LEN=6                    # Missing data count


RECORD2  FIELD DESCRIPTIONS
Total record size = 66

RECORD: GW                                 # Gps to Weather link
m_gps   TYPE=STR/IDX LEN=6                 # GPS Site ID
m_sta1  TYPE=STR     LEN=10                # Weather Station 1 ID
m_sta2  TYPE=STR     LEN=10                # Weather Station 2 ID
m_sta3  TYPE=STR     LEN=10                # Weather Station 3 ID
m_sta4  TYPE=STR     LEN=10                # Weather Station 4 ID
m_sta5  TYPE=STR     LEN=10                # Weather Station 5 ID
m_sta6  TYPE=STR     LEN=10                # Virtual WS ID
```

TOP LEVEL DATABASE DEFINITION FILE

SHRP/LTPP TOP LEVEL DATABASE

There are four records at this level: weather data, GPS site, weather station, and a link record.

The weather data record (T) contains monthly and yearly summary data. There is one year of data in each record. The fields are the same as in the middle level except that no daily values are included.

The records for GPS sites (G) and weather stations (W) hold data for each location such as lat/long, elevation, begin date, etc.

The link record (GW) establishes the link between the GPS site and one of its weather stations. It also contains the "difference" data: distance between GPS site and weather station, elevation difference, bearing, temperature coverage, and moisture coverage.

TITLE: TOP

RECORD1 FIELD DESCRIPTIONS
Total record size = 537

```
RECORD: T                          # Top Level Database
t_sta   TYPE=STR LEN=10            # Weather Station ID
t_par   TYPE=STR LEN=2             # Parameter Number
t_year  TYPE=STR LEN=4             # Year
t_unit  TYPE=STR LEN=2             # Units
t_covr  TYPE=STR LEN=3             # Yearly Coverage
Month 01
t_01_avg TYPE=STR LEN=6            # Monthly Average
t_01_std TYPE=STR LEN=6            #    "    Std Deviation
t_01_skw TYPE=STR LEN=6            #    "    Skewness
t_01_kur TYPE=STR LEN=6            #    "    Kurtosis
t_01_tot TYPE=STR LEN=6            #    "    Total
t_01_max TYPE=STR LEN=6            #    "    Maximum
t_01_nbr TYPE=STR LEN=6            #    "    Count
Month 02
t_02_avg TYPE=STR LEN=6            # Monthly Average
t_02_std TYPE=STR LEN=6            #    "    Std Deviation
t_02_skw TYPE=STR LEN=6            #    "    Skewness
t_02_kur TYPE=STR LEN=6            #    "    Kurtosis
t_02_tot TYPE=STR LEN=6            #    "    Total
t_02_max TYPE=STR LEN=6            #    "    Maximum
t_02_nbr TYPE=STR LEN=6            #    "    Count
Month 03
t_03_avg TYPE=STR LEN=6            # Monthly Average
t_03_std TYPE=STR LEN=6            #    "    Std Deviation
t_03_skw TYPE=STR LEN=6            #    "    Skewness
```

```
t_03_kur TYPE=STR LEN=6          #    "    Kurtosis
t_03_tot TYPE=STR LEN=6          #    "    Total
t_03_max TYPE=STR LEN=6          #    "    Maximum
t_03_nbr TYPE=STR LEN=6          #    "    Count
Month 04
t_04_avg TYPE=STR LEN=6          # Monthly Average
t_04_std TYPE=STR LEN=6          #    "    Std Deviation
t_04_skw TYPE=STR LEN=6          #    "    Skewness
t_04_kur TYPE=STR LEN=6          #    "    Kurtosis
t_04_tot TYPE=STR LEN=6          #    "    Total
t_04_max TYPE=STR LEN=6          #    "    Maximum
t_04_nbr TYPE=STR LEN=6          #    "    Count
Month 05
t_05_avg TYPE=STR LEN=6          # Monthly Average
t_05_std TYPE=STR LEN=6          #    "    Std Deviation
t_05_skw TYPE=STR LEN=6          #    "    Skewness
t_05_kur TYPE=STR LEN=6          #    "    Kurtosis
t_05_tot TYPE=STR LEN=6          #    "    Total
t_05_max TYPE=STR LEN=6          #    "    Maximum
t_05_nbr TYPE=STR LEN=6          #    "    Count
Month 06
t_06_avg TYPE=STR LEN=6          # Monthly Average
t_06_std TYPE=STR LEN=6          #    "    Std Deviation
t_06_skw TYPE=STR LEN=6          #    "    Skewness
t_06_kur TYPE=STR LEN=6          #    "    Kurtosis
t_06_tot TYPE=STR LEN=6          #    "    Total
t_06_max TYPE=STR LEN=6          #    "    Maximum
t_06_nbr TYPE=STR LEN=6          #    "    Count
Month 07
t_07_avg TYPE=STR LEN=6          # Monthly Average
t_07_std TYPE=STR LEN=6          #    "    Std Deviation
t_07_skw TYPE=STR LEN=6          #    "    Skewness
t_07_kur TYPE=STR LEN=6          #    "    Kurtosis
t_07_tot TYPE=STR LEN=6          #    "    Total
t_07_max TYPE=STR LEN=6          #    "    Maximum
t_07_nbr TYPE=STR LEN=6          #    "    Count
Month 08
t_08_avg TYPE=STR LEN=6          # Monthly Average
t_08_std TYPE=STR LEN=6          #    "    Std Deviation
t_08_skw TYPE=STR LEN=6          #    "    Skewness
t_08_kur TYPE=STR LEN=6          #    "    Kurtosis
t_08_tot TYPE=STR LEN=6          #    "    Total
t_08_max TYPE=STR LEN=6          #    "    Maximum
t_08_nbr TYPE=STR LEN=6          #    "    Count
Month 09
t_09_avg TYPE=STR LEN=6          # Monthly Average
t_09_std TYPE=STR LEN=6          #    "    Std Deviation
t_09_skw TYPE=STR LEN=6          #    "    Skewness
t_09_kur TYPE=STR LEN=6          #    "    Kurtosis
t_09_tot TYPE=STR LEN=6          #    "    Total
t_09_max TYPE=STR LEN=6          #    "    Maximum
t_09_nbr TYPE=STR LEN=6          #    "    Count
```

```
Month 10
t_10_avg TYPE=STR LEN=6          # Monthly Average
t_10_std TYPE=STR LEN=6          #    "    Std Deviation
t_10_skw TYPE=STR LEN=6          #    "    Skewness
t_10_kur TYPE=STR LEN=6          #    "    Kurtosis
t_10_tot TYPE=STR LEN=6          #    "    Total
t_10_max TYPE=STR LEN=6          #    "    Maximum
t_10_nbr TYPE=STR LEN=6          #    "    Count
Month 11
t_11_avg TYPE=STR LEN=6          # Monthly Average
t_11_std TYPE=STR LEN=6          #    "    Std Deviation
t_11_skw TYPE=STR LEN=6          #    "    Skewness
t_11_kur TYPE=STR LEN=6          #    "    Kurtosis
t_11_tot TYPE=STR LEN=6          #    "    Total
t_11_max TYPE=STR LEN=6          #    "    Maximum
t_11_nbr TYPE=STR LEN=6          #    "    Count
Month 12
t_12_avg TYPE=STR LEN=6          # Monthly Average
t_12_std TYPE=STR LEN=6          #    "    Std Deviation
t_12_skw TYPE=STR LEN=6          #    "    Skewness
t_12_kur TYPE=STR LEN=6          #    "    Kurtosis
t_12_tot TYPE=STR LEN=6          #    "    Total
t_12_max TYPE=STR LEN=6          #    "    Maximum
t_12_nbr TYPE=STR LEN=6          #    "    Count
Yearly Summary Values
t_fr     TYPE=STR LEN=6          # Frz-Thaw / Frz-Index Count
t_miss   TYPE=STR LEN=6          # Missing Data Count


RECORD2 FIELD DESCRIPTIONS
Total record size = 34

RECORD: G                        # GPS Site
g_gps   TYPE=STR     LEN=6       # GPS Site ID
g_sdate TYPE=STR     LEN=4       # Construction Year
g_lat   TYPE=STR     LEN=9       # Latitude
g_lng   TYPE=STR     LEN=10      # Longitude
g_ele   TYPE=STR     LEN=5       # Elevation


RECORD3 FIELD DESCRIPTIONS
Total record size = 66

RECORD: W                        # Weather Stations
w_sta   TYPE=STR     LEN=10      # Station ID
w_name  TYPE=STR     LEN=24      # Station name
w_lat   TYPE=STR     LEN=9       # Latitude
w_lng   TYPE=STR     LEN=10      # Longitude
w_lng   TYPE=STR     LEN=5       # Elevation
w_sdate TYPE=STR     LEN=4       # Start year
w_edate TYPE=STR     LEN=4       # End year
```

RECORD4 FIELD DESCRIPTIONS
Total record size = 34

```
RECORD: GW                          # GPS & Weather Stations
gw_site TYPE=STR/IDX LEN=6          # GPS ID
gw_sta  TYPE=STR     LEN=10         # Weather Station ID
gw_dist TYPE=STR     LEN=4          # Distance, 10ths of Miles
gw_ele  TYPE=STR     LEN=5          # Elevation diff. in Feet
gw_bear TYPE=STR      LEN=3          # Bearing GPS Site to WS, deg. ccw fm
North
gw_tmp  TYPE=STR     LEN=3          # % Temperature Coverage
gw_mois TYPE=STR     LEN=3          # % Moisture Coverage
```

PARAMETER CODE TABLE

CODE is the number used in this database. TYPE is the type of weather station that records this parameter. The NCDC and CCC columns show the parameter codes used by those agencies.

CODE	TYPE	NCDC	Units	Description	CCC	Units	Description
01	FO CP	TMAX	F	Max. temperature	001	C/10	Max. temperature
02	FO CP	TMIN	F	Min. temperature	002	C/10	Min. temperature
03	FO	MNTP	F	Mean temperature	003	C/10	Mean temperature
04	FO	MXRH	%	Max. rel humidity	004	%	Max. rel humidity
05	FO	MNRH	%	Min. rel humidity	005	%	Min. rel humidity
06	FO	AWND	M1	Avg wind speed			
10	FO CP	DYSW	NA	Daily weather			
11	FO CP	SNOW	1/10	Snow fall	011	cm/10	Snow fall
12	FO CP	PRCP	1/100	Precipitation	012	mm/10	Precipitation
13			F	Temperature range (calculated)			
14					014	NA	Thunder Storms
15					015	NA	Freezing Rain
16					016	NA	Hail
17					017	NA	Fog or Ice Fog
18					018	NA	Smoke or Haze
19					019	NA	Blowing Dust/Sand
20					020	NA	Blowing Snow
21					021	NA	Wind Speed >= 28 K
22					022	NA	Wind Speed >= 34 K
24	FO	PKGS	K	Gust Speed & Dir.	024	KM	Wind Speed
29	FO	PSUN	%	% Sunshine			
33O		SCMM	%	% Sky cover midnight to midnight			
34	FO	SCSS	%	% Sky cover sunrise to sunset			

UNITS DESCRIPTION

% = percent
1/10 = tenths of an inch
1/100 = hundredths of an inch
C/10 = tenths of degrees centigrade
F = degrees fahrenheit
K = knots
KM = kilometers per hour
M1 = tenths of miles per hour
NA = not applicable
cm/10 = tenths of a centimeter
mm/10 = tenths of a millimeter

LOGIC USED FOR CALCULATIONS

This section outlines in symbolic form the logic used to make calculations when building the middle and top level databases.

TMAX

When processing TMAX, the number of days over 90 F. is counted. If the GPS site is in Canada, the comparison temperature is set to the equivalent of 90 degrees F in tenths of degrees C.

```
Logic:
For each weather station:
    Get earliest construction year for all linked GPS sites.
    For each year:
        Get yearly TMAX record
        For each month:
            For each day:
               Get TMAX value
               Write middle level TMAX value and flags
               If TMAX > 90:  day_90 count += 1.
            Record day_90 count for month
            Calculate statistics for month
```

TMIN

When processing TMIN, the number of days under 32 F. is counted. If the GPS site is in Canada, the comparison temperature is set to 0 degrees C.

```
Logic:
For each weather station:
    Get earliest construction year for all linked GPS sites.
    For each year:
        Get yearly TMIN record
        For each month
            For each day
               Get TMIN value
               Write middle level TMIN value and flags
               If TMIN < 32:  day_32 count += 1
            Record day_32 count for month
            Calculate statistics for month
```

MNTP

When processing MNTP, the FREEZING INDEX is calculated. MNTP for Cooperative stations is a derived value and is described under MEAN DAILY TEMPERATURE, following. This logic only applies for those weather stations that measure MNTP. If the GPS site is in Canada, freezing index calculations are base on 0 degrees C.

```
Logic:
For each first order and CCC weather station:
    Get earliest construction year for all linked GPS sites.
    For each year:
        Get yearly MNTP record
        For each month:
            For each day:
               Get MNTP value
               If data is missing:
                   Missing data count += 1
                   Continue
               Write middle level MNTP value and flags
               If MNTP < 32:
                   Month Freeze_index += 32 - MNTP
                   Year  Freeze_index += 32 - MNTP
           Calculate statistics for month
        Write yearly Freezing index
```

MEAN DAILY TEMPERATURE

Cooperative stations do not have the MNTP parameter, so it is calculated when creating the middle level database. The calculated daily value, monthly and yearly statistics are stored under parameter code 03. In addition, the yearly FREEZING INDEX is calculated and stored with this parameter. If the GPS site is in Canada, freezing index calculations are base on 0 degrees C.

```
Logic:
For each weather station:
    For each year:
        Get yearly TMAX and TMIN records
        Set missing_data flag to OFF
        For each month:
            For each day:
               If TMAX missing:  set missing_data flag ON.
               If TMIN missing:  set missing_data flag ON.
               If missing_data flag is ON:
                   Missing data count += 1
                   Write "missing data" value
                   Set missing_data flag OFF
                   Continue
               Calculate (TMAX + TMIN)/2, write
               If MNTP < 32:  Freezing Index += 32 - MNTP
            Calculate statistics for the month
            Store derived values for the month
        Record yearly Freezing Index
        Record missing data count
```

DAILY TEMPERATURE RANGE

Daily temperature range is calculated for all types of weather stations when creating the middle level database. Each daily value is calculated by TMAX - TMIN. The calculated daily values and statistics are stored in the middle level as parameter 13 in order to make the Virtual station calculations. Only the monthly statistics are stored in the top level.

```
Logic:
For each weather station:
    For each year:
        Get TMAX and TMIN records
        For each month:
            For each day:
                If TMAX missing:
                        Write "missing data" value and flags
                        Continue
                If TMIN missing:
                        Write "missing data" value and flags
                        Continue
                Calculate TMAX - TMIN, write to output record
            Calculate statistics for the month
```

FREEZE THAW COUNT

Freeze thaw count is calculated when creating the middle level. It is the number of times per month (and year) that the temperature goes through one freeze thaw cycle. One assumption is that TMIN for a particular day occurs before the TMAX of that day.

```
Logic:
For each weather station:
  For each year:
      Get TMAX and TMIN yearly record
      Set missing_data count to 0
      Set freeze_thaw (FT) switch to ON
      Set begin_ft switch OFF
      Set half_ft switch OFF
      For each month:
          For each day:
              If TMAX missing:
                  Monthly missing_data count += 1
                  Yearly  missing_data count += 1
                  Continue
              If TMIN missing:
                  Monthly missing_data count += 1
                  Yearly  missing_data count += 1
                  Continue
              If TMIN is 32 F. (0 C.) or less:
                  If begin_ft switch is ON:
                      Set half_ft switch to ON
                      Set begin_ft switch to OFF
              If TMAX over 32 F. (0 C.):
                  If half_ft switch is ON:
                      Count monthly FT cycle
                      Count yearly FT cycle
                      Set half_ft switch OFF
                  Set begin_ft switch to ON
      End of month:
          Write monthly FT count
          Write monthly FT missing count
  End of year:
      Write yearly FT count
      Write yearly FT missing data count
```

Notes: Counting of freeze-thaw cycles for a year does not start until TMAX is over 32 F after 1 January; this means that one cycle per winter may be lost if TMAX on Dec 31 of previous year is above 32 F.

SNOW and PRCP

When calculating statistics, SNOW and PRCP need special treatment because of the S and A flags: "values included in Subsequent" or "Accumulated" values. Following is the logic used in distributing the accumulated amounts back across the days with S flags. After accumulated amounts are distributed, the monthly and yearly totals and statistics are calculated.

```
Logic:
For each weather station:
    Set s_switch OFF
    For each year:
        Get weather record
        For each month:
            For each day:
                If data missing, continue next day
                If S flag found:
                    If s_switch is OFF:
                        Mark this place
                            (beginning of a set of S flags)
                        Set s_day count = 0
                        Set s_switch ON
                    Increase s_day count by 1
                If A flag found and s_switch is ON:
                    Divide today's value by s_day count
                    Write avg value to previous days
                        with S flag and today
                    Set s_day switch OFF
            End of each day
        End for each month
```

TEMPERATURE COVERAGE

Temperature coverage is calculated when creating the middle level database, and stored in the "link" record in the top level.

```
Logic:
For each GPS site:
    For each linked weather station:
        From construction year to latest year:
            Get TMAX and TMIN records
            For each day of the year:
                If TMAX and TMIN exist, coverage += 1
                Day_count += 1
        % coverage = (coverage / day_count) x 100
        Write % coverage to weather station record.
```

MOISTURE COVERAGE

Moisture coverage is also calculated when creating the middle level database, and stored in the "link" record in the Top level.

```
Logic:
For each GPS site:
    For each linked weather station:
        From construction year to latest year:
            Get PRCP record
            For each day of the year:
                If PRCP is not missing, coverage += 1
                Day_count += 1
        Coverage % = (coverage / day_count) x 100
        Write to link record.
```

AWND, MXRH, MNRH, PKGS, PSUN, SCMM, and SCSS

These parameters are only measured by first order weather stations. The daily values are copied from low level to mid level and monthly statistics calculated. The range of dates for which this is done depends on the GPS site to which the weather station is linked. Only the monthly statistical data are transferred to the top level. Virtual weather station records are calculated for these parameters and, in most cases, are copies of the first order stations data.

STATISTICAL CALCULATIONS

Statistical calculations are made when creating the middle level database. The formulas used are the same as those in the RFP, page 6, with the exception that "n - 1" is used in the divisor in place of "n" in the formulas for standard deviation, kurtosis, and skewness.

VIRTUAL WEATHER STATION

Virtual records are calculated when creating the middle level database. Records are made for TMAX, TMIN, PRCP, and SNOW in all cases. If there is a first order station, virtual records for first order parameters are also calculated. In the most common case, where there is only one first order station, the virtual record is a copy of the first order record. However, Canadian stations often measure first order parameters, so if there are stations that measure first order parameters among the "cooperative" stations, their data are used in calculating the virtual parameter. The monthly and yearly statistics and derived values are calculated after the virtual daily values are determined.

```
Logic:
For each GPS site:
    Get distance from GPS site for each linked station
    For each year:
        For each parameter:
            Get each weather station's data into memory
            Write virtual record header
                For each month of the year:
                    For each day:
                        calculate daily virtual value
                    Calculate monthly statistics
                    Calculate monthly derived values
        Calculate yearly derived values

VIRTUAL VALUE CALCULATION
    For each linked station:
        Increase numerator of virtual value by
            daily value divided by distance squared.
        Increase denominator of virtual value by
            reciprocal of distance squared.
    Divide numerator by denominator,
        store virtual value in record
```

NOTES ON THE DATA AND PROCESSING

The following is a brief description of several interesting aspects that made this more than "just a simple weather database."

WEATHER STATION ID NUMBERS

This section provides a brief description of "station IDs" used throughout this project.

In Phase one (station selection) all USA station IDs were taken from EarthInfo's "Climate Daily" CD-ROM database. The station ID numbers consisted of a 2-character state abbreviation (Post Office code), two zeros, plus the 4 digit Cooperative Network Index Number from NCDC.

For example: GA002166

The Canadian station IDs were 7 characters; simple.

61219J1 or 6127514

After selection, the station IDs had to be massaged so they could be used to properly access each of the weather databases and retrieve the data.

Cooperative Weather Stations

Station ID's in the Cooperative database are 8 digits, but the first 6 are sufficient to identify a station. The last 2 digits indicate the station's "division", which can change. The first 2 digits are the NCDC State Code, not to be confused with the FIPS state code with which it has many similarities.

The ID for each selected cooperative station was changed to a 6 digit number by converting the two-character state PO code to the NCDC state code number. The original intention was to include the "division" number in the station ID, which required 8 characters. But the division number of a station can change during it's existence so Cooperative and First Order division numbers were all set to zero, keeping them at 8 characters as the database design required, and yet making the division irrelevant when selecting a station.

This, then, became the "weather station ID" in the SHRP/LTPP database. GA002166 became CP09216600 if it was a cooperative station, or FO09216600 if it was a first order station. Canadian station ID numbers were preceded with "CC0" to make them the same length as NCDC ID's: 61219J1 became CC061219J1.

First Order Weather Stations

The First Order weather database is accessed, not by the station ID number, but by a "WBAN" number, which ranges from 1 to 99999.

The next step in locating first order weather data, then, was to get the WBAN number for each First Order station through NCDC's "station history" files.

First Order weather data was retrieved using the WBAN number, but when the record was written to the SHRP/LTPP database, the WBAN number was replaced with the NCDC Station ID (prefaced with "FO") in order to retain links to the GPS sites established in phase I.

Short Lived First Order Stations

When stations were being selected during phase I, it was assumed that any station with a WBAN number was a First Order station. NCDC had stated that this was true "99 percent" of the time. This was found to be accurate, but no mention was made about how long the station was first order. There were many instances of a station that was first order for only a short period and still had a WBAN number. This caused many cycles of selecting first order stations, getting the WBAN numbers for them, and checking the FO database for the actual time the station was first order.

Canadian Weather Stations

Little station ID manipulation was necessary here, the ID selected in Phase one was used to select weather data. It was preceded with "CC0" to make it the same length as NCDC IDs and to make the link to the GPS site.

CALCULATING VIRTUAL WEATHER RECORDS

The daily VALUES and FLAGS of contributing weather stations were checked, and if a "missing" data value or flag was found, that value was skipped. All flags in the Virtual station are set to "space space."

Virtual monthly derived fields (max, tot, nbr) and statistics were calculated after the daily values were calculated.

When calculating FO parameters (those other than TMAX, TMIN, PRCP, SNOW), a virtual parameter was calculated if any data was found. And, when dealing with parameters in the range of Canadian parameters, "Coop stations" were checked for any Canadian station. If a Canadian station was there, it was included when calculating the Virtual parameter. If only a FO station was found, a virtual parameter was still calculated, but it is essentially a copy of the FO station's data.

PERCENT COVERAGE FOR MOISTURE AND TEMPERATURE

The figures for this percentage were taken while calculating the virtual weather stations (WSs). For each DAY with a TMAX value, the "temp. hits" counter for the current WS was incremented. For each YEAR of GPS site existence, the "temp. possible" counter for the WS was incremented by 365, or 366 if it was a leap year. In the same manner, moisture coverage figures were taken while calculating the virtual WS parameter for PRCP. When all the data for the GPS site had been processed, percentages were calculated and the GPS-WS link record was updated. This percentage then, refers to the number of days the weather station had valid data divided by the number of days the GPS site had existed.

ELEVATION DIFFERENCE

The reference is GPS site elevation. That is, difference = weather station elevation minus GPS elevation.

BEGIN AND END YEARS FOR WEATHER STATIONS

NCDC stations have a reported start and end year (1999, if still active), but Canadian stations do not have this information. Station start and end years were checked against the records in the database and updated as necessary. Many NCDC station history records show a later start date than was actually in the data, so many updates were required. Note: The current end date in the SHRP/LTPP database may not be the actual end date of the station, but only the last year of data that was available in the current data set.

DISTRIBUTING ACCUMULATED AMOUNTS OF PRCP OR SNOW

When distributing accumulated amounts, if an S flag was found and was not immediately followed by an S or A flag, that S flag was ignored. Consequently, the only time an A-flagged amount is distributed back is when it is immediately preceded by one or more S flags. This may have some effect on "days with PRCP over 0.5" or "days with PRCP over 0.1" and on monthly totals of PRCP and SNOW.

APPENDIX B

FINAL WEATHER STATION SELECTION LIST

```
**********************************************************************
* GPS SITE:  1/011001      N32:33:44 W085:07:52 ELEV:  495, 1981
**********************************************************************
FIRST O. F  US:AL005550    220 32:18 086:24(48-89) MONTGOMERY WSO AP        76.3
ACTIVE   C  US:GA002166    450 32:31 084:57(48-89) COLUMBUS WSO AP          11.0
REGULAR1 C  US:AL006129    760 32:38 085:23(57-89) OPELIKA                  15.5
REGULAR2 C  US:GA009291    580 32:52 085:11(30-89) WEST POINT               21.2
REGULAR3 C  US:AL000430    650 32:36 085:30(76-89) AUBURN AGRONOMY FARM     21.7
**********************************************************************
* GPS SITE:  2/011011      N34:55:00 W087:50:00 ELEV:  610, 1985
**********************************************************************
FIRST O. F  US:AL005749    540 34:45 087:37(40-89) MUSCLE SHOALS FAA AP     16.8
ACTIVE   C  US:MS004455    520 34:49 088:11(59-89) IUKA                     21.0
REGULAR1 C  US:TN009502    750 35:18 087:46(27-89) WAYNESBORO               26.7
REGULAR2 C  US:AL007131    880 34:31 087:44(53-89) RUSSELLVILLE 2           28.2
REGULAR3 C  US:TN008108    420 35:09 088:19(27-89) SAVANNAH 6 SW            31.8
**********************************************************************
* GPS SITE:  1/011019      N31:17:24 W088:01:53 ELEV:   61, 1986
**********************************************************************
FIRST O. F  US:AL005478    210 30:41 088:15(48-89) MOBILE WSO AP            43.9
ACTIVE   C  US:AL004193    220 31:30 087:54(61-89) JACKSON                  16.4
REGULAR1 C  US:AL001566    290 31:32 088:15(49-89) CHATOM 4 N               21.2
REGULAR2 C  US:AL000583    280 30:55 087:47(48-89) BAY MINETTE 3 NNW        29.7
REGULAR3 C  US:AL008867    170 31:39 087:43(48-89) WHATLEY                  31.0
**********************************************************************
* GPS SITE:  1/011021      N32:32:30 W086:12:30 ELEV:  182, 1985
**********************************************************************
FIRST O. F  US:AL005550    220 32:18 086:24(48-89) MONTGOMERY WSO AP        23.8
ACTIVE   C  US:AL005140    340 32:40 085:55(48-89) MARTIN DAM               15.7
REGULAR1 C  US:AL005439    220 32:27 085:53(48-89) MILSTEAD                 18.9
REGULAR2 C  US:AL007020    600 32:53 086:10(54-89) ROCKFORD 3 ESE           20.7
REGULAR3 C  US:AL000160    640 32:57 085:56(69-89) ALEXANDER CITY           28.7
**********************************************************************
* GPS SITE:  3/013028      N33:36:41 W086:38:58 ELEV:  810, 1971
**********************************************************************
FIRST O. F  US:AL000831    630 33:34 086:45(30-89) BIRMINGHAM FAA AP         6.6
ACTIVE   C  US:AL006478    610 33:41 086:42(80-89) PINSON                    5.8
REGULAR1 C  US:AL000829    740 33:28 086:50(79-89) BIRMINGHAM WSFO          14.6
REGULAR2 C  US:AL000764    450 33:24 087:00(77-89) BESSEMER 3 WSW           24.9
REGULAR3 C  US:AL006121    870 33:57 086:29(48-89) ONEONTA                  25.3
**********************************************************************
* GPS SITE:  5/013998      N32:43:34 W088:06:46 ELEV:  130, 1975
**********************************************************************
FIRST O. F  US:MS005776    290 32:20 088:45(48-89) MERIDIAN WSO AP          46.0
ACTIVE   C  US:AL003160    130 32:50 088:08(48-89) GAINESVILLE LOCK          7.5
REGULAR1 C  US:AL004798    160 32:35 088:12(48-89) LIVINGSTON 2 SW          11.1
REGULAR2 C  US:AL002245    100 32:31 087:50(51-89) DEMOPOLIS LOCK AND DA    21.8
REGULAR3 C  US:AL000178    140 33:08 088:10(34-89) ALICEVILLE               28.3
**********************************************************************
* GPS SITE:  4/014007      N33:35:10 W086:40:40 ELEV:  847, 1976
**********************************************************************
FIRST O. F  US:AL000831    630 33:34 086:45(30-89) BIRMINGHAM FAA AP         4.4
ACTIVE   C  US:AL006478    610 33:41 086:42(80-89) PINSON                    6.8
REGULAR1 C  US:AL000829    740 33:28 086:50(79-89) BIRMINGHAM WSFO          12.2
REGULAR2 C  US:AL000764    450 33:24 087:00(77-89) BESSEMER 3 WSW           22.6
REGULAR3 C  US:AL006121    870 33:57 086:29(48-89) ONEONTA                  27.5
**********************************************************************
* GPS SITE:  2/014072      N31:30:00 W085:18:45 ELEV:  420, 1989
**********************************************************************
FIRST O. F  US:AL005550    220 32:18 086:24(48-89) MONTGOMERY WSO AP        84.4
ACTIVE   C  US:AL003761    370 31:21 085:20(50-89) HEADLAND                 10.4
REGULAR1 C  US:GA000979    270 31:21 084:57( 1-89) BLAKELY                  23.8
REGULAR2 C  US:AL001725    600 31:53 085:28(48-89) CLAYTON                  28.0
REGULAR3 C  US:AL002675    470 31:23 085:54(66-89) ENTERPRISE               35.6
**********************************************************************
* GPS SITE:  2/014073      N34:45:29 W085:54:27 ELEV:  637, 1988
**********************************************************************
FIRST O. F  US:TN001656    680 35:02 085:12(28-89) CHATTANOOGA WSO AP       46.2
ACTIVE   C  US:AL007304    620 34:41 086:03(27-89) SCOTTSBORO                7.9
REGULAR1 C  US:AL001099    670 34:59 085:49(48-89) BRIDGEPORT 5 NW          19.3
REGULAR2 C  US:AL008469   1040 34:34 085:37(48-89) VALLEY HEAD              20.0
REGULAR3 C  US:AL007207   1200 34:17 085:58(49-89) SAND MT SUBSTATION AU    30.1
```

```
**********************************************************************
* GPS SITE:  4/014084      N33:27:30 W086:55:00 ELEV:  545, 1970
**********************************************************************
FIRST O. F  US:AL000831    630 33:34 086:45(30-89) BIRMINGHAM FAA AP        23.7
ACTIVE    C  US:AL000764    450 33:24 087:00(77-89) BESSEMER 3 WSW           5.4
REGULAR1 C  US:AL000829    740 33:28 086:50(79-89) BIRMINGHAM WSFO          15.5
REGULAR2 C  US:AL000505    280 33:27 087:21(57-89) BANKHEAD LOCK AND DAM    19.1
REGULAR3 C  US:AL001288    540 33:05 086:47(48-84) CALERA 2 SW              23.2
**********************************************************************
* GPS SITE:  1/014125      N32:25:00 W086:15:00 ELEV:  185, 1972
**********************************************************************
FIRST O. F  US:AL005550    220 32:18 086:24(48-89) MONTGOMERY WSO AP        11.9
ACTIVE    C  US:AL005140    340 32:40 085:55(48-89) MARTIN DAM               26.0
REGULAR1 C  US:AL003816    590 31:57 086:19(48-89) HIGHLAND HOME            32.5
REGULAR2 C  US:AL007020    600 32:53 086:10(54-89) ROCKFORD 3 ESE           32.6
REGULAR3 C  US:AL001694    580 32:51 086:38(20-86) CLANTON                  37.3
**********************************************************************
* GPS SITE:  1/014126      N34:10:00 W086:52:30 ELEV:  760, 1988
**********************************************************************
FIRST O. F  US:AL004064    620 34:39 086:46(59-89) HUNTSVILLE WSO AP        36.1
ACTIVE    C  US:AL007157    800 34:10 086:49(30-89) SAINT BERNARD             3.7
REGULAR1 C  US:AL002840    630 34:22 086:53(48-89) FALKVILLE 1 E            16.1
REGULAR2 C  US:AL006121    870 33:57 086:29(48-89) ONEONTA                  25.4
REGULAR3 C  US:AL006478    610 33:41 086:42(80-89) PINSON                   32.5
**********************************************************************
* GPS SITE: 6B/014127      N34:54:25 W087:21:40 ELEV:  658, 1974
**********************************************************************
FIRST O. F  US:AL005749    540 34:45 087:37(40-89) MUSCLE SHOALS FAA AP     15.3
ACTIVE    C  US:AL000395    720 34:48 086:59(55-89) ATHENS 2                 21.9
REGULAR1 C  US:AL005635    650 34:29 087:18(57-89) MOULTON 2                24.5
REGULAR2 C  US:TN005089    870 35:15 087:21(54-89) LAWRENCEBURG FILT PL     28.8
REGULAR3 C  US:AL000655    600 34:42 086:53(50-89) BELLE MINA 2 N           29.0
**********************************************************************
* GPS SITE: 6B/014129      N33:02:30 W086:08:45 ELEV:  737, 1976
**********************************************************************
FIRST O. F  US:AL000272    610 33:35 085:51(48-89) ANNISTON FAA AP          35.6
ACTIVE    C  US:AL000160    640 32:57 085:56(69-89) ALEXANDER CITY           10.0
REGULAR1 C  US:AL007999    490 33:12 086:12(50-89) SYLACAUGA 4 NE           14.1
REGULAR2 C  US:AL007020    600 32:53 086:10(54-89) ROCKFORD 3 ESE           16.9
REGULAR3 C  US:AL000369    990 33:17 085:48(48-89) ASHLAND 3 ENE            18.0
**********************************************************************
* GPS SITE:  1/014155      N31:15:00 W085:34:00 ELEV:  325, 1976
**********************************************************************
FIRST O. F  US:AL005550    220 32:18 086:24(48-89) MONTGOMERY WSO AP        87.5
ACTIVE    C  US:AL003761    370 31:21 085:20(50-89) HEADLAND                 15.4
REGULAR1 C  US:AL006218    470 31:32 085:41(30-86) OZARK 6 NNW              20.7
REGULAR2 C  US:AL002675    470 31:23 085:54(66-89) ENTERPRISE               21.7
REGULAR3 C  US:AL003251    150 31:03 085:53(76-89) GENEVA 2                 23.3
**********************************************************************
* GPS SITE:  5/015008      N33:39:46 W085:23:07 ELEV: 1023, 1977
**********************************************************************
FIRST O. F  US:AL000272    610 33:35 085:51(48-89) ANNISTON FAA AP          27.3
ACTIVE    C  US:AL003775    850 33:39 085:36(56-89) HEFLIN                   12.4
REGULAR1 C  US:GA001640    990 33:36 085:05(48-89) CARROLLTON               17.9
REGULAR2 C  US:GA001732    790 34:01 085:15(48-89) CEDARTOWN                25.6
REGULAR3 C  US:AL000369    990 33:17 085:48(48-89) ASHLAND 3 ENE            35.5
**********************************************************************
* GPS SITE: 6A/016012      N33:07:11 W087:38:34 ELEV:  142, 1972
**********************************************************************
FIRST O. F  US:AL000831    630 33:34 086:45(30-89) BIRMINGHAM FAA AP        60.1
ACTIVE    C  US:AL008385    150 33:13 087:35(48-89) TUSCALOOSA OLIVER DAM     7.5
REGULAR1 C  US:AL008380    170 33:14 087:37(48-89) TUSCALOOSA FAA AP         8.0
REGULAR2 C  US:AL001525    460 32:54 087:15(74-89) CENTREVILLE WSMO         27.4
REGULAR3 C  US:AL000505    280 33:27 087:21(57-89) BANKHEAD LOCK AND DAM    28.4
**********************************************************************
* GPS SITE: 6A/016019      N30:57:52 W087:45:31 ELEV:  214, 1966
**********************************************************************
FIRST O. F  US:AL005478    210 30:41 088:15(48-89) MOBILE WSO AP            35.1
ACTIVE    C  US:AL000583    280 30:55 087:47(48-89) BAY MINETTE 3 NNW         3.6
REGULAR1 C  US:AL000407    220 31:01 087:31(65-82) ATMORE                   14.8
REGULAR2 C  US:AL006988    180 30:37 087:40(30-89) ROBERTSDALE 5 NE         24.6
REGULAR3 C  US:AL002813     20 30:33 087:53(48-89) FAIRHOPE 2 NE            29.6
```

```
*********************************************************************
* GPS SITE:  1/021001      N60:40:10 W149:27:27 ELEV: 1310, 1983
*********************************************************************
FIRST O. F  US:AK003665     90 59:38 151:30(32-89) HOMER WSO AP          100.3  REJECTED
ACTIVE   C  US:AK005894    490 60:30 149:26(52-89) MOOSE PASS 3 NW        11.7
REGULAR1 C  US:AK003720    150 60:55 149:38(79-89) HOPE                   18.1
REGULAR2 C  US:AK007494     30 60:49 148:59(73-89) PORTAGE GLACIER CHEVR   19.0
REGULAR3 C  US:AK002144    450 60:23 149:40(58-89) COOPER LAKE PROJECT     21.0
*********************************************************************
* GPS SITE:  1/021002      N60:45:09 W149:15:07 ELEV:  839, 1985
*********************************************************************
FIRST O. F  US:AK003665     90 59:38 151:30(32-89) HOMER WSO AP          109.3
ACTIVE   C  US:AK007494     30 60:49 148:59(73-89) PORTAGE GLACIER CHEVR   10.1
REGULAR1 C  US:AK000243    250 60:58 149:08(63-89) ALYESKA                 15.3
REGULAR2 C  US:AK003720    150 60:55 149:38(79-89) HOPE                    17.1
REGULAR3 C  US:AK005894    490 60:30 149:26(52-89) MOOSE PASS 3 NW         18.5
*********************************************************************
* GPS SITE:  1/021004      N61:10:57 W149:44:38 ELEV:  315, 1976
*********************************************************************
FIRST O. F  US:AK003665     90 59:38 151:30(32-89) HOMER WSO AP          122.6
ACTIVE   C  US:AK002820    190 61:15 149:48(51-89) ELMENDORF AF BASE       5.0
REGULAR1 C  US:AK003299   2260 61:06 149:41(71-89) GLEN ALPS               6.0
REGULAR2 C  US:AK000280    110 61:10 150:01(52-89) ANCHORAGE WSCMO AP       9.2
REGULAR3 C  US:AK002648   2140 61:14 149:26(76-84) EAGLE RIVER SOUTH FOR   10.9
*********************************************************************
* GPS SITE:  1/021008      N64:57:05 W147:37:15 ELEV:  721, 1979
*********************************************************************
FIRST O. F  US:AK000761    640 66:55 151:31(51-89) BETTLES FAA AP         174.6  REJECTED
ACTIVE   C  US:AK002112    950 64:56 147:50(76-89) COLLEGE 5 NW            6.3
REGULAR1 C  US:AK002107    620 64:52 147:50(49-89) COLLEGE OBSERVATORY      8.5
REGULAR2 C  US:AK009641    480 64:51 147:52(31-89) UNIVERSITY EXP STN      10.1
REGULAR3 C  US:AK002968    440 64:49 147:52(49-89) FAIRBANKS WSFO AP       11.8
*********************************************************************
* GPS SITE: 6A/026010      N61:19:49 W149:33:45 ELEV:  252, 1974
*********************************************************************
FIRST O. F  US:AK003665     90 59:38 151:30(32-89) HOMER WSO AP          134.5
ACTIVE   C  US:AK002820    190 61:15 149:48(51-89) ELMENDORF AF BASE       9.6
REGULAR1 C  US:AK009759     50 61:32 149:26(49-89) WASILLA 3 S            14.7
REGULAR2 C  US:AK002730     40 61:28 149:10(52-89) EKLUTNA PROJECT        16.1
REGULAR3 C  US:AK003299   2260 61:06 149:41(71-89) GLEN ALPS             16.4
*********************************************************************
* GPS SITE: 6B/029035      N62:25:12 W150:15:18 ELEV:  547, 1972
*********************************************************************
FIRST O. F  US:AK003465   1570 62:09 145:27(49-89) GULKANA FSS/AMOS       155.7  REJECTED
ACTIVE   C  US:AK008976    350 62:18 150:06(49-89) TALKEETNA WSCMO AP      9.7
REGULAR1 C  US:AK001926   1250 62:53 149:50(71-89) CHULITNA RIVER LODGE   34.7
REGULAR2 C  US:AK008536    150 61:58 151:12(49-89) SKWENTNA               43.7
REGULAR3 C  US:AK009790    270 61:42 150:00(71-89) WHITE'S CROSSING       50.4
*********************************************************************
* GPS SITE:  1/041001      N33:27:41 W112:26:59 ELEV: 1046, 1978
*********************************************************************
FIRST O. F  US:AZ006481   1110 33:26 112:01(48-89) PHOENIX WSFO AP        25.1
ACTIVE   C  US:AZ004977   1030 33:30 112:22(17-89) LITCHFIELD PARK        5.5
REGULAR1 C  US:AZ001026    870 33:22 112:35( 1-89) BUCKEYE               10.1
REGULAR2 C  US:AZ009634   1140 33:36 112:18(64-89) YOUNGTOWN             12.9
REGULAR3 C  US:AZ004829   1120 33:20 112:09(48-89) LAVEEN 3 SSE          19.4
*********************************************************************
* GPS SITE:  1/041002      N35:13:10 W112:29:20 ELEV: 5135, 1979
*********************************************************************
FIRST O. F  US:AZ003010   7010 35:08 111:40(50-89) FLAGSTAFF WSO AP       47.3  REJECTED
ACTIVE   C  US:AZ009359   6750 35:15 112:11( 2-89) WILLIAMS              18.2  REJECTED
REGULAR1 C  US:AZ007716   5250 35:19 112:53( 4-89) SELIGMAN              23.1
REGULAR2 C  US:AZ009158   5090 34:56 112:49(15-89) WALNUT CREEK          25.7
REGULAR3 C  US:AZ001654   4750 34:45 112:27(48-89) CHINO VALLEY          31.2
*********************************************************************
* GPS SITE:  1/041003      N33:28:00 W112:45:00 ELEV: 1103, 1975
*********************************************************************
FIRST O. F  US:AZ006481   1110 33:26 112:01(48-89) PHOENIX WSFO AP        42.4
ACTIVE   C  US:AZ008641   1110 33:28 112:57(51-89) TONOPAH               11.5
REGULAR1 C  US:AZ001026    870 33:22 112:35( 1-89) BUCKEYE               11.8
REGULAR2 C  US:AZ004977   1030 33:30 112:22(17-89) LITCHFIELD PARK       22.2
REGULAR3 C  US:AZ009634   1140 33:36 112:18(64-89) YOUNGTOWN             27.5  REJECTED
```

```
**********************************************************************
* GPS SITE:  1/041006      N33:26:08 W112:39:37 ELEV: 5722, 1976
**********************************************************************
FIRST O. F  US:AZ006481   1110 33:26 112:01(48-89) PHOENIX WSFO AP          37.2
ACTIVE   C  US:AZ001026    870 33:22 112:35( 1-89) BUCKEYE                  6.5
REGULAR1 C  US:AZ008641   1110 33:28 112:57(51-89) TONOPAH                 16.9
REGULAR2 C  US:AZ004977   1030 33:30 112:22(17-89) LITCHFIELD PARK         17.5
REGULAR3 C  US:AZ009634   1140 33:36 112:18(64-89) YOUNGTOWN               23.7
**********************************************************************
* GPS SITE:  1/041007      N33:26:11 W112:34:52 ELEV: 1044, 1978
**********************************************************************
FIRST O. F  US:AZ006481   1110 33:26 112:01(48-89) PHOENIX WSFO AP          32.6
ACTIVE   C  US:AZ001026    870 33:22 112:35( 1-89) BUCKEYE                  4.8
REGULAR1 C  US:AZ004977   1030 33:30 112:22(17-89) LITCHFIELD PARK         13.1
REGULAR2 C  US:AZ009634   1140 33:36 112:18(64-89) YOUNGTOWN               19.8
REGULAR3 C  US:AZ008641   1110 33:28 112:57(51-89) TONOPAH                 21.4
**********************************************************************
* GPS SITE:  1/041015      N31:33:33 W111:03:04 ELEV: 3333, 1979
**********************************************************************
FIRST O. F  US:AZ008820   2580 32:08 110:57(48-89) TUCSON WSO AP           40.1  REJECTED
ACTIVE   C  US:AZ008865   3270 31:34 111:03(48-89) TUMACACORI N M           0.5
REGULAR1 C  US:AZ005924   3560 31:25 110:57(52-89) NOGALES 6 N             11.5
REGULAR2 C  US:AZ007593   4300 31:46 110:51(50-89) SANTA RITA EXP RANGE    18.6
REGULAR3 C  US:AZ008795   2560 31:15 111:12(82-89) TUCSON 17 NW            23.1  REJECTED
**********************************************************************
* GPS SITE:  1/041016      N31:38:19 W111:03:27 ELEV: 3218, 1979
**********************************************************************
FIRST O. F  US:AZ006481   1110 33:26 112:01(48-89) PHOENIX WSFO AP         136.0  REJECTED
ACTIVE   C  US:AZ008865   3270 31:34 111:03(48-89) TUMACACORI N M           5.0
REGULAR1 C  US:AZ007593   4300 31:46 110:51(50-89) SANTA RITA EXP RANGE    15.1
REGULAR2 C  US:AZ005924   3560 31:25 110:57(52-89) NOGALES 6 N             16.6
REGULAR3 C  US:AZ008795   2560 31:15 111:12(82-89) TUCSON 17 NW            28.1  REJECTED
**********************************************************************
* GPS SITE:  1/041017      N31:45:54 W111:02:07 ELEV: 2990, 1976
**********************************************************************
FIRST O. F  US:AZ006481   1110 33:26 112:01(48-89) PHOENIX WSFO AP         128.6  REJECTED
ACTIVE   C  US:AZ007593   4300 31:46 110:51(50-89) SANTA RITA EXP RANGE    10.9
REGULAR1 C  US:AZ008865   3270 31:34 111:03(48-89) TUMACACORI N M           13.7
REGULAR2 C  US:AZ005924   3560 31:25 110:57(52-89) NOGALES 6 N             24.6
REGULAR3 C  US:AZ000287   2750 31:59 111:23(48-89) ANVIL RANCH              25.4
**********************************************************************
* GPS SITE:  1/041018      N31:48:26 W111:00:43 ELEV: 2466, 1976
**********************************************************************
FIRST O. F  US:AZ006481   1110 33:26 112:01(48-89) PHOENIX WSFO AP         126.6  REJECTED
ACTIVE   C  US:AZ007593   4300 31:46 110:51(50-89) SANTA RITA EXP RANGE     9.9
REGULAR1 C  US:AZ008865   3270 31:34 111:03(48-89) TUMACACORI N M           16.8
REGULAR2 C  US:AZ008820   2580 32:08 110:57(48-89) TUCSON WSO AP            22.8
REGULAR3 C  US:AZ000287   2750 31:59 111:23(48-89) ANVIL RANCH              25.0  REJECTED
**********************************************************************
* GPS SITE:  1/041021      N35:09:39 W113:40:56 ELEV: 3574, 1978
**********************************************************************
FIRST O. F  US:NV004436   2160 36:05 115:10(49-89) LAS VEGAS WSO AP         105.0  REJECTED
ACTIVE   C  US:AZ004645   3540 35:12 114:01(67-89) KINGMAN 2                19.1
REGULAR1 C  US:AZ009309   2010 34:43 113:37(48-89) WIKIEUP                  30.9  REJECTED
REGULAR2 C  US:AZ009645   1950 34:53 114:08(50-89) YUCCA 1 NNE              31.9  REJECTED
REGULAR3 C  US:AZ007716   5250 35:19 112:53( 4-89) SELIGMAN                 46.4  REJECTED
**********************************************************************
* GPS SITE:  1/041022      N35:09:40 W113:35:50 ELEV: 3750, 1977
**********************************************************************
FIRST O. F  US:NV004436   2160 36:05 115:10(49-89) LAS VEGAS WSO AP         108.8  REJECTED
ACTIVE   C  US:AZ004645   3540 35:12 114:01(67-89) KINGMAN 2                23.9
REGULAR1 C  US:AZ009309   2010 34:43 113:37(48-89) WIKIEUP                  30.7  REJECTED
REGULAR2 C  US:AZ009645   1950 34:53 114:08(50-89) YUCCA 1 NNE              35.9  REJECTED
REGULAR3 C  US:AZ007716   5250 35:19 112:53( 4-89) SELIGMAN                 41.7
**********************************************************************
* GPS SITE:  1/041024      N35:16:42 W113:07:43 ELEV: 5456, 1977
**********************************************************************
FIRST O. F  US:AZ003010   7010 35:08 111:40(50-89) FLAGSTAFF WSO AP         83.2  REJECTED
ACTIVE   C  US:AZ007716   5250 35:19 112:53( 4-89) SELIGMAN                 14.1
REGULAR1 C  US:AZ009158   5090 34:56 112:49(15-89) WALNUT CREEK             29.7  REJECTED
REGULAR2 C  US:AZ000490   5330 35:17 112:28(76-83) ASH FORK 5 N             37.4
REGULAR3 C  US:AZ000584   4120 34:36 113:08(78-86) BAGDAD 2                 46.8  REJECTED
```

```
*********************************************************************
* GPS SITE:  1/041025      N35:15:00 W112:58:00 ELEV: 5483, 1978
*********************************************************************
FIRST O. F  US:AZ003010   7010 35:08 111:40(50-89) FLAGSTAFF WSO AP        73.9  REJECTED
ACTIVE   C  US:AZ007716   5250 35:19 112:53( 4-89) SELIGMAN                6.6
REGULAR1 C  US:AZ009158   5090 34:56 112:49(15-89) WALNUT CREEK            23.5
REGULAR2 C  US:AZ009359   6750 35:15 112:11( 2-89) WILLIAMS                44.2
REGULAR3 C  US:AZ001654   4750 34:45 112:27(48-89) CHINO VALLEY            45.3
*********************************************************************
* GPS SITE:  1/041034      N34:09:32 W114:16:02 ELEV:  419, 1975
*********************************************************************
FIRST O. F  US:CA008892        33:38 116:10(50-89) THERMAL FAA AP          114.9  REJECTED
ACTIVE   C  US:AZ006250    410 34:11 114:13( 1-89) PARKER 6 NE              3.3
REGULAR1 C  US:CA006699    740 34:17 114:10(43-89) PARKER RESERVOIR        10.3
REGULAR2 C  US:AZ000949    930 33:57 114:02(52-89) BOUSE                   19.7
REGULAR3 C  US:AZ004759    480 34:27 114:22(67-89) LAKE HAVASU             20.9
*********************************************************************
* GPS SITE:  1/041036      N35:42:41 W114:28:39 ELEV: 2406, 1983
*********************************************************************
FIRST O. F  US:NV004436   2160 36:05 115:10(49-89) LAS VEGAS WSO AP         46.4  REJECTED
ACTIVE   C  US:AZ009376    760 35:52 114:39(67-89) WILLOW BEACH            14.4
REGULAR1 C  US:NV001071   2530 35:59 114:51(31-89) BOULDER CITY            28.1
REGULAR2 C  US:NV007369   3540 35:28 114:55(48-89) SEARCHLIGHT             29.9
REGULAR3 C  US:AZ001050    540 35:10 114:34(77-89) BULLHEAD CITY           37.9
*********************************************************************
* GPS SITE:  1/041037      N35:12:00 W114:30:00 ELEV:  831, 1985
*********************************************************************
FIRST O. F  US:NV004436   2160 36:05 115:10(49-89) LAS VEGAS WSO AP         71.6  REJECTED
ACTIVE   C  US:AZ001050    540 35:10 114:34(77-89) BULLHEAD CITY            4.4
REGULAR1 C  US:AZ004645   3540 35:12 114:01(67-89) KINGMAN 2               27.3
REGULAR2 C  US:NV007369   3540 35:28 114:55(48-89) SEARCHLIGHT             29.9
REGULAR3 C  US:AZ009645   1950 34:53 114:08(50-89) YUCCA 1 NNE              30.2
*********************************************************************
* GPS SITE:  2/041062      N35:11:28 W113:20:45 ELEV: 5060, 1977
*********************************************************************
FIRST O. F  US:AZ003010   7010 35:08 111:40(50-89) FLAGSTAFF WSO AP         95.0  REJECTED
ACTIVE   C  US:AZ007716   5250 35:19 112:53( 4-89) SELIGMAN                27.5
REGULAR1 C  US:AZ009158   5090 34:56 112:49(15-89) WALNUT CREEK            34.8
REGULAR2 C  US:AZ009309   2010 34:43 113:37(48-89) WIKIEUP                 36.2  REJECTED
REGULAR3 C  US:AZ004645   3540 35:12 114:01(67-89) KINGMAN 2               37.9  REJECTED
*********************************************************************
* GPS SITE:  2/041065      N35:12:31 W113:16:03 ELEV: 5301, 1977
*********************************************************************
FIRST O. F  US:AZ003010   7010 35:08 111:40(50-89) FLAGSTAFF WSO AP         90.7  REJECTED
ACTIVE   C  US:AZ007716   5250 35:19 112:53( 4-89) SELIGMAN                22.9
REGULAR1 C  US:AZ009158   5090 34:56 112:49(15-89) WALNUT CREEK            31.8
REGULAR2 C  US:AZ009309   2010 34:43 113:37(48-89) WIKIEUP                 39.3
REGULAR3 C  US:AZ004645   3540 35:12 114:01(67-89) KINGMAN 2               42.3  REJECTED
*********************************************************************
* GPS SITE: 6A/046053      N32:03:00 W110:26:00 ELEV: 3876, 1956
*********************************************************************
FIRST O. F  US:AZ006481   1110 33:26 112:01(48-89) PHOENIX WSFO AP         132.7  REJECTED
ACTIVE   C  US:AZ000309   3690 31:54 110:15(23-89) APACHE POWDER CO         14.9
REGULAR1 C  US:AZ000680   3670 31:58 110:18( 1-75) BENSON                   9.7
REGULAR2 C  US:AZ001330   3150 32:19 110:24(69-89) CASCABEL                 18.5
REGULAR3 C  US:AZ008800   2530 32:15 110:50(48-89) TUCSON MAGNETIC OBS      27.2
*********************************************************************
* GPS SITE: 6A/046054      N32:05:00 W110:58:00 ELEV: 2672, 1969
*********************************************************************
FIRST O. F  US:AZ006481   1110 33:26 112:01(48-89) PHOENIX WSFO AP         111.5  REJECTED
ACTIVE   C  US:AZ008820   2580 32:08 110:57(48-89) TUCSON WSO AP            3.6
REGULAR1 C  US:AZ008815   2440 32:15 110:57( 1-89) TUCSON U OF A           11.6
REGULAR2 C  US:AZ008796   2330 32:17 110:57(49-89) TUCSON CAMP AVE EXP F    13.8
REGULAR3 C  US:AZ008800   2530 32:15 110:50(48-89) TUCSON MAGNETIC OBS      13.9
*********************************************************************
* GPS SITE: 6A/046055      N33:14:46 W112:38:16 ELEV:  910, 1956
*********************************************************************
FIRST O. F  US:AZ006481   1110 33:26 112:01(48-89) PHOENIX WSFO AP          38.1
ACTIVE   C  US:AZ001026    870 33:22 112:35( 1-89) BUCKEYE                  8.9
REGULAR1 C  US:AZ003393    740 32:57 112:43( 1-89) GILA BEND               20.9
REGULAR2 C  US:AZ004977   1030 33:30 112:22(17-89) LITCHFIELD PARK         23.5
REGULAR3 C  US:AZ004829   1120 33:20 112:09(48-89) LAVEEN 3 SSE             28.8
```

```
**********************************************************************
* GPS SITE: 6A/046060      N31:31:07 W111:00:58 ELEV: 3350, 1967
**********************************************************************
FIRST O. F  US:AZ006481   1110 33:26 112:01(48-89) PHOENIX WSFO AP          144.5  REJECTED
ACTIVE   C  US:AZ008865   3270 31:34 111:03(48-89) TUMACACORI N M            3.9
REGULAR1 C  US:AZ005924   3560 31:25 110:57(52-89) NOGALES 6 N               8.0
REGULAR2 C  US:AZ005921   3810 31:21 110:55(48-83) NOGALES                  13.0
REGULAR3 C  US:AZ007593   4300 31:46 110:51(50-89) SANTA RITA EXP RANGE     19.7
**********************************************************************
* GPS SITE:  5/047079      N33:33:37 W112:12:38 ELEV: 1250, 1989
**********************************************************************
FIRST O. F  US:AZ006481   1110 33:26 112:01(48-89) PHOENIX WSFO AP          16.3
ACTIVE   C  US:AZ009634   1140 33:36 112:18(64-89) YOUNGTOWN                4.8
REGULAR1 C  US:AZ004977   1030 33:30 112:22(17-89) LITCHFIELD PARK         11.1
REGULAR2 C  US:AZ006486   1080 33:27 112:04(48-89) PHOENIX CITY            13.5
REGULAR3 C  US:AZ008112   1160 33:23 112:04(61-89) SOUTH PHOENIX           17.3
**********************************************************************
* GPS SITE:  3/047613      N33:24:52 W111:51:44 ELEV: 1200, 1979
**********************************************************************
FIRST O. F  US:AZ006481   1110 33:26 112:01(48-89) PHOENIX WSFO AP          10.6
ACTIVE   C  US:AZ005467   1230 33:25 111:52( 1-89) MESA EXPERIMENT FARM     1.9
REGULAR1 C  US:AZ007661   1200 33:28 111:53(68-85) SCOTTSDALE               4.5
REGULAR2 C  US:AZ008499   1170 33:25 111:56(53-89) TEMPE ASU                5.8
REGULAR3 C  US:AZ008489   1150 33:26 111:56(26-84) TEMPE                     5.9
**********************************************************************
* GPS SITE:  3/047614      N33:27:27 W112:07:24 ELEV: 1050, 1984
**********************************************************************
FIRST O. F  US:AZ006481   1110 33:26 112:01(48-89) PHOENIX WSFO AP          13.7
ACTIVE   C  US:AZ004977   1030 33:30 112:22(17-89) LITCHFIELD PARK          7.1
REGULAR1 C  US:AZ009634   1140 33:36 112:18(64-89) YOUNGTOWN                9.6
REGULAR2 C  US:AZ006486   1080 33:27 112:04(48-89) PHOENIX CITY            10.6
REGULAR3 C  US:AZ004829   1120 33:20 112:09(48-89) LAVEEN 3 SSE             10.9
**********************************************************************
* GPS SITE:  2/052042      N33:06:00 W092:00:00 ELEV:  140, 1972
**********************************************************************
FIRST O. F  US:LA006303     80 32:31 092:03(30-89) MONROE FAA AP           40.4
ACTIVE   C  US:AR001730    180 33:07 091:57(48-89) CROSSETT 2 SSE           3.1
REGULAR1 C  US:LA000537    140 32:47 091:54(48-89) BASTROP                 22.6
REGULAR2 C  US:AR004934     90 33:19 092:27(48-85) MOROBAY LOCK 8          30.0
REGULAR3 C  US:AR005866    120 33:14 091:30( 9-89) PORTLAND                30.4
**********************************************************************
* GPS SITE:  3/053011      N35:24:00 W091:27:00 ELEV:  223, 1983
**********************************************************************
FIRST O. F  US:AR004248    260 34:44 092:14( 1-89) LITTLE ROCK FAA AP      63.9
ACTIVE   C  US:AR005186    230 35:36 091:16(30-89) NEWPORT                 17.2
REGULAR1 C  US:AR006506    250 35:15 091:45(30-89) SEARCY                  19.8
REGULAR2 C  US:AR000536    220 35:26 091:06(48-89) BEEDEVILLE              19.9
REGULAR3 C  US:AR000460    280 35:45 091:38(48-89) BATESVILLE L AND D 1    26.3
**********************************************************************
* GPS SITE:  2/053048      N34:24:00 W091:12:00 ELEV:  200, 1983
**********************************************************************
FIRST O. F  US:AR004248    260 34:44 092:14( 1-89) LITTLE ROCK FAA AP      63.2
ACTIVE   C  US:AR006376    200 34:23 091:08(48-89) SAINT CHARLES            4.0
REGULAR1 C  US:AR006920    200 34:28 091:25( 1-89) STUTTGART 9 ESE         13.2
REGULAR2 C  US:AR001442    180 34:41 091:19(48-89) CLARENDON               20.7
REGULAR3 C  US:AR000240    190 34:01 091:21(63-89) ARKANSAS POST           27.8
**********************************************************************
* GPS SITE:  2/053058      N35:51:00 W090:45:00 ELEV:  237, 1990
**********************************************************************
FIRST O. F  US:TN005954    270 35:03 090:00(40-89) MEMPHIS FAA-AP          69.6
ACTIVE   C  US:AR003734    390 35:53 090:42( 1-89) JONESBORO 4 N            3.6
REGULAR1 C  US:AR003998    230 35:48 090:26(48-89) LAKE CITY               18.1
REGULAR2 C  US:AR005563    270 36:02 090:30(79-89) PARAGOULD 1 S           18.9
REGULAR3 C  US:AR000064    260 35:54 091:05(48-89) ALICIA                  19.0
**********************************************************************
* GPS SITE:  4/053059      N35:30:00 W094:24:00 ELEV:  522, 1976
**********************************************************************
FIRST O. F  US:AR002574    450 35:20 094:22( 1-89) FORT SMITH WSO AP       11.7
ACTIVE   C  US:OK007862    530 35:29 094:46(48-89) SALLISAW 2 NE           20.7
REGULAR1 C  US:AR002578    790 35:39 094:09(48-85) FORT SMITH WATER PLAN    17.5
REGULAR2 C  US:OK008506   1080 35:50 094:37(48-89) STILWELL 1 NE           26.0
REGULAR3 C  US:AR005508    490 35:30 093:51(30-89) OZARK                   31.0
```

```
**********************************************************************
* GPS SITE:  2/053071      N36:10:00 W094:10:00 ELEV: 1311, 1988
**********************************************************************
FIRST O. F  US:AR003165   1370 36:16 093:09(61-89) HARRISON FAA AP          57.2
ACTIVE   C  US:AR002444   1270 36:06 094:10( 1-89) FAYETTEVILLE EXP STN     4.6
REGULAR1 C  US:AR000586   1300 36:21 094:13(48-89) BENTONVILLE              13.0
REGULAR2 C  US:AR002930   1260 36:26 094:27(48-89) GRAVETTE                 24.3
REGULAR3 C  US:AR003544   1780 36:04 093:45(83-89) HUNTSVILLE 1 SSW         24.3
**********************************************************************
* GPS SITE: 7B/053073      N34:48:00 W092:12:00 ELEV:  264, 1965
**********************************************************************
FIRST O. F  US:AR004248    260 34:44 092:14( 1-89) LITTLE ROCK FAA AP        5.0
ACTIVE   C  US:AR005320    560 34:50 092:16(76-89) N LITTLE ROCK WSFO AP     4.4
REGULAR1 C  US:AR001102    280 34:57 092:05(18-89) CABOT 4 SW               12.3
REGULAR2 C  US:AR003862    230 34:36 092:00(48-89) KEO                      17.9
REGULAR3 C  US:AR001596    330 35:06 092:27( 1-89) CONWAY                   25.1
**********************************************************************
* GPS SITE: 7B/053074      N35:00:00 W090:50:00 ELEV:  224, 1978
**********************************************************************
FIRST O. F  US:TN005954    270 35:03 090:00(40-89) MEMPHIS FAA-AP           47.3
ACTIVE   C  US:AR008052    260 35:15 090:48(48-89) WYNNE                    17.4
REGULAR1 C  US:AR004638    230 34:44 090:46( 1-89) MARIANNA 2 S             18.8
REGULAR2 C  US:AR000936    200 34:53 091:11(48-89) BRINKLEY                 21.4
REGULAR3 C  US:AR000536    220 35:26 091:06(48-89) BEEDEVILLE               33.5
**********************************************************************
* GPS SITE:  4/054019      N34:12:00 W092:00:00 ELEV:  212, 1975
**********************************************************************
FIRST O. F  US:AR004248    260 34:44 092:14( 1-89) LITTLE ROCK FAA AP       39.2
ACTIVE   C  US:AR005754    220 34:13 092:01( 1-89) PINE BLUFF                1.5
REGULAR1 C  US:AR006823    250 33:56 091:50(64-89) STAR CITY                20.7
REGULAR2 C  US:AR006562    250 34:18 092:24(77-89) SHERIDAN                 23.9
REGULAR3 C  US:AR003862    230 34:36 092:00(48-89) KEO                      27.6
**********************************************************************
* GPS SITE:  4/054021      N35:03:00 W092:00:00 ELEV:  273, 1970
**********************************************************************
FIRST O. F  US:AR004248    260 34:44 092:14( 1-89) LITTLE ROCK FAA AP       25.6
ACTIVE   C  US:AR001102    280 34:57 092:05(18-89) CABOT 4 SW                8.4
REGULAR1 C  US:AR006506    250 35:15 091:45(30-89) SEARCY                   19.8
REGULAR2 C  US:AR005320    560 34:50 092:16(76-89) N LITTLE ROCK WSFO AP    21.3
REGULAR3 C  US:AR002962    330 35:14 092:22(48-89) GREENBRIER               24.3
**********************************************************************
* GPS SITE:  4/054023      N35:15:00 W091:45:00 ELEV:  228, 1975
**********************************************************************
FIRST O. F  US:AR004248    260 34:44 092:14( 1-89) LITTLE ROCK FAA AP       45.0
ACTIVE   C  US:AR006506    250 35:15 091:45(30-89) SEARCY                    0.0
REGULAR1 C  US:AR002978    530 35:31 092:00(60-89) GREERS FERRY DAM         23.2
REGULAR2 C  US:AR001968    200 34:58 091:30(48-89) DES ARC                  24.1
REGULAR3 C  US:AR001102    280 34:57 092:05(18-89) CABOT 4 SW               28.0
**********************************************************************
* GPS SITE:  4/054046      N35:51:00 W090:45:00 ELEV:  286, 1979
**********************************************************************
FIRST O. F  US:TN005954    270 35:03 090:00(40-89) MEMPHIS FAA-AP           69.6
ACTIVE   C  US:AR003734    390 35:53 090:42( 1-89) JONESBORO 4 N             3.6
REGULAR1 C  US:AR005563    270 36:02 090:30(79-89) PARAGOULD 1 S            18.9
REGULAR2 C  US:AR000064    260 35:54 091:05(48-89) ALICIA                   19.0
REGULAR3 C  US:AR005820    330 36:16 090:59(48-89) POCAHONTAS 1             31.6
**********************************************************************
* GPS SITE:  5/055803      N34:48:00 W092:12:00 ELEV:  383, 1973
**********************************************************************
FIRST O. F  US:AR004248    260 34:44 092:14( 1-89) LITTLE ROCK FAA AP        5.0
ACTIVE   C  US:AR005320    560 34:50 092:16(76-89) N LITTLE ROCK WSFO AP     4.4
REGULAR1 C  US:AR001102    280 34:57 092:05(18-89) CABOT 4 SW               12.3
REGULAR2 C  US:AR003862    230 34:36 092:00(48-89) KEO                      17.9
REGULAR3 C  US:AR001596    330 35:06 092:27( 1-89) CONWAY                   25.1
**********************************************************************
* GPS SITE:  5/055805      N34:48:00 W092:12:00 ELEV:  305, 1975
**********************************************************************
FIRST O. F  US:AR004248    260 34:44 092:14( 1-89) LITTLE ROCK FAA AP        5.0
ACTIVE   C  US:AR005320    560 34:50 092:16(76-89) N LITTLE ROCK WSFO AP     4.4
REGULAR1 C  US:AR001102    280 34:57 092:05(18-89) CABOT 4 SW               12.3
REGULAR2 C  US:AR003862    230 34:36 092:00(48-89) KEO                      17.9
REGULAR3 C  US:AR001596    330 35:06 092:27( 1-89) CONWAY                   25.1
```

```
*****************************************************************
* GPS SITE:  1/061253      N39:46:22 W121:43:55 ELEV: 1183, 1970
*****************************************************************
FIRST O. F  US:CA007630     20 38:31 121:30(41-89) SACRAMENTO FAA AP        87.6  REJECTED
ACTIVE   C  US:CA006685   1750 39:45 121:37(57-89) PARADISE                  6.3
REGULAR1 C  US:CA001715    190 39:42 121:49( 6-89) CHICO UNIV FARM           6.8
REGULAR2 C  US:CA002402   2720 39:52 121:37(48-89) DE SABLA                 8.9
REGULAR3 C  US:CA006521    170 39:31 121:33(53-89) OROVILLE                 20.2
*****************************************************************
* GPS SITE:  2/062002      N41:37:25 W122:24:27 ELEV: 5000, 1980
*****************************************************************
FIRST O. F  US:OR005429   1300 42:23 122:53(28-89) MEDFORD WSO AP          57.9  REJECTED
ACTIVE   C  US:CA009499   3590 41:26 122:23(57-89) WEED FIRE DEPARTMENT    13.2
REGULAR1 C  US:CA009866   2630 41:43 122:38(48-89) YREKA                   13.3
REGULAR2 C  US:CA005983   3590 41:19 122:19(48-89) MOUNT SHASTA            21.7  REJECTED
REGULAR3 C  US:CA005941   4250 41:47 122:02(48-89) MOUNT HEBRON R S        22.2
*****************************************************************
* GPS SITE:  2/062004      N33:30:52 W117:09:24 ELEV: 1030, 1976
*****************************************************************
FIRST O. F  US:CA008892        33:38 116:10(50-89) THERMAL FAA AP          57.6
ACTIVE   C  US:CA008655   1420 33:43 117:12(73-89) SUN CITY                14.2
REGULAR1 C  US:CA002805   1290 33:40 117:20(48-89) ELSINORE                14.6
REGULAR2 C  US:CA009378    510 33:14 117:14(57-89) VISTA 2 NNE             19.9
REGULAR3 C  US:CA006657   5550 33:21 116:52(48-89) PALOMAR MTN OBSY        20.2  REJECTED
*****************************************************************
* GPS SITE:  2/062038      N41:47:38 W124:09:25 ELEV:   41, 1972
*****************************************************************
FIRST O. F  US:OR007698   3840 42:37 123:22(48-89) SEXTON SUMMIT WSO        69.8  REJECTED
ACTIVE   C  US:CA002147     40 41:46 124:12(48-89) CRESCENT CITY 1 N        2.9
REGULAR1 C  US:OR001055     70 42:03 124:17(31-89) BROOKINGS                18.8
REGULAR2 C  US:CA004577     30 41:31 124:02(48-89) KLAMATH                  20.2
REGULAR3 C  US:CA006498    160 41:22 124:01(48-89) ORICK PRAIRIE CR PARK    30.4
*****************************************************************
* GPS SITE:  2/062040      N40:27:30 W124:04:11 ELEV:  115, 1979
*****************************************************************
FIRST O. F  US:OR005429   1300 42:23 122:53(28-89) MEDFORD WSO AP          146.5  REJECTED
ACTIVE   C  US:CA008045    140 40:29 124:06(31-89) SCOTIA                   2.3
REGULAR1 C  US:CA003647    410 40:29 123:54(79-89) GRIZZLY CREEK STATE P     9.1
REGULAR2 C  US:CA002910     60 40:48 124:10(48-89) EUREKA WSO CI            24.1
REGULAR3 C  US:CA008163    420 40:01 124:04(74-89) SHELTER COVE AVIATION    30.5
*****************************************************************
* GPS SITE:  2/062041      N40:27:15 W124:03:16 ELEV:  150, 1971
*****************************************************************
FIRST O. F  US:OR005429   1300 42:23 122:53(28-89) MEDFORD WSO AP          146.4  REJECTED
ACTIVE   C  US:CA008045    140 40:29 124:06(31-89) SCOTIA                   3.1
REGULAR1 C  US:CA003647    410 40:29 123:54(79-89) GRIZZLY CREEK STATE P     8.4
REGULAR2 C  US:CA002910     60 40:48 124:10(48-89) EUREKA WSO CI            24.6
REGULAR3 C  US:CA008163    420 40:01 124:04(74-89) SHELTER COVE AVIATION    30.2
*****************************************************************
* GPS SITE:  2/062051      N38:16:00 W122:17:50 ELEV:    8, 1981
*****************************************************************
FIRST O. F  US:CA007630     20 38:31 121:30(41-89) SACRAMENTO FAA AP        46.5  REJECTED
ACTIVE   C  US:CA006074     60 38:17 122:16(17-89) NAPA STATE HOSPITAL       2.0
REGULAR1 C  US:CA008351    100 38:18 122:28(52-89) SONOMA                    9.5
REGULAR2 C  US:CA002934     40 38:16 122:02(50-89) FAIRFIELD FIRE STN       14.3
REGULAR3 C  US:CA006826     30 38:14 122:38(48-89) PETALUMA FIRE STN 3      18.4
*****************************************************************
* GPS SITE:  2/062053      N37:27:15 W122:16:50 ELEV:  500, 1973
*****************************************************************
FIRST O. F  US:CA007630     20 38:31 121:30(41-89) SACRAMENTO FAA AP        84.8  REJECTED
ACTIVE   C  US:CA009792    380 37:26 122:15(73-89) WOODSIDE FIRE DEPT 1      2.2
REGULAR1 C  US:CA007339     30 37:29 122:14(48-89) REDWOOD CITY              3.3
REGULAR2 C  US:CA006646     30 37:27 122:08(53-89) PALO ALTO                 8.1
REGULAR3 C  US:CA003714     40 37:28 122:27(48-89) HALF MOON BAY             9.3
*****************************************************************
* GPS SITE:  2/062647      N37:50:45 W120:33:47 ELEV: 1039, 1976
*****************************************************************
FIRST O. F  US:CA007630     20 38:31 121:30(41-89) SACRAMENTO FAA AP        68.9  REJECTED
ACTIVE   C  US:CA006172    780 37:57 120:32(79-89) NEW MELONES DAM           7.4
REGULAR1 C  US:CA008353   1750 37:50 120:23(31-89) SONORA R S               9.9
REGULAR2 C  US:CA002389    140 37:34 120:47(48-84) DENAIR 3 NNE            22.7
REGULAR3 C  US:CA005738     90 37:39 121:00(31-89) MODESTO                 27.5
```

```
**********************************************************************
* GPS SITE:  3/063005      N41:10:19 W122:09:12 ELEV: 1230, 1973
**********************************************************************
FIRST O. F  US:OR005429   1300 42:23 122:53(28-89) MEDFORD WSO AP          91.7  REJECTED
ACTIVE   C  US:CA005449   3280 41:15 122:08(48-89) MC CLOUD                5.5
REGULAR1 C  US:CA002574   2170 41:12 122:16(78-89) DUNSMUIR TRTMT PLANT     6.2
REGULAR2 C  US:CA005983   3590 41:19 122:19(48-89) MOUNT SHASTA            13.1
REGULAR3 C  US:CA009499   3590 41:26 122:23(57-89) WEED FIRE DEPARTMENT    21.6
**********************************************************************
* GPS SITE:  3/063010      N32:54:47 W117:06:55 ELEV:  527, 1976
**********************************************************************
FIRST O. F  US:CA006319   2750 33:23 116:48(78-89) OAK GROVE R S           37.3  REJECTED
ACTIVE   C  US:CA002706    410 32:49 116:58(79-89) EL CAJON                10.9
REGULAR1 C  US:CA004735    530 32:46 117:01(48-89) LA MESA                 11.6
REGULAR2 C  US:CA007740     10 32:44 117:10(27-89) SAN DIEGO WSO AP        12.8
REGULAR3 C  US:CA007874    420 33:05 117:00(79-89) SAN PASQUAL ANIMAL PK   13.5
**********************************************************************
* GPS SITE:  3/063013      N33:40:10 W117:18:11 ELEV: 1400, 1981
**********************************************************************
FIRST O. F  US:CA006319   2750 33:23 116:48(78-89) OAK GROVE R S           35.1  REJECTED
ACTIVE   C  US:CA002805   1290 33:40 117:20(48-89) ELSINORE                1.8
REGULAR1 C  US:CA008655   1420 33:43 117:12(73-89) SUN CITY                6.8
REGULAR2 C  US:CA007470    840 33:57 117:23(27-89) RIVERSIDE FIRE STN 3    19.9
REGULAR3 C  US:CA007473    990 33:58 117:21(48-89) RIVERSIDE CIT EXP STN   20.7
**********************************************************************
* GPS SITE:  3/063017      N34:11:42 W118:13:17 ELEV: 1261, 1978
**********************************************************************
FIRST O. F  US:CA005085     30 33:49 118:09(58-89) LONG BEACH WSO AP       26.4
ACTIVE   C  US:CA006719    860 34:09 118:09(27-89) PASADENA                5.1
REGULAR1 C  US:CA009047   1820 34:16 118:17(66-87) TUJUNGA                 6.1
REGULAR2 C  US:CA001194    660 34:11 118:21(39-89) BURBANK VALLEY PMP PL   7.4
REGULAR3 C  US:CA006006   5710 34:14 118:04(48-89) MT WILSON 2             9.2  REJECTED
**********************************************************************
* GPS SITE:  3/063019      N33:35:11 W117:14:02 ELEV: 1310, 1979
**********************************************************************
FIRST O. F  US:CA005085     30 33:49 118:09(58-89) LONG BEACH WSO AP       55.1  REJECTED
ACTIVE   C  US:CA002805   1290 33:40 117:20(48-89) ELSINORE                8.0
REGULAR1 C  US:CA008655   1420 33:43 117:12(73-89) SUN CITY                9.2
REGULAR2 C  US:CA007813   1560 33:47 116:58(48-89) SAN JACINTO R S        20.5
REGULAR3 C  US:CA009378    510 33:14 117:14(57-89) VISTA 2 NNE             24.4
**********************************************************************
* GPS SITE:  3/063021      N32:43:05 W116:27:35 ELEV: 3260, 1973
**********************************************************************
FIRST O. F  US:CA008892        33:38 116:10(50-89) THERMAL FAA AP          65.4  REJECTED
ACTIVE   C  US:CA001424   2630 32:38 116:28(48-89) CAMPO                   5.9
REGULAR1 C  US:CA000136   1740 32:50 116:46(52-89) ALPINE                 19.5  REJECTED
REGULAR2 C  US:CA002239   4640 32:59 116:35(48-89) CUYAMACA               19.7
REGULAR3 C  US:CA002709    600 32:53 116:49(48-89) EL CAPITAN DAM          23.7  REJECTED
**********************************************************************
* GPS SITE:  3/063024      N33:41:54 W117:20:38 ELEV: 1250, 1980
**********************************************************************
FIRST O. F  US:CA005085     30 33:49 118:09(58-89) LONG BEACH WSO AP       47.1  REJECTED
ACTIVE   C  US:CA002805   1290 33:40 117:20(48-89) ELSINORE                2.3
REGULAR1 C  US:CA008655   1420 33:43 117:12(73-89) SUN CITY                8.4
REGULAR2 C  US:CA007470    840 33:57 117:23(27-89) RIVERSIDE FIRE STN 3    17.5
REGULAR3 C  US:CA007473    990 33:58 117:21(48-89) RIVERSIDE CIT EXP STN   18.5
**********************************************************************
* GPS SITE:  3/063030      N40:09:59 W122:23:16 ELEV: 1217, 1972
**********************************************************************
FIRST O. F  US:CA007630     20 38:31 121:30(41-89) SACRAMENTO FAA AP      123.4  REJECTED
ACTIVE   C  US:CA007292    340 40:09 122:15(33-89) RED BLUFF WSO AP        7.4
REGULAR1 C  US:CA006506    250 39:45 122:12(48-89) ORLAND                 30.4
REGULAR2 C  US:CA009621   1300 40:37 122:32(60-89) WHISKEYTOWN RESERVOIR  32.0
REGULAR3 C  US:CA003791   2750 40:22 122:58(48-89) HARRISON GULCH R S     33.5
**********************************************************************
* GPS SITE:  3/063042      N38:14:17 W121:26:15 ELEV:   11, 1979
**********************************************************************
FIRST O. F  US:CA007630     20 38:31 121:30(41-89) SACRAMENTO FAA AP       19.5
ACTIVE   C  US:CA005032     40 38:07 121:17(48-89) LODI                    11.9
REGULAR1 C  US:CA008560     10 38:00 121:19(48-89) STOCKTON FIRE STN 4     17.7
REGULAR2 C  US:CA000232     60 37:59 121:44(55-89) ANTIOCH PUMP PLANT 3    23.8
REGULAR3 C  US:CA007633     80 38:35 121:30( 1-89) SACRAMENTO WSO CI       24.1
```

```
*********************************************************************
* GPS SITE: 6A/066044      N39:10:44 W121:03:08 ELEV: 2433, 1960
*********************************************************************
FIRST O. F  US:CA007630     20 38:31 121:30(41-89) SACRAMENTO FAA AP      51.7  REJECTED
ACTIVE    C  US:CA003573   2400 39:13 121:04(66-89) GRASS VALLEY 2         2.7
REGULAR1 C  US:CA006136   2780 39:15 121:02(31-89) NEVADA CITY           5.0
REGULAR2 C  US:CA001912   2410 39:06 120:57(48-89) COLFAX                7.7
REGULAR3 C  US:CA002338   4460 39:18 120:50(69-89) DEER CREEK FOREBAY     14.4
*********************************************************************
* GPS SITE:  2/067452      N39:04:41 W122:54:57 ELEV: 1330, 1972
*********************************************************************
FIRST O. F  US:CA007630     20 38:31 121:30(41-89) SACRAMENTO FAA AP      85.6  REJECTED
ACTIVE    C  US:CA004701   1320 39:02 122:55(41-89) LAKEPORT             3.1
REGULAR1 C  US:CA009122    630 39:09 123:12( 6-89) UKIAH                16.0
REGULAR2 C  US:CA001838    320 38:46 122:59(50-89) CLOVERDALE 3 SSE     21.8
REGULAR3 C  US:CA007109   1020 39:22 123:08(48-89) POTTER VALLEY P H     23.1
*********************************************************************
* GPS SITE:  1/067454      N37:56:45 W120:49:24 ELEV:  846, 1972
*********************************************************************
FIRST O. F  US:CA007630     20 38:31 121:30(41-89) SACRAMENTO FAA AP      56.6  REJECTED
ACTIVE    C  US:CA006172    780 37:57 120:32(79-89) NEW MELONES DAM       16.3
REGULAR1 C  US:CA005738     90 37:39 121:00(31-89) MODESTO               19.4
REGULAR2 C  US:CA002389    140 37:34 120:47(48-84) DENAIR 3 NNE          22.7
REGULAR3 C  US:CA008558     20 37:54 121:15(48-89) STOCKTON WSO AP       23.3
*********************************************************************
* GPS SITE:  5/067455      N37:42:45 W121:20:45 ELEV:   52, 1971
*********************************************************************
FIRST O. F  US:CA007630     20 38:31 121:30(41-89) SACRAMENTO FAA AP      56.2  REJECTED
ACTIVE    C  US:CA008999    140 37:42 121:25(49-89) TRACY CARBONA          4.0
REGULAR1 C  US:CA008558     20 37:54 121:15(48-89) STOCKTON WSO AP       14.0
REGULAR2 C  US:CA009001     60 37:48 121:35(55-89) TRACY PUMPING PLANT   14.3
REGULAR3 C  US:CA005738     90 37:39 121:00(31-89) MODESTO               19.4
*********************************************************************
* GPS SITE:  3/067456      N37:43:30 W121:20:45 ELEV:   45, 1971
*********************************************************************
FIRST O. F  US:CA007630     20 38:31 121:30(41-89) SACRAMENTO FAA AP      55.3  REJECTED
ACTIVE    C  US:CA008999    140 37:42 121:25(49-89) TRACY CARBONA          4.2
REGULAR1 C  US:CA008558     20 37:54 121:15(48-89) STOCKTON WSO AP       13.2
REGULAR2 C  US:CA009001     60 37:48 121:35(55-89) TRACY PUMPING PLANT   14.0
REGULAR3 C  US:CA008560     10 38:00 121:19(48-89) STOCKTON FIRE STN 4   19.1
*********************************************************************
* GPS SITE:  2/067491      N34:53:27 W114:43:12 ELEV:  950, 1973
*********************************************************************
FIRST O. F  US:NV004436   2160 36:05 115:10(49-89) LAS VEGAS WSO AP      86.1  REJECTED
ACTIVE    C  US:CA006118    910 34:46 114:37(48-89) NEEDLES FAA AP       10.4
REGULAR1 C  US:AZ001050    540 35:10 114:34(77-89) BULLHEAD CITY        20.9
REGULAR2 C  US:AZ009645   1950 34:53 114:08(50-89) YUCCA 1 NNE          33.3
REGULAR3 C  US:AZ004759    480 34:27 114:22(67-89) LAKE HAVASU          36.5
*********************************************************************
* GPS SITE:  3/067493      N33:22:54 W117:10:21 ELEV:  725, 1979
*********************************************************************
FIRST O. F  US:CA006319   2750 33:23 116:48(78-89) OAK GROVE R S         21.5  REJECTED
ACTIVE    C  US:CA009378    510 33:14 117:14(57-89) VISTA 2 NNE          10.8
REGULAR1 C  US:CA006377     10 33:13 117:24(53-89) OCEANSIDE MARINA     17.4
REGULAR2 C  US:CA006657   5550 33:21 116:52(48-89) PALOMAR MTN OBSY      17.8
REGULAR3 C  US:CA002863    600 33:07 117:05(79-89) ESCONDIDO 2          19.0
*********************************************************************
* GPS SITE:  2/068149      N34:51:20 W114:53:31 ELEV: 2100, 1971
*********************************************************************
FIRST O. F  US:NV004436   2160 36:05 115:10(49-89) LAS VEGAS WSO AP      86.2  REJECTED
ACTIVE    C  US:CA006118    910 34:46 114:37(48-89) NEEDLES FAA AP       16.8
REGULAR1 C  US:AZ001050    540 35:10 114:34(77-89) BULLHEAD CITY        28.3
REGULAR2 C  US:CA005721   4350 34:56 115:32(58-89) MITCHELL CAVERNS      36.8
REGULAR3 C  US:AZ004759    480 34:27 114:22(67-89) LAKE HAVASU          40.9  REJECTED
*********************************************************************
* GPS SITE:  2/068150      N34:05:31 W117:12:00 ELEV: 1250, 1984
*********************************************************************
FIRST O. F  US:CA005085     30 33:49 118:09(58-89) LONG BEACH WSO AP     47.2
ACTIVE    C  US:CA007473    990 33:58 117:21(48-89) RIVERSIDE CIT EXP STN  6.6
REGULAR1 C  US:CA007470    840 33:57 117:23(27-89) RIVERSIDE FIRE STN 3   7.5
REGULAR2 C  US:CA007723   1130 34:08 117:16(27-89) SAN BERNARDINO CO HOS  8.3
REGULAR3 C  US:CA007306   1320 34:03 117:11(27-89) REDLANDS              11.3
```

```
*********************************************************************
* GPS SITE:  2/068151      N34:43:38 W115:33:15 ELEV:  830, 1973
*********************************************************************
FIRST O. F  US:CA008892         33:38 116:10(50-89) THERMAL FAA AP          83.3  REJECTED
ACTIVE   C  US:CA005721   4350 34:56 115:32(58-89) MITCHELL CAVERNS        14.3
REGULAR1 C  US:CA000436    940 35:16 116:04(71-89) BAKER                   47.2  REJECTED
REGULAR2 C  US:CA004297    920 34:08 115:08(48-89) IRON MTN                47.5  REJECTED
REGULAR3 C  US:CA009099   1980 34:08 116:02(48-89) TWENTYNINE PALMS        49.3  REJECTED
*********************************************************************
* GPS SITE:  1/068153      N35:12:42 W120:36:55 ELEV:  252, 1977
*********************************************************************
FIRST O. F  US:CA007946    250 34:54 120:27(48-89) SANTA MARIA WSO AP       23.6
ACTIVE   C  US:CA006943     80 35:08 120:38(49-89) PISMO BEACH               5.0
REGULAR1 C  US:CA007851    320 35:18 120:40(48-89) SAN LUIS OBISPO POLY      6.7
REGULAR2 C  US:CA005866    120 35:22 120:51(59-89) MORRO BAY FIRE DEPT      16.4
REGULAR3 C  US:CA009111    580 34:59 120:19(62-89) TWITCHELL DAM            23.7  REJECTED
*********************************************************************
* GPS SITE:  1/068156      N35:05:00 W120:09:00 ELEV: 1084, 1974
*********************************************************************
FIRST O. F  US:CA007946    250 34:54 120:27(48-89) SANTA MARIA WSO AP       22.4  REJECTED
ACTIVE   C  US:CA009111    580 34:59 120:19(62-89) TWITCHELL DAM            13.0
REGULAR1 C  US:CA006154   2160 34:57 119:41(74-89) NEW CUYAMA FIRE STN      25.8
REGULAR2 C  US:CA006943     80 35:08 120:38(49-89) PISMO BEACH              29.7
REGULAR3 C  US:CA001253    780 34:35 119:59(52-89) CACHUMA DAM              34.4  REJECTED
*********************************************************************
* GPS SITE:  2/068201      N35:23:50 W118:53:50 ELEV:  724, 1971
*********************************************************************
FIRST O. F  US:CA007946    250 34:54 120:27(48-89) SANTA MARIA WSO AP       94.3  REJECTED
ACTIVE   C  US:CA004520    970 35:28 118:47(48-89) KERN RIVER P H 1          8.0
REGULAR1 C  US:CA000442    500 35:25 119:03(37-89) BAKERSFIELD WSO AP        8.7
REGULAR2 C  US:CA003463   3140 35:43 118:42(51-89) GLENNVILLE              24.7  REJECTED
REGULAR3 C  US:CA008839   1430 35:02 118:45(48-89) TEJON RANCHO             26.5
*********************************************************************
* GPS SITE:  2/068202      N36:14:52 W119:48:48 ELEV:  208, 1970
*********************************************************************
FIRST O. F  US:CA007946    250 34:54 120:27(48-89) SANTA MARIA WSO AP       99.7  REJECTED
ACTIVE   C  US:CA003747    250 36:18 119:39(27-89) HANFORD 1 S               9.8
REGULAR1 C  US:CA002012    200 36:06 119:34(48-89) CORCORAN IRRIG DIST O    17.1
REGULAR2 C  US:CA004536    510 36:04 120:05(48-89) KETTLEMAN STN            19.6
REGULAR3 C  US:CA003083    290 36:22 120:09(48-89) FIVE POINTS 5 SSW        20.5
*********************************************************************
* GPS SITE: 68/068534      N32:46:31 W115:45:59 ELEV:  -36, 1970
*********************************************************************
FIRST O. F  US:CA008892         33:38 116:10(50-89) THERMAL FAA AP          63.6
ACTIVE   C  US:CA002713         32:46 115:34(48-89) EL CENTRO 2 SSW         11.6
REGULAR1 C  US:CA004223         32:51 115:34(48-89) IMPERIAL                12.7
REGULAR2 C  US:CA001048         32:57 115:33(27-89) BRAWLEY 2 SW            17.4
REGULAR3 C  US:CA001424   2630 32:38 116:28(48-89) CAMPO                     41.9  REJECTED
*********************************************************************
* GPS SITE: 68/068535      N32:01:26 W115:31:00 ELEV:  -36, 1967
*********************************************************************
FIRST O. F  US:CA008892         33:38 116:10(50-89) THERMAL FAA AP         117.4
ACTIVE   C  US:CA002713         32:46 115:34(48-89) EL CENTRO 2 SSW         51.4
REGULAR1 C  US:CA004223         32:51 115:34(48-89) IMPERIAL                57.1
REGULAR2 C  US:CA001048         32:57 115:33(27-89) BRAWLEY 2 SW            64.0
REGULAR3 C  US:AZ009652    190 32:37 114:39(20-89) YUMA CITRUS STN          65.1  REJECTED
*********************************************************************
* GPS SITE:  9/069048      N32:50:19 W116:41:43 ELEV: 2510, 1951
*********************************************************************
FIRST O. F  US:CA008892         33:38 116:10(50-89) THERMAL FAA AP          62.8  REJECTED
ACTIVE   C  US:CA000136   1740 32:50 116:46(52-89) ALPINE                    4.2
REGULAR1 C  US:CA002709    600 32:53 116:49(48-89) EL CAPITAN DAM            7.7
REGULAR2 C  US:CA000514   1620 32:41 116:40(48-80) BARRETT DAM              10.9
REGULAR3 C  US:CA002239   4640 32:59 116:35(48-89) CUYAMACA                 11.9
*********************************************************************
* GPS SITE:  9/069049      N38:34:32 W121:33:41 ELEV:   13, 1954
*********************************************************************
FIRST O. F  US:CA007630     20 38:31 121:30(41-89) SACRAMENTO FAA AP         5.3
ACTIVE   C  US:CA007633     80 38:35 121:30( 1-89) SACRAMENTO WSO CI         3.4
REGULAR1 C  US:CA001784     10 38:25 121:32(48-74) CLARKSBURG                11.1
REGULAR2 C  US:CA002294     60 38:32 121:46(17-89) DAVIS 2 WSW EXP FRM       11.5
REGULAR3 C  US:CA009781     70 38:41 121:48(48-89) WOODLAND 1 WNW            14.9
```

```
*********************************************************************
* GPS SITE:  9/069107      N39:14:07 W120:43:17 ELEV: 5641, 1964
*********************************************************************
FIRST O. F  US:NV006779   4400 39:30 119:47(37-89) RENO WSFO AP            53.4  REJECTED
ACTIVE   C  US:CA004713   5160 39:19 120:38(48-89) LAKE SPAULDING           7.3
REGULAR1 C  US:CA000897   5280 39:17 120:42(48-88) BLUE CANYON WSMO         3.5
REGULAR2 C  US:CA002338   4460 39:18 120:50(69-89) DEER CREEK FOREBAY       7.5
REGULAR3 C  US:CA001018   5370 39:27 120:39(48-89) BOWMAN DAM              15.3
*********************************************************************
* GPS SITE:  1/081029      N40:31:30 W107:55:00 ELEV: 5920, 1972
*********************************************************************
FIRST O. F  US:UT002173   4770 40:26 109:18(58-89) DINOSAUR QUARRY AREA    73.1  REJECTED
ACTIVE   C  US:CO005446   5910 40:31 108:05(58-89) MAYBELL                  8.8
REGULAR1 C  US:CO001932   6440 40:27 107:36(77-89) CRAIG 4 SW              17.4
REGULAR2 C  US:CO005487   6350 40:02 107:55(70-89) MEEKER 2                34.0
REGULAR3 C  US:CO003867   6380 40:29 107:15(48-89) HAYDEN                  35.2
*********************************************************************
* GPS SITE:  1/081047      N40:05:55 W108:49:55 ELEV: 5260, 1983
*********************************************************************
FIRST O. F  US:CO003488   4850 39:06 108:33( 1-89) GRAND JUNCTION WSO AP   70.6
ACTIVE   C  US:CO006832   5290 40:05 108:46(50-89) RANGELY 1 E             3.6
REGULAR1 C  US:CO002286   5920 40:14 108:58(65-89) DINOSAUR NATL MONUMEN   11.7
REGULAR2 C  US:UT000802   5450 40:01 109:11(48-89) BONANZA                 19.4
REGULAR3 C  US:CO005422   6190 40:17 108:30(86-89) MASSADONA 3 E           21.7
*********************************************************************
* GPS SITE:  1/081053      N38:42:05 W108:01:55 ELEV: 5140, 1984
*********************************************************************
FIRST O. F  US:CO003488   4850 39:06 108:33( 1-89) GRAND JUNCTION WSO AP   39.2
ACTIVE   C  US:CO002192   4930 38:45 108:04( 1-89) DELTA                    3.8
REGULAR1 C  US:CO001440   6240 38:54 107:56(48-89) CEDAREDGE               14.7
REGULAR2 C  US:CO005722   5830 38:29 107:53( 1-89) MONTROSE 2              17.1
REGULAR3 C  US:CO006306   5580 38:52 107:36( 5-89) PAONIA 1 SW             25.9
*********************************************************************
* GPS SITE:  1/081057      N39:04:15 W108:27:30 ELEV: 4586, 1986
*********************************************************************
FIRST O. F  US:CO003488   4850 39:06 108:33( 1-89) GRAND JUNCTION WSO AP    5.3
ACTIVE   C  US:CO003489   4760 39:03 108:27(62-89) GRAND JUNCTION 6 ESE     1.5
REGULAR1 C  US:CO006266   4800 39:07 108:21(48-89) PALISADE                 6.6
REGULAR2 C  US:CO001772   5780 39:06 108:44(48-89) COLORADO NAT MON         14.9
REGULAR3 C  US:CO003146   4480 39:10 108:45(48-89) FRUITA 1 W               17.0
*********************************************************************
* GPS SITE:  2/082008      N38:05:20 W103:11:15 ELEV: 3894, 1972
*********************************************************************
FIRST O. F  US:CO004720   4200 38:03 103:31(45-89) LA JUNTA FAA AP          18.1
ACTIVE   C  US:CO004834   3890 38:04 103:13(30-89) LAS ANIMAS               2.2
REGULAR1 C  US:CO004388   3810 38:04 102:55(41-89) JOHN MARTIN DAM          14.8
REGULAR2 C  US:CO007167   4170 38:02 103:42(18-89) ROCKY FORD 2 SE          28.2
REGULAR3 C  US:CO004770   3620 38:05 102:37(18-89) LAMAR                    31.1
*********************************************************************
* GPS SITE:  3/083032      N39:31:10 W107:50:00 ELEV: 5345, 1977
*********************************************************************
FIRST O. F  US:CO003488   4850 39:06 108:33( 1-89) GRAND JUNCTION WSO AP   48.1
ACTIVE   C  US:CO007031   5320 39:32 107:48(10-89) RIFLE                    2.0
REGULAR1 C  US:CO001741   5980 39:15 107:58( 1-89) COLLBRAN                19.9
REGULAR2 C  US:CO003359   5820 39:34 107:20( 1-89) GLENWOOD SPRINGS 1 N     26.9
REGULAR3 C  US:CO000214   5690 39:30 108:23(48-89) ALTENBERN               29.4
*********************************************************************
* GPS SITE: 6A/086002      N38:22:50 W104:37:10 ELEV: 4904, 1964
*********************************************************************
FIRST O. F  US:CO004720   4200 38:03 103:31(45-89) LA JUNTA FAA AP          64.1
ACTIVE   C  US:CO006740   4640 38:17 104:31(54-89) PUEBLO WSO AP            8.7
REGULAR1 C  US:CO008157   4960 38:23 104:04(55-89) TACONY 10 SE             30.0
REGULAR2 C  US:CO001778   6090 38:49 104:43(48-89) COLORADO SPRGS WSO AP    30.6  REJECTED
REGULAR3 C  US:CO001294   5360 38:25 105:13(48-89) CANON CITY               32.5
*********************************************************************
* GPS SITE: 6A/086013      N40:37:30 W103:14:05 ELEV: 3935, 1965
*********************************************************************
FIRST O. F  US:CO000114   4660 40:10 103:13(37-89) AKRON FAA AP            31.7
ACTIVE   C  US:CO007950   3940 40:37 103:13(48-89) STERLING                 1.1
REGULAR1 C  US:CO004945   4470 40:31 103:00(48-89) LEROY 5 WSW              14.4
REGULAR2 C  US:CO005922   4780 40:36 103:51(48-89) NEW RAYMER               32.4
REGULAR3 C  US:CO000109   4540 40:09 103:09(18-89) AKRON 4 E                33.1
```

```
**********************************************************************
* GPS SITE: 7A/087035      N39:45:15 W104:45:40 ELEV: 5500, 1965
**********************************************************************
FIRST O. F  US:CO002220   5280 39:46 104:52(48-89) DENVER WSFO AP          5.7
ACTIVE   C  US:CO001547   5650 39:39 104:51(51-89) CHERRY CREEK DAM        8.6
REGULAR1 C  US:CO006326   6310 39:32 104:39(48-89) PARKER 6 E             16.4
REGULAR2 C  US:CO000950   4980 40:00 104:49(73-89) BRIGHTON               17.2
REGULAR3 C  US:CO004762   5640 39:45 105:08(62-89) LAKEWOOD               19.8
**********************************************************************
* GPS SITE: 7A/087036      N39:44:05 W104:21:10 ELEV: 5380, 1961
**********************************************************************
FIRST O. F  US:CO002220   5280 39:46 104:52(48-89) DENVER WSFO AP          27.4
ACTIVE   C  US:CO001179   5100 39:45 104:08(48-89) BYERS 5 ENE            11.7
REGULAR1 C  US:CO006326   6310 39:32 104:39(48-89) PARKER 6 E             21.1
REGULAR2 C  US:CO001547   5650 39:39 104:51(51-89) CHERRY CREEK DAM        27.1
REGULAR3 C  US:CO000950   4980 40:00 104:49(73-89) BRIGHTON               30.7
**********************************************************************
* GPS SITE:  3/087776      N39:44:25 W104:44:25 ELEV: 5280, 1988
**********************************************************************
FIRST O. F  US:CO002220   5280 39:46 104:52(48-89) DENVER WSFO AP          7.0
ACTIVE   C  US:CO001547   5650 39:39 104:51(51-89) CHERRY CREEK DAM        8.5
REGULAR1 C  US:CO006326   6310 39:32 104:39(48-89) PARKER 6 E             15.1
REGULAR2 C  US:CO005056   5310 39:37 105:01(78-89) LITTLETON              17.0
REGULAR3 C  US:CO008995   5430 39:45 105:05(81-89) WHEAT RIDGE 2          18.3
**********************************************************************
* GPS SITE: 68/087780      N38:55:40 W104:59:50 ELEV: 7400, 1973
**********************************************************************
FIRST O. F  US:CO002220   5280 39:46 104:52(48-89) DENVER WSFO AP          58.3
ACTIVE   C  US:CO007309   9050 38:51 104:59(59-89) RUXTON PARK             5.4
REGULAR1 C  US:CO006280   7220 39:07 104:55(65-85) PALMER LAKE            13.7
REGULAR2 C  US:CO001778   6090 38:49 104:43(48-89) COLORADO SPRGS WSO AP   16.9
REGULAR3 C  US:CO001528   6880 39:13 105:17(48-89) CHEESMAN               25.2
**********************************************************************
* GPS SITE: 68/087781      N38:05:19 W103:10:55 ELEV: 3894, 1972
**********************************************************************
FIRST O. F  US:CO004720   4200 38:03 103:31(45-89) LA JUNTA FAA AP        18.4
ACTIVE   C  US:CO004834   3890 38:04 103:13(30-89) LAS ANIMAS              2.4
REGULAR1 C  US:CO004388   3810 38:04 102:55(41-89) JOHN MARTIN DAM        14.5
REGULAR2 C  US:CO007167   4170 38:02 103:42(18-89) ROCKY FORD 2 SE        28.5
REGULAR3 C  US:CO004770   3620 38:05 102:37(18-89) LAMAR                  30.8
**********************************************************************
* GPS SITE: 68/087783      N39:23:00 W108:08:20 ELEV: 5000, 1983
**********************************************************************
FIRST O. F  US:CO003488   4850 39:06 108:33( 1-89) GRAND JUNCTION WSO AP  29.5
ACTIVE   C  US:CO001741   5980 39:15 107:58( 1-89) COLLBRAN               13.0
REGULAR1 C  US:CO006311   5090 39:27 108:03(81-87) PARACHUTE               6.6
REGULAR2 C  US:CO000214   5690 39:30 108:23(48-89) ALTENBERN              15.3
REGULAR3 C  US:CO007031   5320 39:32 107:48(10-89) RIFLE                   20.9
**********************************************************************
* GPS SITE:  9/089019      N40:15:15 W104:58:45 ELEV: 4970, 1961
**********************************************************************
FIRST O. F  US:CO002220   5280 39:46 104:52(48-89) DENVER WSFO AP          34.2
ACTIVE   C  US:CO005116   4990 40:11 105:06(48-89) LONGMONT                8.0
REGULAR1 C  US:CO008839   5230 40:26 105:12(48-89) WATERDALE              17.0
REGULAR2 C  US:CO003553   4720 40:25 104:42(67-89) GREELEY UNC            18.5
REGULAR3 C  US:CO000950   4980 40:00 104:49(73-89) BRIGHTON               19.5
**********************************************************************
* GPS SITE:  9/089020      N40:28:00 W104:58:45 ELEV: 4950, 1964
**********************************************************************
FIRST O. F  US:WY001675   6120 41:09 104:49(15-89) CHEYENNE WSFO AP        47.9  REJECTED
ACTIVE   C  US:CO003005   5000 40:35 105:05( 1-89) FORT COLLINS            9.7
REGULAR1 C  US:CO008839   5230 40:26 105:12(48-89) WATERDALE              11.8
REGULAR2 C  US:CO003553   4720 40:25 104:42(67-89) GREELEY UNC            15.1
REGULAR3 C  US:CO005116   4990 40:11 105:06(48-89) LONGMONT               20.6
**********************************************************************
* GPS SITE:  1/091803      N41:23:43 W072:01:40 ELEV:  165, 1985
**********************************************************************
FIRST O. F  US:RI006698     50 41:44 071:26(48-89) PROVIDENCE WSO AP      38.6  REJECTED
ACTIVE   C  US:CT003207     40 41:21 072:03(48-89) GROTON                  3.3
REGULAR1 C  US:CT005910     20 41:32 072:04(56-89) NORWICH PUB UTIL PLAN   9.7  REJECTED
REGULAR2 C  US:CT001488    160 41:28 072:31(48-89) COCKAPONSET RANGER ST  25.8  REJECTED
REGULAR3 C  US:CT004488    250 41:45 072:11(52-89) MANSFIELD HOLLOW LAKE  25.8  REJECTED
```

```
**********************************************************************
* GPS SITE:  4/094008      N41:47:51 W072:33:30 ELEV:  155, 1986
**********************************************************************
FIRST O. F  US:RI006698     50 41:44 071:26(48-89) PROVIDENCE WSO AP        58.2  REJECTED
ACTIVE   C  US:CT003451     20 41:44 072:39(20-89) HARTFORD BRAINARD FLD     6.5
REGULAR1 C  US:CT001689    480 41:48 072:21(57-89) COVENTRY                 10.7
REGULAR2 C  US:CT003456    160 41:56 072:41(54-89) HARTFORD WSO AP          11.4
REGULAR3 C  US:CT008138    650 41:48 072:15( 1-89) STORRS                   15.9
**********************************************************************
* GPS SITE:  4/094020      N41:42:04 W072:34:02 ELEV:  201, 1964
**********************************************************************
FIRST O. F  US:RI006698     50 41:44 071:26(48-89) PROVIDENCE WSO AP        58.6  REJECTED
ACTIVE   C  US:CT003451     20 41:44 072:39(20-89) HARTFORD BRAINARD FLD     4.8
REGULAR1 C  US:CT004767    370 41:33 072:43(48-89) MIDDLETOWN 4 W           13.0
REGULAR2 C  US:CT001689    480 41:48 072:21(57-89) COVENTRY                 13.1
REGULAR3 C  US:CT003456    160 41:56 072:41(54-89) HARTFORD WSO AP          17.1
**********************************************************************
* GPS SITE:  5/095001      N41:50:51 W072:26:25 ELEV:  534, 1980
**********************************************************************
FIRST O. F  US:RI006698     50 41:44 071:26(48-89) PROVIDENCE WSO AP        52.5  REJECTED
ACTIVE   C  US:CT001689    480 41:48 072:21(57-89) COVENTRY                  5.7
REGULAR1 C  US:CT008138    650 41:48 072:15( 1-89) STORRS                   10.3
REGULAR2 C  US:CT003451     20 41:44 072:39(20-89) HARTFORD BRAINARD FLD     13.4
REGULAR3 C  US:CT003456    160 41:56 072:41(54-89) HARTFORD WSO AP          13.8
**********************************************************************
* GPS SITE:  4/101201      N38:45:30 W075:15:00 ELEV:   15, 1966
**********************************************************************
FIRST O. F  US:NJ005581     70 39:22 075:04(48-89) MILLVILLE FAA AIRPORT    43.1
ACTIVE   C  US:DE005320     20 38:46 075:08(48-89) LEWES                     6.3
REGULAR1 C  US:DE003570     50 38:38 075:27(48-89) GEORGETOWN 5 SW           13.8
REGULAR2 C  US:DE005915     30 38:54 075:28(48-89) MILFORD 2 WSW             15.2
REGULAR3 C  US:DE001330     50 38:45 075:37(48-85) BRIDGEVILLE 1 NW          19.8
**********************************************************************
* GPS SITE:  2/101450      N39:01:35 W075:27:50 ELEV:   27, 1976
**********************************************************************
FIRST O. F  US:NJ005581     70 39:22 075:04(48-89) MILLVILLE FAA AIRPORT    31.7
ACTIVE   C  US:DE005915     30 38:54 075:28(48-89) MILFORD 2 WSW             8.7
REGULAR1 C  US:DE002730     30 39:09 075:31(48-89) DOVER                     9.0
REGULAR2 C  US:MD002523     50 38:53 075:48(52-89) DENTON 2 E               20.6
REGULAR3 C  US:DE001330     50 38:45 075:37(48-85) BRIDGEVILLE 1 NW          20.8
**********************************************************************
* GPS SITE:  4/104002      N39:05:30 W075:30:00 ELEV:   22, 1977
**********************************************************************
FIRST O. F  US:NJ005581     70 39:22 075:04(48-89) MILLVILLE FAA AIRPORT    30.0
ACTIVE   C  US:DE002730     30 39:09 075:31(48-89) DOVER                     4.1
REGULAR1 C  US:DE005915     30 38:54 075:28(48-89) MILFORD 2 WSW             13.4
REGULAR2 C  US:MD002523     50 38:53 075:48(52-89) DENTON 2 E               21.6
REGULAR3 C  US:MD005985     30 39:16 075:52(48-89) MILLINGTON 1 SE           23.1
**********************************************************************
* GPS SITE:  5/105004      N39:40:30 W075:34:00 ELEV:   14, 1977
**********************************************************************
FIRST O. F  US:DE009595     80 39:40 075:36(48-89) WILMINGTON WSO AP          1.9
ACTIVE   C  US:DE009605    270 39:46 075:32(48-89) WILMINGTON PORTER RES      6.6
REGULAR1 C  US:DE006410     90 39:40 075:44(48-89) NEWARK UNIV FARM          8.9
REGULAR2 C  US:PA005390     10 39:49 075:25(48-89) MARCUS HOOK               12.6
REGULAR3 C  US:NJ009910     50 39:39 075:19(48-89) WOODSTOWN                 13.4
**********************************************************************
* GPS SITE:  5/105005      N38:55:30 W075:25:00 ELEV:   25, 1971
**********************************************************************
FIRST O. F  US:NJ005581     70 39:22 075:04(48-89) MILLVILLE FAA AIRPORT    35.8
ACTIVE   C  US:DE005915     30 38:54 075:28(48-89) MILFORD 2 WSW             3.2
REGULAR1 C  US:DE001330     50 38:45 075:37(48-85) BRIDGEVILLE 1 NW          16.2
REGULAR2 C  US:DE002730     30 39:09 075:31(48-89) DOVER                     16.4
REGULAR3 C  US:DE005320     20 38:46 075:08(48-89) LEWES                     18.8
**********************************************************************
* GPS SITE: 68/111400      N38:52:00 W077:00:00 ELEV:   20, 1963
**********************************************************************
FIRST O. F  US:VA008906     70 38:51 077:02(48-89) WASH NATL WSCMO AP         2.1
ACTIVE   C  US:MD006350     50 38:54 076:58(48-89) NATIONAL ARBORETUM DC      2.9
REGULAR1 C  US:MD009035    230 38:56 077:01(48-77) U S SOLDIERS HOME DC      4.7
REGULAR2 C  US:MD002325    150 38:56 077:07(48-89) DALECARLIA RESERVOIR      7.8
REGULAR3 C  US:MD001995     90 38:59 076:57(48-89) COLLEGE PARK              8.5
```

```
**********************************************************************
* GPS SITE:  1/121030      N26:59:40 W080:05:49 ELEV:   25, 1971
**********************************************************************
FIRST O. F  US:FL009525     20 26:41 080:07(48-89) WEST PALM BCH WSO AP      21.5
ACTIVE   C  US:FL008620     10 27:13 080:15(48-89) STUART 1 N                18.0
REGULAR1 C  US:FL005182     10 26:41 080:16(48-88) LOXAHATCHEE               23.9
REGULAR2 C  US:FL001276     30 26:52 080:37(53-89) CANAL POINT USDA          33.2
REGULAR3 C  US:FL003207     30 27:28 080:21(31-89) FORT PIERCE               36.1
**********************************************************************
* GPS SITE:  1/121060      N25:41:43 W080:19:35 ELEV:   10, 1978
**********************************************************************
FIRST O. F  US:FL005663     10 25:48 080:18(48-89) MIAMI WSCMO AP             7.4
ACTIVE   C  US:FL003909     10 25:50 080:17(48-89) HIALEAH                    9.9
REGULAR1 C  US:FL005678     10 25:39 080:18(58-88) MIAMI 12 SSW               3.5
REGULAR2 C  US:FL005658     10 25:47 080:08(48-89) MIAMI BEACH               13.5
REGULAR3 C  US:FL004091     10 25:30 080:30(31-88) HOMESTEAD EXP STN         17.3
**********************************************************************
* GPS SITE:  1/121370      N28:30:55 W080:49:46 ELEV:   19, 1974
**********************************************************************
FIRST O. F  US:FL002158     30 29:11 081:03(48-89) DAYTONA BEACH WSO AP      48.0
ACTIVE   C  US:FL008942     50 28:37 080:49(31-89) TITUSVILLE                 7.0
REGULAR1 C  US:FL006628    100 28:27 081:19(74-89) ORLANDO WSO MC COY        30.0
REGULAR2 C  US:FL007982     20 28:48 081:14(56-89) SANFORD EXP STATION       31.4
REGULAR3 C  US:FL005612     10 28:04 080:37(48-89) MELBOURNE                 33.6
**********************************************************************
* GPS SITE:  3/123804      N28:01:03 W082:19:52 ELEV:   26, 1985
**********************************************************************
FIRST O. F  US:FL008788     20 27:58 082:32(33-89) TAMPA WSCMO AP            12.8
ACTIVE   C  US:FL007205    120 28:01 082:08(31-89) PLANT CITY                12.1
REGULAR1 C  US:FL007851    190 28:20 082:16(31-89) SAINT LEO                 22.2
REGULAR2 C  US:FL007886     10 27:46 082:38(48-89) ST PETERSBURG             25.3
REGULAR3 F  US:FL004797    150 28:01 081:55(48-89) LAKELAND 3 SE             25.3
**********************************************************************
* GPS SITE:  3/123811      N30:31:31 W084:30:13 ELEV:  194, 1976
**********************************************************************
FIRST O. F  US:FL000211     20 29:44 085:02(31-89) APALACHICOLA WSO AP       63.2
ACTIVE   C  US:FL007429    250 30:36 084:33(68-89) QUINCY 3 SSW              5.9
REGULAR1 C  US:FL008758     60 30:23 084:22(48-89) TALLAHASSEE WSO AP        12.8
REGULAR2 C  US:GA000586    190 30:48 084:39(77-89) BAINBRIDGE INT PAPER      20.9
REGULAR3 C  US:FL008290     60 30:12 084:40(70-83) SMITH CREEK               24.5
**********************************************************************
* GPS SITE:  1/123995      N26:30:00 W080:04:41 ELEV:   19, 1974
**********************************************************************
FIRST O. F  US:FL009525     20 26:41 080:07(48-89) WEST PALM BCH WSO AP      12.9
ACTIVE   C  US:FL007254     20 26:14 080:09(48-89) POMPANO BEACH             18.9
REGULAR1 C  US:FL005182     10 26:41 080:16(48-88) LOXAHATCHEE               17.2
REGULAR2 C  US:FL003163     20 26:06 080:12(48-89) FORT LAUDERDALE           28.6
REGULAR3 C  US:FL000611     20 26:39 080:38(24-89) BELLE GLADE EXP STN       35.9
**********************************************************************
* GPS SITE:  1/123996      N28:34:06 W082:33:32 ELEV:   27, 1974
**********************************************************************
FIRST O. F  US:FL008788     20 27:58 082:32(33-89) TAMPA WSCMO AP            41.6
ACTIVE   C  US:FL009430    200 28:31 082:35(69-89) WEEKI WACHEE              3.9
REGULAR1 C  US:FL001046    240 28:37 082:22(31-89) BROOKSVILLE CHIN HILL     12.1
REGULAR2 C  US:FL004289     40 28:44 082:19(48-89) INVERNESS 3 SE            18.6
REGULAR3 C  US:FL007851    190 28:20 082:16(31-89) SAINT LEO                 24.1
**********************************************************************
* GPS SITE:  1/123997      N30:05:14 W081:42:23 ELEV:   21, 1974
**********************************************************************
FIRST O. F  US:FL004358     30 30:30 081:42(48-89) JACKSONVILLE WSO AP       28.5
ACTIVE   C  US:FL004366     10 30:17 081:24(48-89) JACKSONVILLE BEACH        22.8
REGULAR1 C  US:FL002915     10 29:45 081:32(31-89) FEDERAL POINT             25.5
REGULAR2 C  US:FL008527    160 29:56 082:06(58-85) STARKE                    25.9
REGULAR3 C  US:FL007826     10 29:54 081:19(73-89) SAINT AUGUSTINE WFOY      26.7
**********************************************************************
* GPS SITE:  3/124000      N29:04:53 W081:14:26 ELEV:   45, 1974
**********************************************************************
FIRST O. F  US:FL002158     30 29:11 081:03(48-89) DAYTONA BEACH WSO AP      13.5
ACTIVE   C  US:FL002229     30 29:01 081:18(31-89) DELAND 1 SSE               5.7
REGULAR1 C  US:FL007982     20 28:48 081:14(56-89) SANFORD EXP STATION       19.4
REGULAR2 C  US:FL001978     60 29:26 081:31(31-89) CRESCENT CITY             29.5
REGULAR3 C  US:FL005076     70 28:52 081:47(58-89) LISBON                    36.0
```

```
**********************************************************************
* GPS SITE:  3/124057      N27:53:00 W082:19:00 ELEV:   34, 1985
**********************************************************************
FIRST O. F  US:FL008788     20 27:58 082:32(33-89) TAMPA WSCMO AP          14.4
ACTIVE   C  US:FL007205    120 28:01 082:08(31-89) PLANT CITY              14.5
REGULAR1 C  US:FL007886     10 27:46 082:38(48-89) ST PETERSBURG           21.0
REGULAR2 C  US:FL006880     40 27:34 082:26(48-89) PARRISH                 23.0
REGULAR3 F  US:FL004797    150 28:01 081:55(48-89) LAKELAND 3 SE           26.1
**********************************************************************
* GPS SITE:  3/124059      N28:55:09 W080:52:19 ELEV:   14, 1988
**********************************************************************
FIRST O. F  US:FL002158     30 29:11 081:03(48-89) DAYTONA BEACH WSO AP    21.2
ACTIVE   C  US:FL008942     50 28:37 080:49(31-89) TITUSVILLE              21.2
REGULAR1 C  US:FL007982     20 28:48 081:14(56-89) SANFORD EXP STATION     23.4
REGULAR2 C  US:FL002229     30 29:01 081:18(31-89) DELAND 1 SSE            26.8
REGULAR3 C  US:FL006628    100 28:27 081:19(74-89) ORLANDO WSO MC COY      42.2
**********************************************************************
* GPS SITE:  2/124096      N30:26:10 W085:29:55 ELEV:  136, 1974
**********************************************************************
FIRST O. F  US:FL000211     20 29:44 085:02(31-89) APALACHICOLA WSO AP     56.0
ACTIVE   C  US:FL003230    140 30:26 085:25(55-89) FOUNTAIN 3 SSE           4.9
REGULAR1 C  US:FL006842     30 30:13 085:36(72-89) PANAMA CITY 5 NE        16.3
REGULAR2 C  US:FL001544    130 30:47 085:29(48-89) CHIPLEY 3 E            24.0
REGULAR3 C  US:FL000804     60 30:27 085:03(31-82) BLOUNTSTOWN             26.8
**********************************************************************
* GPS SITE:  2/124097      N30:45:23 W085:20:44 ELEV:  118, 1985
**********************************************************************
FIRST O. F  US:FL000211     20 29:44 085:02(31-89) APALACHICOLA WSO AP     73.1
ACTIVE   C  US:FL001544    130 30:47 085:29(48-89) CHIPLEY 3 E             8.4
REGULAR1 C  US:FL003230    140 30:26 085:25(55-89) FOUNTAIN 3 SSE         22.7
REGULAR2 C  US:AL003251    150 31:03 085:53(76-89) GENEVA 2               37.8
REGULAR3 C  US:FL006842     30 30:13 085:36(72-89) PANAMA CITY 5 NE       40.2
**********************************************************************
* GPS SITE:  1/124099      N26:36:14 W081:49:59 ELEV:   23, 1976
**********************************************************************
FIRST O. F  US:FL003186     20 26:35 081:52(31-89) FORT MYERS FAA AP        2.5
ACTIVE   C  US:FL007397     20 26:55 082:00(65-89) PUNTA GORDA 4 ESE       23.9
REGULAR1 C  US:FL004210     40 26:28 081:26(70-89) IMMOKALEE 3 NNW         26.5
REGULAR2 C  US:FL004662     20 26:45 081:26(48-89) LA BELLE                26.7
REGULAR3 C  US:FL006078     10 26:10 081:47(48-89) NAPLES                  30.3
**********************************************************************
* GPS SITE:  2/124100      N30:32:21 W086:29:41 ELEV:  122, 1975
**********************************************************************
FIRST O. F  US:FL006997    110 30:28 087:12(48-89) PENSACOLA FAA AP        42.3
ACTIVE   C  US:FL006240     60 30:31 086:30(48-89) NICEVILLE                1.6
REGULAR1 C  US:FL001986    190 30:47 086:31(48-89) CRESTVIEW FAA AP        16.9
REGULAR2 C  US:FL002220    230 30:44 086:07(31-89) DE FUNIAK SPRINGS       26.2
REGULAR3 C  US:FL005793    220 30:47 087:08(48-89) MILTON EXP STATION      41.6
**********************************************************************
* GPS SITE: 68/124101      N28:26:54 W081:16:39 ELEV:   86, 1969
**********************************************************************
FIRST O. F  US:FL002158     30 29:11 081:03(48-89) DAYTONA BEACH WSO AP    52.6
ACTIVE   C  US:FL006628    100 28:27 081:19(74-89) ORLANDO WSO MC COY       2.4
REGULAR1 C  US:FL004625     60 28:17 081:25(48-89) KISSIMMEE 2             14.2
REGULAR2 C  US:FL007982     20 28:48 081:14(56-89) SANFORD EXP STATION     24.4
REGULAR3 C  US:FL001641    120 28:27 081:45(48-89) CLERMONT 7 S            28.7
**********************************************************************
* GPS SITE:  1/124103      N25:46:53 W080:21:31 ELEV:    9, 1982
**********************************************************************
FIRST O. F  US:FL005663     10 25:48 080:18(48-89) MIAMI WSCMO AP           3.9
ACTIVE   C  US:FL003909     10 25:50 080:17(48-89) HIALEAH                  5.9
REGULAR1 C  US:FL005678     10 25:39 080:18(58-88) MIAMI 12 SSW             9.8
REGULAR2 C  US:FL005658     10 25:47 080:08(48-89) MIAMI BEACH             14.0
REGULAR3 C  US:FL004091     10 25:30 080:30(31-88) HOMESTEAD EXP STN       21.3
**********************************************************************
* GPS SITE:  1/124105      N30:24:00 W081:33:00 ELEV:   20, 1985
**********************************************************************
FIRST O. F  US:FL004358     30 30:30 081:42(48-89) JACKSONVILLE WSO AP     11.3
ACTIVE   C  US:FL004366     10 30:17 081:24(48-89) JACKSONVILLE BEACH      12.0
REGULAR1 C  US:FL002944     10 30:39 081:28(48-89) FERNANDINA BEACH        18.0
REGULAR2 C  US:FL007826     10 29:54 081:19(73-89) SAINT AUGUSTINE WFOY    37.2
REGULAR3 C  US:FL003470    130 30:16 082:11(31-89) GLEN ST MARY 1 W        38.9
```

```
**********************************************************************
* GPS SITE:  1/124106      N26:54:00 W080:10:00 ELEV:   22, 1986
**********************************************************************
FIRST O. F  US:FL009525     20 26:41 080:07(48-89) WEST PALM BCH WSO AP      15.3
ACTIVE   C  US:FL008620     10 27:13 080:15(48-89) STUART 1 N                22.5
REGULAR1 C  US:FL005182     10 26:41 080:16(48-88) LOXAHATCHEE               16.2
REGULAR2 C  US:FL001276     30 26:52 080:37(53-89) CANAL POINT USDA          27.9
REGULAR3 C  US:FL000611     20 26:39 080:38(24-89) BELLE GLADE EXP STN       33.6
**********************************************************************
* GPS SITE:  1/124107      N27:23:34 W080:27:35 ELEV:   26, 1985
**********************************************************************
FIRST O. F  US:FL009214     20 27:39 080:25(48-89) VERO BEACH MUN AP         18.0
ACTIVE   C  US:FL003207     30 27:28 080:21(31-89) FORT PIERCE                8.5
REGULAR1 C  US:FL009219     20 27:38 080:27(65-89) VERO BEACH 4 W            16.6
REGULAR2 C  US:FL008620     10 27:13 080:15(48-89) STUART 1 N                17.7
REGULAR3 C  US:FL006485     50 27:13 080:48(48-89) OKEECHOBEE HRCN GATE      24.2
**********************************************************************
* GPS SITE:  2/124108      N30:22:59 W086:25:52 ELEV:   19, 1986
**********************************************************************
FIRST O. F  US:FL006997    110 30:28 087:12(48-89) PENSACOLA FAA AP          46.2
ACTIVE   C  US:FL006240     60 30:31 086:30(48-89) NICEVILLE                 10.1
REGULAR1 C  US:FL002220    230 30:44 086:07(31-89) DE FUNIAK SPRINGS         30.6
REGULAR2 C  US:FL005793    220 30:47 087:08(48-89) MILTON EXP STATION        50.1
REGULAR3 C  US:FL006842     30 30:13 085:36(72-89) PANAMA CITY 5 NE          50.9
**********************************************************************
* GPS SITE:  3/124109      N28:54:45 W080:52:07 ELEV:   14, 1988
**********************************************************************
FIRST O. F  US:FL002158     30 29:11 081:03(48-89) DAYTONA BEACH WSO AP      21.7
ACTIVE   C  US:FL008942     50 28:37 080:49(31-89) TITUSVILLE                20.7
REGULAR1 C  US:FL007982     20 28:48 081:14(56-89) SANFORD EXP STATION       23.4
REGULAR2 C  US:FL002229     30 29:01 081:18(31-89) DELAND 1 SSE              27.1
REGULAR3 C  US:FL006628    100 28:27 081:19(74-89) ORLANDO WSO MC COY        41.9
**********************************************************************
* GPS SITE: 68/124135      N27:51:40 W081:35:19 ELEV:  130, 1971
**********************************************************************
FIRST O. F  US:FL008788     20 27:58 082:32(33-89) TAMPA WSCMO AP            58.2
ACTIVE   C  US:FL005973    130 27:56 081:36(48-89) MOUNTAIN LAKE              5.0
REGULAR1 C  US:FL009707    140 28:01 081:45(48-89) WINTER HAVEN              14.6
REGULAR2 C  US:FL004242    100 27:48 081:20(58-81) INDIAN LAKE ESTATES       16.2
REGULAR3 C  US:FL000478    120 27:54 081:51(31-89) BARTOW                    16.2
**********************************************************************
* GPS SITE: 68/124136      N27:51:54 W081:35:26 ELEV:  131, 1971
**********************************************************************
FIRST O. F  US:FL008788     20 27:58 082:32(33-89) TAMPA WSCMO AP            58.1
ACTIVE   C  US:FL005973    130 27:56 081:36(48-89) MOUNTAIN LAKE              4.8
REGULAR1 C  US:FL009707    140 28:01 081:45(48-89) WINTER HAVEN              14.3
REGULAR2 C  US:FL000478    120 27:54 081:51(31-89) BARTOW                    16.0
REGULAR3 C  US:FL004242    100 27:48 081:20(58-81) INDIAN LAKE ESTATES       16.4
**********************************************************************
* GPS SITE: 68/124137      N27:53:02 W081:35:59 ELEV:  131, 1971
**********************************************************************
FIRST O. F  US:FL008788     20 27:58 082:32(33-89) TAMPA WSCMO AP            57.3
ACTIVE   C  US:FL005973    130 27:56 081:36(48-89) MOUNTAIN LAKE              3.4
REGULAR1 C  US:FL009707    140 28:01 081:45(48-89) WINTER HAVEN              13.0
REGULAR2 C  US:FL000478    120 27:54 081:51(31-89) BARTOW                    15.3
REGULAR3 C  US:FL004707    140 28:06 081:43( 5-89) LAKE ALFRED EXP STN       16.5
**********************************************************************
* GPS SITE:  3/124138      N29:07:23 W081:10:17 ELEV:   41, 1974
**********************************************************************
FIRST O. F  US:FL002158     30 29:11 081:03(48-89) DAYTONA BEACH WSO AP       8.4
ACTIVE   C  US:FL002229     30 29:01 081:18(31-89) DELAND 1 SSE              10.7
REGULAR1 C  US:FL007982     20 28:48 081:14(56-89) SANFORD EXP STATION       22.6
REGULAR2 C  US:FL001978     60 29:26 081:31(31-89) CRESCENT CITY             29.9
REGULAR3 C  US:FL005076     70 28:52 081:47(58-89) LISBON                    41.0
**********************************************************************
* GPS SITE:  1/124153      N27:14:05 W080:30:35 ELEV:   30, 1987
**********************************************************************
FIRST O. F  US:FL009214     20 27:39 080:25(48-89) VERO BEACH MUN AP         29.2
ACTIVE   C  US:FL008620     10 27:13 080:15(48-89) STUART 1 N                16.0
REGULAR1 C  US:FL006485     50 27:13 080:48(48-89) OKEECHOBEE HRCN GATE      17.9
REGULAR2 C  US:FL003207     30 27:28 080:21(31-89) FORT PIERCE               18.8
REGULAR3 C  US:FL001276     30 26:52 080:37(53-89) CANAL POINT USDA          26.3
```

```
**********************************************************************
* GPS SITE:  1/124154      N29:00:01 W081:00:51 ELEV:   11, 1970
**********************************************************************
FIRST O. F  US:FL002158     30 29:11 081:03(48-89) DAYTONA BEACH WSO AP      17.0
ACTIVE    C US:FL007982     20 28:48 081:14(56-89) SANFORD EXP STATION       22.4
REGULAR1 C  US:FL002229     30 29:01 081:18(31-89) DELAND 1 SSE             23.4
REGULAR2 C  US:FL008942     50 28:37 080:49(31-89) TITUSVILLE               24.9
REGULAR3 C  US:FL006628    100 28:27 081:19(74-89) ORLANDO WSO MC COY       43.1
**********************************************************************
* GPS SITE:  1/129054      N30:37:33 W081:37:32 ELEV:   25, 1974
**********************************************************************
FIRST O. F  US:FL004358     30 30:30 081:42(48-89) JACKSONVILLE WSO AP       9.8
ACTIVE    C US:FL002944     10 30:39 081:28(48-89) FERNANDINA BEACH          9.6
REGULAR1 C  US:FL004366     10 30:17 081:24(48-89) JACKSONVILLE BEACH       27.2
REGULAR2 C  US:GA003465    120 30:44 082:08(48-89) FOLKSTON 9 SW            31.1
REGULAR3 C  US:GA001340     10 31:10 081:30(30-89) BRUNSWICK                38.1
**********************************************************************
* GPS SITE:  1/131001      N33:49:00 W083:49:00 ELEV:  900, 1986
**********************************************************************
FIRST O. F  US:GA000435    800 33:57 083:19(48-89) ATHENS WSO AP            30.2
ACTIVE    C US:GA009466    960 33:59 083:43(48-89) WINDER 1 SSE             12.9
REGULAR1 C  US:GA002318    770 33:36 083:52(48-89) COVINGTON                15.2
REGULAR2 C  US:GA008950    840 33:52 083:32(71-89) U OF GA PLT SCIENCE F    16.6
REGULAR3 C  US:GA000219   1040 34:00 084:18(57-89) ALPHARETTA 5 SSW         30.5
**********************************************************************
* GPS SITE:  1/131004      N33:17:00 W084:10:00 ELEV:  760, 1983
**********************************************************************
FIRST O. F  US:GA000451   1010 33:39 084:26(30-89) ATLANTA WSO AP           29.6
ACTIVE    C US:GA003271    930 33:16 084:17(26-89) EXPERIMENT               6.8
REGULAR1 C  US:GA003506    600 33:07 083:59(54-89) FORSYTH 6 NNW            15.7
REGULAR2 C  US:GA002318    770 33:36 083:52(48-89) COVINGTON                27.9
REGULAR3 C  US:GA005988    660 33:18 083:41(48-89) MONTICELLO               28.0
**********************************************************************
* GPS SITE:  1/131005      N32:37:00 W083:48:00 ELEV:  452, 1986
**********************************************************************
FIRST O. F  US:GA005443    350 32:42 083:39(48-89) MACON WSO AP             10.5
ACTIVE    C US:GA001448    490 32:40 083:44(77-89) BYRON EXP STATION        5.2
REGULAR1 C  US:GA005550    190 32:27 083:56(57-89) MARSHALLVILLE            13.9
REGULAR2 C  US:GA004170    270 32:17 083:28(30-89) HAWKINSVILLE             30.1
REGULAR3 C  US:GA008661    670 32:52 084:19(55-89) THOMASTON 2 S            34.7
**********************************************************************
* GPS SITE:  1/131031      N34:28:00 W083:58:00 ELEV:  120, 1981
**********************************************************************
FIRST O. F  US:GA000435    800 33:57 083:19(48-89) ATHENS WSO AP            51.5
ACTIVE    C US:GA002475   1430 34:32 083:59(30-89) DAHLONEGA                4.7
REGULAR1 C  US:GA003621   1170 34:18 083:51(30-89) GAINESVILLE             13.3
REGULAR2 C  US:GA004230   1440 34:42 083:43(56-89) HELEN                    21.5
REGULAR3 C  US:GA002283   1470 34:31 083:32(48-89) CORNELIA                 24.9
**********************************************************************
* GPS SITE:  3/133007      N34:22:00 W084:23:00 ELEV: 1422, 1982
**********************************************************************
FIRST O. F  US:GA000451   1010 33:39 084:26(30-89) ATLANTA WSO AP           49.6
ACTIVE    C US:GA004648   1470 34:29 084:27(48-89) JASPER 1 NNW             8.9
REGULAR1 C  US:GA001665    720 34:13 084:47(48-89) CARTERSVILLE             25.1
REGULAR2 C  US:GA002475   1430 34:32 083:59(30-89) DAHLONEGA                25.6
REGULAR3 C  US:GA000219   1040 34:00 084:18(57-89) ALPHARETTA 5 SSW         25.8
**********************************************************************
* GPS SITE:  3/133011      N32:22:00 W082:36:00 ELEV:  248, 1974
**********************************************************************
FIRST O. F  US:GA005443    350 32:42 083:39(48-89) MACON WSO AP             65.4
ACTIVE    C US:GA000090    240 32:11 082:34(48-89) AILEY                    12.8
REGULAR1 C  US:GA002839    220 32:30 082:54(30-89) DUBLIN 3 S               19.8
REGULAR2 C  US:GA008496    330 32:35 082:22(48-89) SWAINSBORO               20.2
REGULAR3 C  US:GA005811    120 32:24 082:04(55-89) METTER                   31.2
**********************************************************************
* GPS SITE:  3/133015      N32:20:00 W081:58:00 ELEV:  178, 1979
**********************************************************************
FIRST O. F  US:GA007847     50 32:08 081:12(48-89) SAVANNAH WSO AP          46.9
ACTIVE    C US:GA005811    120 32:24 082:04(55-89) METTER                    7.4
REGULAR1 C  US:GA001973    190 32:10 081:54(78-89) CLAXTON                  12.2
REGULAR2 C  US:GA001266    190 32:23 081:41(30-89) BROOKLET 1 W             16.9
REGULAR3 C  US:GA003754    170 31:56 081:55(30-89) GLENNVILLE               27.8
```

```
*****************************************************************
* GPS SITE:  3/133016      N33:41:00 W085:19:00 ELEV: 1218, 1977
*****************************************************************
FIRST O. F  US:AL000272    610 33:35 085:51(48-89) ANNISTON FAA AP        31.5
ACTIVE   C  US:GA001640    990 33:36 085:05(48-89) CARROLLTON             14.6
REGULAR1 C  US:AL003775    850 33:39 085:36(56-89) HEFLIN                 16.5
REGULAR2 C  US:GA001732    790 34:01 085:15(48-89) CEDARTOWN              23.3
REGULAR3 C  US:GA006335    920 33:26 084:47(48-89) NEWNAN 4 N E           35.3
*****************************************************************
* GPS SITE:  3/133017      N33:32:00 W082:53:00 ELEV:  583, 1973
*****************************************************************
FIRST O. F  US:GA000435    800 33:57 083:19(48-89) ATHENS WSO AP          38.1
ACTIVE   C  US:GA008064    690 33:32 083:06(60-89) SILOAM                 12.5
REGULAR1 C  US:GA009141    510 33:25 082:39(30-89) WARRENTON              15.7
REGULAR2 C  US:GA009157    620 33:43 082:43(48-89) WASHINGTON 2 ESE       15.9
REGULAR3 C  US:GA000311    370 33:34 082:20(61-89) APPLING 2 NW           31.8
*****************************************************************
* GPS SITE:  3/133018      N33:30:00 W082:45:00 ELEV:  550, 1973
*****************************************************************
FIRST O. F  US:GA000435    800 33:57 083:19(48-89) ATHENS WSO AP          45.0
ACTIVE   C  US:GA009141    510 33:25 082:39(30-89) WARRENTON               8.1
REGULAR1 C  US:GA009157    620 33:43 082:43(48-89) WASHINGTON 2 ESE       15.1
REGULAR2 C  US:GA008064    690 33:32 083:06(60-89) SILOAM                 20.3
REGULAR3 C  US:GA000311    370 33:34 082:20(61-89) APPLING 2 NW           24.5
*****************************************************************
* GPS SITE:  3/133019      N34:24:00 W083:43:00 ELEV: 1042, 1982
*****************************************************************
FIRST O. F  US:GA000435    800 33:57 083:19(48-89) ATHENS WSO AP          38.6
ACTIVE   C  US:GA003621   1170 34:18 083:51(30-89) GAINESVILLE           10.3
REGULAR1 C  US:GA002283   1470 34:31 083:32(48-89) CORNELIA              13.2
REGULAR2 C  US:GA002180    750 34:15 083:29(57-89) COMMERCE 4 NNW         16.9
REGULAR3 C  US:GA002475   1430 34:32 083:59(30-89) DAHLONEGA              17.8
*****************************************************************
* GPS SITE:  3/133020      N32:04:00 W083:46:00 ELEV:  307, 1985
*****************************************************************
FIRST O. F  US:GA005443    350 32:42 083:39(48-89) MACON WSO AP           44.3
ACTIVE   C  US:GA002266    310 32:00 083:47(48-89) CORDELE                 4.7
REGULAR1 C  US:GA004170    270 32:17 083:28(30-89) HAWKINSVILLE           23.1
REGULAR2 C  US:GA000406    440 31:43 083:37(57-89) ASHBURN 3 ENE          25.7
REGULAR3 C  US:GA005550    190 32:27 083:56(57-89) MARSHALLVILLE          28.2
*****************************************************************
* GPS SITE:  2/134092      N30:54:00 W084:00:00 ELEV:  278, 1986
*****************************************************************
FIRST O. F  US:FL000211     20 29:44 085:02(31-89) APALACHICOLA WSO AP    101.5
ACTIVE   C  US:GA008666    260 30:53 083:56( 1-89) THOMASVILLE 3 NE        4.1
REGULAR1 C  US:GA006087    340 31:10 083:45(26-89) MOULTRIE 2 ESE         23.6
REGULAR2 C  US:GA007276    190 30:48 083:35( 1-89) QUITMAN 2 NW           25.7
REGULAR3 C  US:FL005879    150 30:32 083:55(48-89) MONTICELLO 3 W         25.8
*****************************************************************
* GPS SITE:  2/134093      N31:05:00 W084:05:00 ELEV:  350, 1986
*****************************************************************
FIRST O. F  US:FL000211     20 29:44 085:02(31-89) APALACHICOLA WSO AP    109.1
ACTIVE   C  US:GA001500    180 31:14 084:13(48-89) CAMILLA                13.0
REGULAR1 C  US:GA008666    260 30:53 083:56( 1-89) THOMASVILLE 3 NE       16.4
REGULAR2 C  US:GA006087    340 31:10 083:45(26-89) MOULTRIE 2 ESE         20.6
REGULAR3 C  US:GA000140    180 31:32 084:08( 1-89) ALBANY 3 SE            31.2
*****************************************************************
* GPS SITE:  2/134096      N31:24:00 W084:55:00 ELEV:  270, 1985
*****************************************************************
FIRST O. F  US:AL005550    220 32:18 086:24(48-89) MONTGOMERY WSO AP      107.0
ACTIVE   C  US:GA000979    270 31:21 084:57( 1-89) BLAKELY                 4.0
REGULAR1 C  US:GA002153    150 31:10 084:46(56-89) COLQUITT 2 W           18.4
REGULAR2 C  US:AL003761    370 31:21 085:20(50-89) HEADLAND               24.8
REGULAR3 C  US:GA002450    460 31:46 084:47(48-89) CUTHBERT               26.5
*****************************************************************
* GPS SITE:  2/134111      N33:56:00 W083:30:00 ELEV:  735, 1980
*****************************************************************
FIRST O. F  US:GA000435    800 33:57 083:19(48-89) ATHENS WSO AP          10.6
ACTIVE   C  US:GA008950    840 33:52 083:32(71-89) U OF GA PLT SCIENCE F   5.0
REGULAR1 C  US:GA009466    960 33:59 083:43(48-89) WINDER 1 SSE           12.9
REGULAR2 C  US:GA002180    750 34:15 083:29(57-89) COMMERCE 4 NNW         21.9
REGULAR3 C  US:GA002318    770 33:36 083:52(48-89) COVINGTON              31.2
```

```
**********************************************************************
* GPS SITE:  2/134112      N31:01:30 W081:41:00 ELEV:   13, 1977
**********************************************************************
FIRST O. F  US:GA001345     10 31:09 081:23(48-89) BRUNSWICK FAA AP        24.7
ACTIVE   C  US:GA001340     10 31:10 081:30(30-89) BRUNSWICK               20.9
REGULAR1 C  US:FL002944     10 30:39 081:28(48-89) FERNANDINA BEACH        23.1
REGULAR2 C  US:GA006219     70 31:11 081:58(56-89) NAHUNTA                 24.3
REGULAR3 C  US:GA003465    120 30:44 082:08(48-89) FOLKSTON 9 SW           28.7
**********************************************************************
* GPS SITE:  2/134113      N31:05:00 W081:36:00 ELEV:   13, 1977
**********************************************************************
FIRST O. F  US:GA001345     10 31:09 081:23(48-89) BRUNSWICK FAA AP        13.6
ACTIVE   C  US:GA001340     10 31:10 081:30(30-89) BRUNSWICK                8.3
REGULAR1 C  US:GA006219     70 31:11 081:58(56-89) NAHUNTA                 22.8
REGULAR2 C  US:GA007808     10 31:24 081:17(57-89) SAPELO ISLAND           28.8
REGULAR3 C  US:FL002944     10 30:39 081:28(48-89) FERNANDINA BEACH        31.0
**********************************************************************
* GPS SITE:  9/134118      N33:00:52 W083:53:04 ELEV:  634, 1958
**********************************************************************
FIRST O. F  US:GA005443    350 32:42 083:39(48-89) MACON WSO AP            23.3
ACTIVE   C  US:GA003506    600 33:07 083:59(54-89) FORSYTH 6 NNW           11.9
REGULAR1 C  US:GA005988    660 33:18 083:41(48-89) MONTICELLO              22.5
REGULAR2 C  US:GA008661    670 32:52 084:19(55-89) THOMASTON 2 S           29.5
REGULAR3 C  US:GA003271    930 33:16 084:17(26-89) EXPERIMENT              31.9
**********************************************************************
* GPS SITE: 6B/134119      N34:05:19 W084:42:38 ELEV:  885, 1977
**********************************************************************
FIRST O. F  US:GA000451   1010 33:39 084:26(30-89) ATLANTA WSO AP          34.2
ACTIVE   C  US:GA002485   1100 33:59 084:45(48-89) DALLAS 7 NE             7.6
REGULAR1 C  US:GA001665    720 34:13 084:47(48-89) CARTERSVILLE            9.8
REGULAR2 C  US:GA000219   1040 34:00 084:18(57-89) ALPHARETTA 5 SSW        24.3
REGULAR3 C  US:GA007600    620 34:15 085:09(30-89) ROME                    27.5
**********************************************************************
* GPS SITE:  2/134420      N31:54:17 W081:21:47 ELEV:   20, 1984
**********************************************************************
FIRST O. F  US:GA007847     50 32:08 081:12(48-89) SAVANNAH WSO AP         18.5
ACTIVE   C  US:GA003538     90 31:52 081:37(64-89) FORT STEWART            15.1
REGULAR1 C  US:GA003754    170 31:56 081:55(30-89) GLENNVILLE              32.6
REGULAR2 C  US:GA004674     80 31:39 081:50(50-89) JESUP 4 NE              32.8
REGULAR3 C  US:GA007808     10 31:24 081:17(57-89) SAPELO ISLAND           35.2
**********************************************************************
* GPS SITE:  5/135023      N30:46:00 W081:41:00 ELEV:   25, 1972
**********************************************************************
FIRST O. F  US:FL004358     30 30:30 081:42(48-89) JACKSONVILLE WSO AP     18.4
ACTIVE   C  US:FL002944     10 30:39 081:28(48-89) FERNANDINA BEACH        15.2
REGULAR1 C  US:GA003465    120 30:44 082:08(48-89) FOLKSTON 9 SW           26.8
REGULAR2 C  US:GA001340     10 31:10 081:30(30-89) BRUNSWICK               29.7
REGULAR3 F  US:GA001345     10 31:09 081:23(48-89) BRUNSWICK FAA AP        31.9
**********************************************************************
* GPS SITE: 7A/137028      N34:20:00 W083:20:00 ELEV:  850, 1966
**********************************************************************
FIRST O. F  US:GA000435    800 33:57 083:19(48-89) ATHENS WSO AP           26.5
ACTIVE   C  US:GA002180    750 34:15 083:29(57-89) COMMERCE 4 NNW          10.3
REGULAR1 C  US:GA002283   1470 34:31 083:32(48-89) CORNELIA               17.0
REGULAR2 C  US:GA008740   1020 34:35 083:19(30-89) TOCCOA                 17.3
REGULAR3 C  US:GA004133    690 34:21 082:55(30-89) HARTWELL                23.8
**********************************************************************
* GPS SITE:  1/151003      N21:01:45 W156:40:33 ELEV:  145, 1984
**********************************************************************
FIRST O. F  US:HI002572     50 20:54 156:26(54-89) KAHULUI WSO AP 398      19.1
ACTIVE   C  US:HI008407    440 20:56 156:40(86-89) PUUKOLII                6.4
REGULAR1 C  US:HI005177     50 20:53 156:41(49-89) LAHAINA 361             9.5
REGULAR2 C  US:HI005286   1620 20:50 156:55(49-89) LANAI CITY 672          19.0
REGULAR3 C  US:HI006534    450 21:09 157:06(57-89) MOLOKAI AP 524          27.3  REJECTED
**********************************************************************
* GPS SITE:  1/151006      N21:01:23 W156:40:35 ELEV:   70, 1981
**********************************************************************
FIRST O. F  US:HI002572     50 20:54 156:26(54-89) KAHULUI WSO AP 398      19.0  REJECTED
ACTIVE   C  US:HI005177     50 20:53 156:41(49-89) LAHAINA 361              8.2
REGULAR1 C  US:HI002307     10 20:56 156:42(68-86) KAANAPALI AIRPORT 453    4.6
REGULAR2 C  US:HI005286   1620 20:50 156:55(49-89) LANAI CITY 672          17.8
REGULAR3 C  US:HI006534    450 21:09 157:06(57-89) MOLOKAI AP 524          27.4  REJECTED
```

```
*****************************************************************
* GPS SITE:  1/151008      N19:36:36 W155:59:21 ELEV:  330, 1985
*****************************************************************
FIRST O. F  US:HI001492     30 19:43 155:04(49-89) HILO WSO AP 87          60.5  REJECTED
ACTIVE   C  US:HI002751   1500 19:32 155:56(49-89) KAINALIU 73.2           6.4
REGULAR1 C  US:HI003911     20 19:44 156:04(81-89) KE-AHOLE PT 68.13       9.9
REGULAR2 C  US:HI007166   1270 19:16 155:53(56-89) OPIHIHALE 2 24.1        24.7
REGULAR3 C  US:HI006198  11150 19:32 155:35(55-89) MAUNA LOA SLOPE OBS 3   27.0  REJECTED
*****************************************************************
* GPS SITE: 6B/157080      N19:49:41 W155:57:11 ELEV:  290, 1975
*****************************************************************
FIRST O. F  US:HI001492     30 19:43 155:04(49-89) HILO WSO AP 87          58.2  REJECTED
ACTIVE   C  US:HI003911     20 19:44 156:04(81-89) KE-AHOLE PT 68.13       9.9
REGULAR1 C  US:HI008422    140 20:02 155:50(77-89) PUUKOHOLA HEIAU 98.1   16.2
REGULAR2 C  US:HI002751   1500 19:32 155:56(49-89) KAINALIU 73.2          20.4
REGULAR3 C  US:HI008830     60 20:15 155:53(56-89) UPOLU POINT USCG 159.  29.5
*****************************************************************
* GPS SITE:  1/161001      N47:46:27 W116:47:20 ELEV: 2150, 1974
*****************************************************************
FIRST O. F  US:WA005844   2140 48:11 117:03(27-89) NEWPORT               30.7  REJECTED
ACTIVE   C  US:ID000667   2080 47:59 116:33(48-89) BAYVIEW MODEL BASIN   18.2
REGULAR1 C  US:ID001956   2160 47:41 116:45( 7-86) COEUR D ALENE R S      6.5
REGULAR2 C  US:ID004831   2320 47:33 116:10( 5-89) KELLOGG               32.9  REJECTED
REGULAR3 C  US:ID008062   2220 47:19 116:34(48-89) ST MARIES             33.3  REJECTED
*****************************************************************
* GPS SITE:  1/161005      N44:37:47 W116:26:35 ELEV: 3232, 1975
*****************************************************************
FIRST O. F  US:OR006294   2150 44:03 116:58(48-89) ONTARIO KSRV          47.7  REJECTED
ACTIVE   C  US:ID002187   2950 44:44 116:26(48-89) COUNCIL               7.2  REJECTED
REGULAR1 C  US:ID001408   2650 44:34 116:41(31-89) CAMBRIDGE            12.6
REGULAR2 C  US:ID001514   4900 44:32 116:03(48-89) CASCADE 1 NW          20.5  REJECTED
REGULAR3 C  US:ID005708   5030 44:54 116:07(30-89) MC CALL               24.6  REJECTED
*****************************************************************
* GPS SITE:  1/161007      N42:35:32 W114:41:40 ELEV: 3771, 1972
*****************************************************************
FIRST O. F  US:ID001303   4160 42:32 113:46(48-89) BURLEY FAA AP          47.4
ACTIVE   C  US:ID001551   3830 42:33 114:52(63-89) CASTLEFORD 2 N         9.2
REGULAR1 C  US:ID004670   3740 42:44 114:31(19-89) JEROME                 13.3
REGULAR2 C  US:ID009303   3960 42:33 114:21(63-89) TWIN FALLS WSO         17.8
REGULAR3 C  US:ID004295   4530 42:21 114:34(48-89) HOLLISTER              18.0
*****************************************************************
* GPS SITE:  1/161009      N42:29:12 W113:22:46 ELEV: 3025, 1975
*****************************************************************
FIRST O. F  US:ID001303   4160 42:32 113:46(48-89) BURLEY FAA AP          20.0
ACTIVE   C  US:ID005980   4210 42:40 113:29(47-89) MINIDOKA DAM           13.5
REGULAR1 C  US:ID005563   4540 42:18 113:17(63-89) MALTA 2 E              13.8
REGULAR2 C  US:ID007968   4200 42:37 113:40(31-89) RUPERT 1 E             17.2
REGULAR3 C  US:ID006877   4210 42:37 113:45(48-89) PAUL 1 ENE             20.9
*****************************************************************
* GPS SITE:  1/161010      N43:40:55 W112:07:00 ELEV: 4775, 1970
*****************************************************************
FIRST O. F  US:ID004457   4730 43:31 112:04(48-89) IDAHO FALLS FAA AP     11.7
ACTIVE   C  US:ID004455   4770 43:29 112:01(52-89) IDAHO FALLS 2 ESE      14.6
REGULAR1 C  US:ID007644   4920 43:49 111:47(77-89) REXBURG RICKS COLLEGE  19.1
REGULAR2 C  US:ID003964   4790 43:58 112:16(48-89) HAMER 4 NW             21.0
REGULAR3 C  US:ID008022   4950 43:58 111:43(48-89) ST ANTHONY 1 WNW       28.0
*****************************************************************
* GPS SITE:  1/161020      N42:44:30 W114:26:19 ELEV: 4097, 1986
*****************************************************************
FIRST O. F  US:ID001303   4160 42:32 113:46(48-89) BURLEY FAA AP          37.1
ACTIVE   C  US:ID004670   3740 42:44 114:31(19-89) JEROME                 4.0
REGULAR1 C  US:ID009293   3670 42:35 114:28(80-89) TWIN FALLS-KMVT        11.0
REGULAR2 C  US:ID009303   3960 42:33 114:21(63-89) TWIN FALLS WSO         14.0
REGULAR3 C  US:ID008380   3950 42:58 114:26(31-89) SHOSHONE 1 WNW         15.5
*****************************************************************
* GPS SITE:  1/161021      N43:38:50 W111:55:40 ELEV: 4849, 1985
*****************************************************************
FIRST O. F  US:ID004457   4730 43:31 112:04(48-89) IDAHO FALLS FAA AP     11.4
ACTIVE   C  US:ID004455   4770 43:29 112:01(52-89) IDAHO FALLS 2 ESE      12.2
REGULAR1 C  US:ID007644   4920 43:49 111:47(77-89) REXBURG RICKS COLLEGE  13.7
REGULAR2 C  US:ID004456   5850 43:21 111:47(55-89) IDAHO FALLS 16 SE      21.8  REJECTED
REGULAR3 C  US:ID008022   4950 43:58 111:43(48-89) ST ANTHONY 1 WNW       24.4
```

```
*********************************************************************
* GPS SITE:  3/163017      N42:35:02 W113:06:19 ELEV: 4254, 1986
*********************************************************************
FIRST O. F  US:ID001303   4160 42:32 113:46(48-89) BURLEY FAA AP          33.9
ACTIVE   C  US:ID005678   4230 42:40 113:00(73-89) MASSACRE ROCK ST PK     7.8
REGULAR1 C  US:ID000227   4320 42:47 112:52(48-89) AMERICAN FALLS 1 SW     18.3
REGULAR2 C  US:ID005980   4210 42:40 113:29(47-89) MINIDOKA DAM           20.1
REGULAR3 C  US:ID005563   4540 42:18 113:17(63-89) MALTA 2 E              21.6
*********************************************************************
* GPS SITE:  3/163023      N43:50:16 W116:45:44 ELEV: 2503, 1985
*********************************************************************
FIRST O. F  US:ID001022   2840 43:34 116:13(40-89) BOISE WSFO AP          33.1
ACTIVE   C  US:ID006844   2220 43:48 116:57(22-89) PARMA EXP STN          9.7
REGULAR1 C  US:OR006179   2180 43:52 117:00(48-89) NYSSA                 12.0
REGULAR2 C  US:ID001380   2370 43:40 116:41( 4-89) CALDWELL              12.5
REGULAR3 C  US:ID002942   2390 43:52 116:28(48-89) EMMETT 2 E            14.9
*********************************************************************
* GPS SITE:  5/165025      N42:22:52 W112:12:20 ELEV: 4979, 1973
*********************************************************************
FIRST O. F  US:ID007211   4450 42:55 112:36(39-89) POCATELLO WSO AP       42.1  REJECTED
ACTIVE   C  US:ID005559   4470 42:10 112:17(48-89) MALAD CITY            15.3
REGULAR1 C  US:ID000347   5170 42:30 112:34(62-89) ARBON 2 NW            20.2  REJECTED
REGULAR2 C  US:ID003732   5550 42:35 111:44(31-89) GRACE                 27.8  REJECTED
REGULAR3 C  US:UT008828   4460 41:55 111:56(48-89) TRENTON               35.0  REJECTED
*********************************************************************
* GPS SITE: 6A/166027      N42:26:44 W111:20:58 ELEV: 6056, 1960
*********************************************************************
FIRST O. F  US:ID005559   4470 42:10 112:17(48-89) MALAD CITY            51.5  REJECTED
ACTIVE   C  US:ID006053   5960 42:19 111:18(31-89) MONTPELIER R S         9.3
REGULAR1 C  US:WY000915   6110 42:15 111:02( 2-89) BORDER 3 N            21.1
REGULAR2 C  US:ID002071   6200 42:43 111:33(48-78) CONDA                 21.3
REGULAR3 C  US:ID003732   5550 42:35 111:44(31-89) GRACE                 21.8  REJECTED
*********************************************************************
* GPS SITE:  1/169032      N47:37:53 W116:52:04 ELEV: 2602, 1988
*********************************************************************
FIRST O. F  US:WA007938   2360 47:38 117:32( 1-89) SPOKANE WSO AP         31.0  REJECTED
ACTIVE   C  US:ID001960   2320 47:47 116:48(86-89) COEUR D ALENE AP       11.0
REGULAR1 C  US:ID008062   2220 47:19 116:34(48-89) ST MARIES             25.9
REGULAR2 C  US:ID000667   2080 47:59 116:33(48-89) BAYVIEW MODEL BASIN    28.4  REJECTED
REGULAR3 C  US:ID004831   2320 47:33 116:10( 5-89) KELLOGG               33.2  REJECTED
*********************************************************************
* GPS SITE:  1/169034      N48:25:06 W116:30:12 ELEV: 2119, 1988
*********************************************************************
FIRST O. F  US:WA005844   2140 48:11 117:03(27-89) NEWPORT               29.9  REJECTED
ACTIVE   C  US:ID008137   2100 48:17 116:34(10-89) SANDPOINT EXP STATION  9.8
REGULAR1 C  US:ID007386   2380 48:21 116:50(11-89) PRIEST RIVER EXP STN   15.9  REJECTED
REGULAR2 C  US:ID001079   1860 48:41 116:19( 7-89) BONNERS FERRY 1 SW     20.2
REGULAR3 C  US:MT008390   1930 48:29 115:55(60-89) TROY                   27.3  REJECTED
*********************************************************************
* GPS SITE:  1/171002      N42:18:30 W089:36:00 ELEV:  797, 1986
*********************************************************************
FIRST O. F  US:WI004961    860 43:08 089:20(48-89) MADISON WSO AP         58.6
ACTIVE   C  US:IL003262    750 42:18 089:36(48-89) FREEPORT WASTE WTR PL   0.6
REGULAR1 C  US:IL008293    960 42:21 090:00(48-89) STOCKTON               20.7
REGULAR2 C  US:WI001078    790 42:37 089:23(48-89) BRODHEAD               24.0
REGULAR3 C  US:IL005901    700 42:05 089:59( 1-89) MOUNT CARROLL          25.0
*********************************************************************
* GPS SITE:  1/171003      N38:37:03 W089:38:03 ELEV:  467, 1986
*********************************************************************
FIRST O. F  US:MO007455    540 38:45 090:22(41-89) SAINT LOUIS WSCMO AP   40.6
ACTIVE   C  US:IL000510    450 38:30 089:51(48-89) BELLEVILLE SIU RSCH C  14.2
REGULAR1 C  US:IL001290    500 38:38 089:20(62-89) CARLYLE RESERVOIR      16.3
REGULAR2 C  US:IL006011    520 38:23 089:20(48-89) NASHVILLE 4 NE         22.9
REGULAR3 C  US:IL001160    400 38:34 090:12(69-89) CAHOKIA                30.8
*********************************************************************
* GPS SITE:  4/174074      N42:18:00 W089:35:00 ELEV:  819, 1986
*********************************************************************
FIRST O. F  US:WI004961    860 43:08 089:20(48-89) MADISON WSO AP         58.9
ACTIVE   C  US:IL003262    750 42:18 089:36(48-89) FREEPORT WASTE WTR PL   0.9
REGULAR1 C  US:IL008293    960 42:21 090:00(48-89) STOCKTON               21.6
REGULAR2 C  US:WI001078    790 42:37 089:23(48-89) BRODHEAD               24.1
REGULAR3 C  US:IL005901    700 42:05 089:59( 1-89) MOUNT CARROLL          25.4
```

```
**********************************************************************
* GPS SITE:  4/174082      N38:36:00 W089:25:00 ELEV:  474, 1986
**********************************************************************
FIRST O. F  US:MO007455    540 38:45 090:22(41-89) SAINT LOUIS WSCMO AP      52.3
ACTIVE   C  US:IL001290    500 38:38 089:20(62-89) CARLYLE RESERVOIR          5.1
REGULAR1 C  US:IL006011    520 38:23 089:20(48-89) NASHVILLE 4 NE            15.6
REGULAR2 C  US:IL000510    450 38:30 089:51(48-89) BELLEVILLE SIU RSCH C     24.4
REGULAR3 C  US:IL007636    550 38:38 088:57(48-89) SALEM                     25.3
**********************************************************************
* GPS SITE:  5/175020      N38:36:00 W089:32:00 ELEV:  459, 1986
**********************************************************************
FIRST O. F  US:MO007455    540 38:45 090:22(41-89) SAINT LOUIS WSCMO AP      46.2
ACTIVE   C  US:IL001290    500 38:38 089:20(62-89) CARLYLE RESERVOIR         11.1
REGULAR1 C  US:IL000510    450 38:30 089:51(48-89) BELLEVILLE SIU RSCH C     18.5
REGULAR2 C  US:IL006011    520 38:23 089:20(48-89) NASHVILLE 4 NE            18.5
REGULAR3 C  US:IL007636    550 38:38 088:57(48-89) SALEM                     31.6
**********************************************************************
* GPS SITE: 7B/175151      N41:28:30 W090:19:30 ELEV:  657, 1966
**********************************************************************
FIRST O. F  US:IL005751    580 41:27 090:30(48-89) MOLINE WSO AP              9.2
ACTIVE   C  US:IL003384    640 41:27 090:10(48-89) GENESEO                    8.4
REGULAR1 C  US:IA004705    580 41:35 090:25(48-89) LE CLAIRE L AND D 14       8.9
REGULAR2 F  US:IA002069    570 41:31 090:34(48-84) DAVENPORT L AND D 15      12.8
REGULAR3 C  US:IA001635    590 41:48 090:16(48-89) CLINTON 1                 22.6
**********************************************************************
* GPS SITE: 7B/175217      N40:24:00 W089:01:00 ELEV:  830, 1965
**********************************************************************
FIRST O. F  US:IL006711    650 40:40 089:41(48-89) PEORIA WSO AP             39.6
ACTIVE   C  US:IL002993    730 40:15 088:39(48-89) FARMER CITY 2 W           21.9
REGULAR1 C  US:IL005079    580 40:10 089:22( 6-89) LINCOLN                   24.5
REGULAR2 C  US:IL001475    710 40:44 088:44(48-89) CHENOA                    27.4
REGULAR3 C  US:IL005712    750 40:54 089:03( 1-89) MINONK                    34.6
**********************************************************************
* GPS SITE: 7A/175423      N40:33:30 W089:07:30 ELEV:  830, 1966
**********************************************************************
FIRST O. F  US:IL006711    650 40:40 089:41(48-89) PEORIA WSO AP             30.3
ACTIVE   C  US:IL006200    790 40:31 089:00(77-89) NORMAL                     7.2
REGULAR1 C  US:IL001475    710 40:44 088:44(48-89) CHENOA                    23.8
REGULAR2 C  US:IL005712    750 40:54 089:03( 1-89) MINONK                    23.9
REGULAR3 C  US:IL005079    580 40:10 089:22( 6-89) LINCOLN                   29.9
**********************************************************************
* GPS SITE: 7A/175453      N38:17:30 W088:57:30 ELEV:  503, 1969
**********************************************************************
FIRST O. F  US:MO007455    540 38:45 090:22(41-89) SAINT LOUIS WSCMO AP      82.5
ACTIVE   C  US:IL005943    490 38:21 088:52( 1-89) MOUNT VERNON 3 NE          6.4
REGULAR1 C  US:IL007187    460 38:02 088:59(74-89) REND LAKE DAM             17.9
REGULAR2 C  US:IL006011    520 38:23 089:20(48-89) NASHVILLE 4 NE            21.3
REGULAR3 C  US:IL007636    550 38:38 088:57(48-89) SALEM                     23.6
**********************************************************************
* GPS SITE:  5/175843      N42:07:00 W089:00:00 ELEV:  780, 1982
**********************************************************************
FIRST O. F  US:WI004961    860 43:08 089:20(48-89) MADISON WSO AP            72.2
ACTIVE   C  US:IL007382    720 42:12 089:06(51-89) ROCKFORD WSO AP            7.7
REGULAR1 C  US:IL007354    780 41:54 089:04(78-89) ROCHELLE                  15.3
REGULAR2 C  US:IL002223    840 41:57 088:46(66-89) DE KALB                   16.6
REGULAR3 C  US:IL005326    820 42:15 088:36( 1-89) MARENGO                   22.5
**********************************************************************
* GPS SITE:  5/175849      N40:20:00 W088:10:00 ELEV:  765, 1971
**********************************************************************
FIRST O. F  US:IL006711    650 40:40 089:41(48-89) PEORIA WSO AP             83.0
ACTIVE   C  US:IL007150    740 40:19 088:10(48-89) RANTOUL                    1.2
REGULAR1 C  US:IL008740    740 40:06 088:14( 3-89) URBANA                    16.5
REGULAR2 C  US:IL002993    730 40:15 088:39(48-89) FARMER CITY 2 W           26.1
REGULAR3 C  US:IL004198    710 40:28 087:40( 2-89) HOOPESTON 1 NE            27.9
**********************************************************************
* GPS SITE:  5/175854      N40:47:16 W089:39:51 ELEV:  693, 1980
**********************************************************************
FIRST O. F  US:IL006711    650 40:40 089:41(48-89) PEORIA WSO AP              8.4
ACTIVE   C  US:IL007004    740 40:56 089:46(48-89) PRINCEVILLE               11.4
REGULAR1 C  US:IL004805    600 41:01 089:22(50-89) LACON 2 E                 22.2
REGULAR2 C  US:IL003335    860 41:10 090:03( 1-89) GALVA                     33.0
REGULAR3 C  US:IL005712    750 40:54 089:03( 1-89) MINONK                    33.1
```

```
**********************************************************************
* GPS SITE:  5/175869      N40:45:53 W089:40:12 ELEV:  669, 1979
**********************************************************************
FIRST O. F  US:IL006711    650 40:40 089:41(48-89) PEORIA WSO AP            6.8
ACTIVE   C  US:IL007004    740 40:56 089:46(48-89) PRINCEVILLE             12.7
REGULAR1 C  US:IL004805    600 41:01 089:22(50-89) LACON 2 E               23.5
REGULAR2 C  US:IL005712    750 40:54 089:03( 1-89) MINONK                  33.8
REGULAR3 C  US:IL003940    460 40:21 090:01(48-89) HAVANA 4 NNE            33.9
**********************************************************************
* GPS SITE:  5/175908      N37:47:24 W089:03:04 ELEV:  465, 1970
**********************************************************************
FIRST O. F  US:KY006110    410 37:04 088:46(49-89) PADUCAH WSO             52.3
ACTIVE   C  US:IL001265    390 37:44 089:10(10-89) CARBONDALE SEWAGE PLA    7.4
REGULAR1 C  US:IL005342    480 37:46 088:54(48-89) MARION 4 NNE             8.4
REGULAR2 C  US:IL007187    460 38:02 088:59(74-89) REND LAKE DAM           17.2
REGULAR3 C  US:IL002483    420 38:00 089:15( 1-89) DU QUOIN 4 SE           18.1
**********************************************************************
* GPS SITE: 6A/176050      N38:32:00 W090:05:37 ELEV:  542, 1959
**********************************************************************
FIRST O. F  US:MO007455    540 38:45 090:22(41-89) SAINT LOUIS WSCMO AP     21.4
ACTIVE   C  US:IL001160    400 38:34 090:12(69-89) CAHOKIA                  6.7
REGULAR1 C  US:IL000510    450 38:30 089:51(48-89) BELLEVILLE SIU RSCH C    12.8
REGULAR2 C  US:IL009002    650 38:20 090:09(48-89) WATERLOO                 14.3
REGULAR3 C  US:IL000137    430 38:53 090:11(48-89) ALTON DAM 26             24.8
**********************************************************************
* GPS SITE: 7A/177937      N41:10:09 W089:55:32 ELEV:  749, 1960
**********************************************************************
FIRST O. F  US:IL005751    580 41:27 090:30(48-89) MOLINE WSO AP            35.6
ACTIVE   C  US:IL004710    780 41:15 089:54(48-89) KEWANEE 1 E              5.7
REGULAR1 C  US:IL003335    860 41:10 090:03( 1-89) GALVA                    6.5
REGULAR2 C  US:IL007004    740 40:56 089:46(48-89) PRINCEVILLE              18.3
REGULAR3 C  US:IL003384    640 41:27 090:10(48-89) GENESEO                  23.1
**********************************************************************
* GPS SITE:  5/179267      N41:30:30 W090:19:00 ELEV:  592, 1966
**********************************************************************
FIRST O. F  US:IL005751    580 41:27 090:30(48-89) MOLINE WSO AP            10.3
ACTIVE   C  US:IA004705    580 41:35 090:25(48-89) LE CLAIRE L AND D 14     7.3
REGULAR1 C  US:IL003384    640 41:27 090:10(48-89) GENESEO                  8.8
REGULAR2 F  US:IA002069    570 41:31 090:34(48-84) DAVENPORT L AND D 15     13.0
REGULAR3 C  US:IA001635    590 41:48 090:16(48-89) CLINTON 1                20.3
**********************************************************************
* GPS SITE: 7B/179327      N40:24:00 W089:01:00 ELEV:  830, 1965
**********************************************************************
FIRST O. F  US:IL006711    650 40:40 089:41(48-89) PEORIA WSO AP            39.6
ACTIVE   C  US:IL002993    730 40:15 088:39(48-89) FARMER CITY 2 W          21.9
REGULAR1 C  US:IL005079    580 40:10 089:22( 6-89) LINCOLN                  24.5
REGULAR2 C  US:IL001475    710 40:44 088:44(48-89) CHENOA                   27.4
REGULAR3 C  US:IL005712    750 40:54 089:03( 1-89) MINONK                   34.6
**********************************************************************
* GPS SITE:  1/181028      N38:11:52 W087:00:57 ELEV:  441, 1975
**********************************************************************
FIRST O. F  US:KY006110    410 37:04 088:46(49-89) PADUCAH WSO             123.7
ACTIVE   C  US:IN007724    510 38:10 086:48(59-89) SAINT MEINRAD            11.9
REGULAR1 C  US:IN008352    440 38:17 087:15(62-89) SPURGEON 2 N             14.0
REGULAR2 C  US:IN008698    400 37:57 086:46(48-89) TELL CITY POWER PLANT    21.8
REGULAR3 C  US:IN002309    690 38:27 086:42(55-89) DUBOIS S IND FORAGE F    24.4
**********************************************************************
* GPS SITE:  1/181037      N37:53:47 W087:13:13 ELEV:  392, 1983
**********************************************************************
FIRST O. F  US:KY006110    410 37:04 088:46(49-89) PADUCAH WSO             102.4
ACTIVE   C  US:KY006091    410 37:46 087:09(32-89) OWENSBORO 3 W            9.7
REGULAR1 C  US:IN002731    390 37:58 087:33(49-89) EVANSVILLE               18.6
REGULAR2 C  US:IN002738    380 38:03 087:32(48-89) EVANSVILLE WSO AP        20.1
REGULAR3 C  US:KY003762    430 37:45 087:38(32-89) HENDERSON 7 SSW          24.7
**********************************************************************
* GPS SITE:  2/182008      N40:56:24 W085:02:54 ELEV:  793, 1980
**********************************************************************
FIRST O. F  US:IN003037    800 41:00 085:12(48-89) FORT WAYNE WSO AP        8.9
ACTIVE   C  US:IN000830    810 40:45 085:10(71-89) BLUFFTON                 14.5
REGULAR1 C  US:IN000676    860 40:40 084:57(10-89) BERNE                    19.6
REGULAR2 C  US:IN004181    730 40:51 085:30(48-89) HUNTINGTON WATERWORKS    24.4
REGULAR3 C  US:OH008609    800 40:50 084:34(36-89) VAN WERT                 26.2
```

```
**********************************************************************
* GPS SITE:  2/182009      N40:01:35 W085:59:36 ELEV:  785, 1981
**********************************************************************
FIRST O. F  US:IN003037    800 41:00 085:12(48-89) FORT WAYNE WSO AP        79.1
ACTIVE   C  US:IN006506    800 39:54 085:59(48-89) OAKLANDON GEIST RESVR     8.7
REGULAR1 C  US:IN005217    740 39:58 086:03(76-88) LYNWOOD FARMS             5.1
REGULAR2 C  US:IN000177    850 40:06 085:43(48-89) ANDERSON SEWAGE PLANT    15.5
REGULAR3 C  US:IN002638    840 40:16 085:51(48-89) ELWOOD                   18.2
**********************************************************************
* GPS SITE:  3/183002      N40:35:50 W087:22:40 ELEV:  831, 1976
**********************************************************************
FIRST O. F  US:IN003037    800 41:00 085:12(48-89) FORT WAYNE WSO AP       117.4
ACTIVE   C  US:IN004527    690 40:46 087:27(48-89) KENTLAND                 12.3
REGULAR1 C  US:IL004198    710 40:28 087:40( 2-89) HOOPESTON 1 NE           17.7
REGULAR2 C  US:IN009430    710 40:28 087:00( 1-89) WEST LAFAYETTE 6 NW      21.8
REGULAR3 C  US:IL009021    620 40:47 087:46(48-89) WATSEKA 2 NW             24.1
**********************************************************************
* GPS SITE:  3/183003      N41:15:56 W086:15:56 ELEV:  810, 1975
**********************************************************************
FIRST O. F  US:IN003037    800 41:00 085:12(48-89) FORT WAYNE WSO AP        59.6
ACTIVE   C  US:IN007028    790 41:20 086:19( 5-89) PLYMOUTH POWER SUBSTN     4.0
REGULAR1 C  US:IN007482    770 41:04 086:13(48-89) ROCHESTER                15.3
REGULAR2 C  US:IN004550    750 41:05 086:31(77-89) KEWANNA 7 NW             18.4
REGULAR3 C  US:IN009240    810 41:14 085:52(48-89) WARSAW                   21.9
**********************************************************************
* GPS SITE:  3/183030      N40:13:07 W085:32:43 ELEV:  898, 1981
**********************************************************************
FIRST O. F  US:IN003037    800 41:00 085:12(48-89) FORT WAYNE WSO AP        56.9
ACTIVE   C  US:IN006020    940 40:13 085:25(62-89) MUNCIE BALL STATE UNI     6.8
REGULAR1 C  US:IN000177    850 40:06 085:43(48-89) ANDERSON SEWAGE PLANT    12.2
REGULAR2 C  US:IN002638    840 40:16 085:51(48-89) ELWOOD                   16.4
REGULAR3 C  US:IN003777    930 40:28 085:27(48-89) HARTFORD CITY 4 NW       17.9
**********************************************************************
* GPS SITE:  3/183031      N37:56:35 W087:44:07 ELEV:  380, 1976
**********************************************************************
FIRST O. F  US:KY006110    410 37:04 088:46(49-89) PADUCAH WSO              82.9
ACTIVE   C  US:IN006001    420 37:57 087:53( 1-89) MOUNT VERNON              8.1
REGULAR1 C  US:IN002731    390 37:58 087:33(49-89) EVANSVILLE               10.2
REGULAR2 C  US:IN002738    380 38:03 087:32(48-89) EVANSVILLE WSO AP        13.3
REGULAR3 C  US:KY003762    430 37:45 087:38(32-89) HENDERSON 7 SSW          14.4
**********************************************************************
* GPS SITE:  4/184021      N39:57:29 W086:09:25 ELEV:  855, 1975
**********************************************************************
FIRST O. F  US:IN003037    800 41:00 085:12(48-89) FORT WAYNE WSO AP        87.8
ACTIVE   C  US:IN006506    800 39:54 085:59(48-89) OAKLANDON GEIST RESVR     10.0
REGULAR1 C  US:IN005217    740 39:58 086:03(76-88) LYNWOOD FARMS             5.7
REGULAR2 C  US:IN009557    940 40:00 086:21( 1-89) WHITESTOWN               10.6
REGULAR3 C  US:IN004272    750 39:45 086:07(51-89) INDIANAPOLIS SE SIDE     14.5
**********************************************************************
* GPS SITE:  4/184042      N37:56:37 W087:44:08 ELEV:  450, 1974
**********************************************************************
FIRST O. F  US:KY006110    410 37:04 088:46(49-89) PADUCAH WSO              82.9
ACTIVE   C  US:IN006001    420 37:57 087:53( 1-89) MOUNT VERNON              8.1
REGULAR1 C  US:IN002731    390 37:58 087:33(49-89) EVANSVILLE               10.2
REGULAR2 C  US:IN002738    380 38:03 087:32(48-89) EVANSVILLE WSO AP        13.2
REGULAR3 C  US:KY003762    430 37:45 087:38(32-89) HENDERSON 7 SSW          14.5
**********************************************************************
* GPS SITE:  5/185022      N39:37:40 W086:04:30 ELEV:  836, 1972
**********************************************************************
FIRST O. F  US:IN003037    800 41:00 085:12(48-89) FORT WAYNE WSO AP       105.4
ACTIVE   C  US:IN006304    790 39:33 086:06(71-89) NEW WHITELAND             5.5
REGULAR1 C  US:IN004272    750 39:45 086:07(51-89) INDIANAPOLIS SE SIDE      8.7
REGULAR2 C  US:IN004259    790 39:44 086:16(48-89) INDIANAPOLIS WSFO        12.5
REGULAR3 C  US:IN007999    750 39:31 085:47(48-89) SHELBYVILLE SEWAGE PL    17.3
**********************************************************************
* GPS SITE:  5/185043      N38:02:00 W087:39:37 ELEV:  446, 1969
**********************************************************************
FIRST O. F  US:KY006110    410 37:04 088:46(49-89) PADUCAH WSO              90.2
ACTIVE   C  US:IN002738    380 38:03 087:32(48-89) EVANSVILLE WSO AP         7.0
REGULAR1 C  US:IN002731    390 37:58 087:33(49-89) EVANSVILLE                7.6
REGULAR2 C  US:IN006001    420 37:57 087:53( 1-89) MOUNT VERNON             13.5
REGULAR3 C  US:KY003762    430 37:45 087:38(32-89) HENDERSON 7 SSW          19.6
```

```
*********************************************************************
* GPS SITE: 7B/185518      N40:28:23 W086:51:23 ELEV:  543, 1970
*********************************************************************
FIRST O. F  US:IN003037    800 41:00 085:12(48-89) FORT WAYNE WSO AP        94.1
ACTIVE   C  US:IN009424    600 40:25 086:56(48-89) WEST LAFAYETTE FAA AP     5.6
REGULAR1 C  US:IN009430    710 40:28 087:00( 1-89) WEST LAFAYETTE 6 NW       7.6
REGULAR2 C  US:IN004715    600 40:21 086:52(54-89) LAFAYETTE 5 S            8.5
REGULAR3 C  US:IN002149    560 40:37 086:40(48-89) DELPHI 3 NNE            14.1
*********************************************************************
* GPS SITE: 7B/185528      N41:39:00 W086:39:00 ELEV:  760, 1962
*********************************************************************
FIRST O. F  US:IN003037    800 41:00 085:12(48-89) FORT WAYNE WSO AP        87.7
ACTIVE   C  US:IN004837    810 41:36 086:43( 1-89) LA PORTE                 4.9
REGULAR1 C  US:IN008187    790 41:42 086:19(48-89) SOUTH BEND WSO AP        17.6
REGULAR2 C  US:IN009222    740 41:26 086:56(61-89) WANATAH 2 WNW            21.0
REGULAR3 C  US:IN008999    800 41:31 087:02( 1-89) VALPARAISO WATERWORKS    21.9
*********************************************************************
* GPS SITE: 7B/185538      N41:40:00 W086:37:00 ELEV:  820, 1962
*********************************************************************
FIRST O. F  US:IN003037    800 41:00 085:12(48-89) FORT WAYNE WSO AP        86.8
ACTIVE   C  US:IN004837    810 41:36 086:43( 1-89) LA PORTE                 6.9
REGULAR1 C  US:IN008187    790 41:42 086:19(48-89) SOUTH BEND WSO AP        15.7
REGULAR2 C  US:IN009222    740 41:26 086:56(61-89) WANATAH 2 WNW            23.0
REGULAR3 C  US:IN008999    800 41:31 087:02( 1-89) VALPARAISO WATERWORKS    23.9
*********************************************************************
* GPS SITE: 6A/186012      N38:10:11 W087:29:32 ELEV:  472, 1977
*********************************************************************
FIRST O. F  US:KY006110    410 37:04 088:46(49-89) PADUCAH WSO             103.3
ACTIVE   C  US:IN002738    380 38:03 087:32(48-89) EVANSVILLE WSO AP         8.6
REGULAR1 C  US:IN007125    480 38:21 087:35( 1-89) PRINCETON 1 W            13.4
REGULAR2 C  US:IN002731    390 37:58 087:33(49-89) EVANSVILLE               14.4
REGULAR3 C  US:IN008352    440 38:17 087:15(62-89) SPURGEON 2 N             15.3
*********************************************************************
* GPS SITE:  9/189020      N40:35:11 W085:33:09 ELEV:  860, 1964
*********************************************************************
FIRST O. F  US:IN003037    800 41:00 085:12(48-89) FORT WAYNE WSO AP        34.0
ACTIVE   C  US:IN005337    790 40:34 085:40( 1-89) MARION 2 N               6.2
REGULAR1 C  US:IN003777    930 40:28 085:27(48-89) HARTFORD CITY 4 NW       9.9
REGULAR2 C  US:IN009138    730 40:47 085:49(48-89) WABASH                   19.4
REGULAR3 C  US:IN004176    800 40:53 085:30(48-79) HUNTINGTON               20.7
*********************************************************************
* GPS SITE:  1/191044      N42:29:41 W091:38:40 ELEV: 1074, 1971
*********************************************************************
FIRST O. F  US:IA001314    860 41:53 091:42(53-89) CEDAR RAPIDS FAA AP      42.3
ACTIVE   C  US:IA005086        42:28 091:27(76-89) MANCHESTER #2            10.1
REGULAR1 C  US:IA004052    880 42:27 091:55(48-81) INDEPENDENCE 2 SW        14.2
REGULAR2 C  US:IA006200   1010 42:39 091:55(48-89) OELWEIN 2 S              17.5
REGULAR3 C  US:IA002864   1010 42:50 091:48( 1-89) FAYETTE                  24.7
*********************************************************************
* GPS SITE:  3/193006      N41:48:35 W090:28:13 ELEV:  686, 1975
*********************************************************************
FIRST O. F  US:IL005751    580 41:27 090:30(48-89) MOLINE WSO AP            24.9
ACTIVE   C  US:IA001635    590 41:48 090:16(48-89) CLINTON 1                10.5
REGULAR1 C  US:IA004705    580 41:35 090:25(48-89) LE CLAIRE L AND D 14     15.9
REGULAR2 C  US:IL003290    590 41:54 090:09(48-89) FULTON DAM 13            17.6
REGULAR3 F  US:IA002069    570 41:31 090:34(48-84) DAVENPORT L AND D 15     20.8
*********************************************************************
* GPS SITE:  3/193009      N41:57:52 W091:40:13 ELEV: 1115, 1975
*********************************************************************
FIRST O. F  US:IA001314    860 41:53 091:42(53-89) CEDAR RAPIDS FAA AP       5.8
ACTIVE   C  US:IA001319    820 42:02 091:35( 1-89) CEDAR RAPIDS 1            6.5
REGULAR1 C  US:IA000213    810 42:07 091:18(48-89) ANAMOSA 1 WNW            21.7
REGULAR2 C  US:IA008568    850 42:10 092:00(48-89) VINTON                   21.9
REGULAR3 C  US:IA004101    640 41:39 091:32(48-89) IOWA CITY                22.8
*********************************************************************
* GPS SITE:  3/193028      N41:40:24 W091:37:14 ELEV:  748, 1984
*********************************************************************
FIRST O. F  US:IA001314    860 41:53 091:42(53-89) CEDAR RAPIDS FAA AP      15.1
ACTIVE   C  US:IA004101    640 41:39 091:32(48-89) IOWA CITY                4.8
REGULAR1 C  US:IA009067    810 41:40 092:01(48-89) WILLIAMSBURG             20.5
REGULAR2 C  US:IA001319    820 42:02 091:35( 1-89) CEDAR RAPIDS 1           24.9
REGULAR3 C  US:IA008266    770 41:47 091:07( 2-89) TIPTON                   27.1
```

```
**********************************************************************
* GPS SITE:  3/193033      N41:33:53 W091:32:41 ELEV:  641, 1983
**********************************************************************
FIRST O. F  US:IA001314    860 41:53 091:42(53-89) CEDAR RAPIDS FAA AP      23.4
ACTIVE   C  US:IA004101    640 41:39 091:32(48-89) IOWA CITY                 5.9
REGULAR1 C  US:IA008688    760 41:17 091:41( 1-89) WASHINGTON               20.7
REGULAR2 C  US:IA001731    670 41:15 091:22(48-89) COLUMBUS JUNCTION 2 S     23.6
REGULAR3 C  US:IA009067    810 41:40 092:01(48-89) WILLIAMSBURG              25.4
**********************************************************************
* GPS SITE:  3/193055      N42:26:56 W093:35:21 ELEV: 1186, 1968
**********************************************************************
FIRST O. F  US:IA005235   1190 43:10 093:20(48-89) MASON CITY FAA AP        51.2
ACTIVE   C  US:IA008806   1170 42:28 093:48( 5-89) WEBSTER CITY            10.8
REGULAR1 C  US:IA004142   1130 42:32 093:16(48-89) IOWA FALLS              17.5
REGULAR2 C  US:IA001541   1180 42:44 093:44(48-89) CLARION                 21.0
REGULAR3 C  US:IA002573   1090 42:21 093:06(49-89) ELDORA                  25.9
**********************************************************************
* GPS SITE:  5/195042      N42:34:52 W093:32:00 ELEV: 1183, 1975
**********************************************************************
FIRST O. F  US:IA005235   1190 43:10 093:20(48-89) MASON CITY FAA AP        41.7
ACTIVE   C  US:IA004142   1130 42:32 093:16(48-89) IOWA FALLS              14.0
REGULAR1 C  US:IA001541   1180 42:44 093:44(48-89) CLARION                 14.6
REGULAR2 C  US:IA008806   1170 42:28 093:48( 5-89) WEBSTER CITY            15.7
REGULAR3 C  US:IA003584   1220 42:45 093:12( 1-89) HAMPTON 2 NW             20.6
**********************************************************************
* GPS SITE:  5/195046      N42:36:57 W093:29:49 ELEV: 1142, 1975
**********************************************************************
FIRST O. F  US:IA005235   1190 43:10 093:20(48-89) MASON CITY FAA AP        38.9
ACTIVE   C  US:IA004142   1130 42:32 093:16(48-89) IOWA FALLS              13.0
REGULAR1 C  US:IA001541   1180 42:44 093:44(48-89) CLARION                 14.5
REGULAR2 C  US:IA003584   1220 42:45 093:12( 1-89) HAMPTON 2 NW             17.7
REGULAR3 C  US:IA008806   1170 42:28 093:48( 5-89) WEBSTER CITY            18.6
**********************************************************************
* GPS SITE: 6A/196049      N41:39:35 W091:12:56 ELEV:  754, 1962
**********************************************************************
FIRST O. F  US:IA001314    860 41:53 091:42(53-89) CEDAR RAPIDS FAA AP      29.4
ACTIVE   C  US:IA008266    770 41:47 091:07( 2-89) TIPTON                    9.9
REGULAR1 C  US:IA004101    640 41:39 091:32(48-89) IOWA CITY                16.4
REGULAR2 C  US:IA005837    550 41:24 091:04(48-89) MUSCATINE                19.5
REGULAR3 C  US:IA001731    670 41:15 091:22(48-89) COLUMBUS JUNCTION 2 S     29.4
**********************************************************************
* GPS SITE:  2/196150      N42:20:26 W094:57:17 ELEV: 1229, 1952
**********************************************************************
FIRST O. F  US:IA007708   1100 42:24 096:23(48-89) SIOUX CITY WSO AP        73.1
ACTIVE   C  US:IA007312   1200 42:26 095:00(48-89) SAC CITY                 6.8
REGULAR1 C  US:IA004547   1240 42:16 094:44(48-72) LAKE CITY               12.4
REGULAR2 C  US:IA007161   1210 42:24 094:37( 1-89) ROCKWELL CITY           17.8
REGULAR3 C  US:IA001233   1240 42:04 094:51(48-89) CARROLL                  19.7
**********************************************************************
* GPS SITE: 7B/199116      N43:28:24 W093:21:02 ELEV: 1268, 1972
**********************************************************************
FIRST O. F  US:IA005235   1190 43:10 093:20(48-89) MASON CITY FAA AP        21.2
ACTIVE   C  US:IA006103   1210 43:27 093:13(48-89) NORTHWOOD                6.9
REGULAR1 C  US:MN000075   1230 43:37 093:25(48-89) ALBERT LEA 3 SE          10.4
REGULAR2 C  US:IA002977   1300 43:17 093:38(48-89) FOREST CITY 2 NNE        19.3
REGULAR3 C  US:MN000355   1220 43:37 093:00(48-89) AUSTIN 3 S              20.2
**********************************************************************
* GPS SITE: 7B/199126      N41:35:54 W090:25:49 ELEV:  701, 1964
**********************************************************************
FIRST O. F  US:IL005751    580 41:27 090:30(48-89) MOLINE WSO AP            10.9
ACTIVE   C  US:IA004705    580 41:35 090:25(48-89) LE CLAIRE L AND D 14      1.3
REGULAR1 F  US:IA002069    570 41:31 090:34(48-84) DAVENPORT L AND D 15      9.0
REGULAR2 C  US:IA001635    590 41:48 090:16(48-89) CLINTON 1                16.3
REGULAR3 C  US:IL003384    640 41:27 090:10(48-89) GENESEO                  17.1
**********************************************************************
* GPS SITE:  1/201005      N38:37:00 W095:14:00 ELEV:  910, 1977
**********************************************************************
FIRST O. F  US:KS008167    870 39:04 095:38(48-89) TOPEKA WSFO AP           37.8
ACTIVE   C  US:KS006128    900 38:37 095:17( 1-89) OTTAWA                    2.7
REGULAR1 C  US:KS006498   1060 38:39 095:34(63-89) POMONA LAKE              18.2
REGULAR2 C  US:KS006209    860 38:35 094:52(48-89) PAOLA                    20.0
REGULAR3 C  US:KS001612    980 38:56 095:20(77-89) CLINTON LAKE             22.5
```

```
*********************************************************************
* GPS SITE: 6A/201006      N37:02:00 W095:42:00 ELEV:  760, 1971
*********************************************************************
FIRST O. F  US:OK008992    670 36:11 095:54(48-89) TULSA WSO AP          59.7
ACTIVE   C  US:KS003954    780 37:15 095:42( 1-89) INDEPENDENCE          15.0
REGULAR1 C  US:KS005536    800 37:11 095:27(51-89) MOUND VALLEY 3 WSW    17.2
REGULAR2 C  US:KS002430    790 37:17 095:48(64-89) ELK CITY LAKE         18.1
REGULAR3 C  US:OK006485    730 36:42 095:38(48-89) NOWATA                23.3
*********************************************************************
* GPS SITE:  1/201009      N37:59:00 W098:45:00 ELEV: 1922, 1985
*********************************************************************
FIRST O. F  US:KS002164   2580 37:46 099:58(48-89) DODGE CITY WSO AP     68.1
ACTIVE   C  US:KS003847   1870 38:06 098:39(48-89) HUDSON                9.7
REGULAR1 C  US:KS004530   2000 38:11 099:05( 3-89) LARNED               22.8
REGULAR2 C  US:KS006549   1900 37:38 098:48(39-89) PRATT 4 W             24.3
REGULAR3 C  US:KS003218   1850 38:21 098:46(48-89) GREAT BEND            25.3
*********************************************************************
* GPS SITE:  1/201010      N37:39:00 W099:45:00 ELEV: 2373, 1980
*********************************************************************
FIRST O. F  US:KS002164   2580 37:46 099:58(48-89) DODGE CITY WSO AP     14.3
ACTIVE   C  US:KS003239   2230 37:37 099:18(39-89) GREENSBURG            24.8
REGULAR1 C  US:KS004333   2170 37:55 099:25(48-89) KINSLEY               25.9
REGULAR2 C  US:KS000365   1970 37:12 099:46( 1-89) ASHLAND               31.1
REGULAR3 C  US:KS001522   2730 37:49 100:21(39-89) CIMARRON              34.8
*********************************************************************
* GPS SITE:  3/203013      N38:57:00 W094:46:00 ELEV: 1010, 1984
*********************************************************************
FIRST O. F  US:MO004359    740 39:07 094:35(48-89) KANSAS CITY FSS       15.1
ACTIVE   C  US:KS005972   1060 38:53 094:46(39-89) OLATHE 3 E            4.6
REGULAR1 C  US:KS003686   1010 38:40 094:54(85-89) HILLSDALE LAKE        20.8
REGULAR2 C  US:MO004158   1010 39:04 094:23(73-89) INDEPENDENCE 2        22.1
REGULAR3 C  US:KS004588    860 39:16 094:53(48-89) LEAVENWORTH 4 SSE     22.7
*********************************************************************
* GPS SITE:  3/203015      N38:00:00 W100:51:00 ELEV: 2879, 1985
*********************************************************************
FIRST O. F  US:KS002975   2880 37:56 100:43(48-89) GARDEN CITY FAA AP     8.6
ACTIVE   C  US:KS002980   2870 37:59 100:49(48-89) GARDEN CITY EXP STATI  2.2
REGULAR1 C  US:KS004464   3000 37:56 101:15(39-89) LAKIN                 22.3
REGULAR2 C  US:KS001522   2730 37:49 100:21(39-89) CIMARRON              30.1
REGULAR3 C  US:KS007271   2970 38:29 100:54(48-89) SCOTT CITY            33.5
*********************************************************************
* GPS SITE:  3/203060      N39:07:00 W094:49:00 ELEV:  986, 1984
*********************************************************************
FIRST O. F  US:MO004359    740 39:07 094:35(48-89) KANSAS CITY FSS       12.5
ACTIVE   C  US:KS004588    860 39:16 094:53(48-89) LEAVENWORTH 4 SSE     11.0
REGULAR1 F  US:MO004358    970 39:19 094:43(72-89) KANSAS CITY WSO AP    14.8
REGULAR2 C  US:KS005972   1060 38:53 094:46(39-89) OLATHE 3 E            16.3
REGULAR3 C  US:MO007862    890 39:23 094:33(81-89) SMITHVILLE LAKE       23.3
*********************************************************************
* GPS SITE:  4/204016      N39:05:15 W095:33:00 ELEV:  870, 1979
*********************************************************************
FIRST O. F  US:KS008167    870 39:04 095:38(48-89) TOPEKA WSFO AP        4.7
ACTIVE   C  US:KS006333    960 39:07 095:25(67-89) PERRY LAKE            7.4
REGULAR1 C  US:KS006100   1110 39:13 095:19(58-89) OSKALOOSA            15.4
REGULAR2 C  US:KS001612    980 38:56 095:20(77-89) CLINTON LAKE          15.8
REGULAR3 C  US:KS004559   1000 38:58 095:16(39-89) LAWRENCE             17.4
*********************************************************************
* GPS SITE:  4/204052      N39:44:30 W094:55:00 ELEV:  809, 1983
*********************************************************************
FIRST O. F  US:MO004358    970 39:19 094:43(72-89) KANSAS CITY WSO AP    31.2
ACTIVE   C  US:MO007435    810 39:46 094:55(65-89) ST JOSEPH 4 WNW       1.7
REGULAR1 C  US:KS008250   1110 39:46 095:09(48-89) TROY 4 WSW            12.5
REGULAR2 C  US:KS000405    950 39:34 095:07(39-89) ATCHISON              16.1
REGULAR3 C  US:MO002474    840 39:30 094:37(48-89) EDGERTON              23.1
*********************************************************************
* GPS SITE:  4/204053      N39:06:25 W094:47:58 ELEV:  930, 1987
*********************************************************************
FIRST O. F  US:MO004359    740 39:07 094:35(48-89) KANSAS CITY FSS       11.6
ACTIVE   C  US:KS004588    860 39:16 094:53(48-89) LEAVENWORTH 4 SSE     11.9
REGULAR1 F  US:MO004358    970 39:19 094:43(72-89) KANSAS CITY WSO AP    15.1
REGULAR2 C  US:KS005972   1060 38:53 094:46(39-89) OLATHE 3 E            15.5
REGULAR3 C  US:MO004158   1010 39:04 094:23(73-89) INDEPENDENCE 2        22.5
```

```
*********************************************************************
* GPS SITE:  4/204054      N38:57:44 W097:06:05 ELEV: 1190, 1985
*********************************************************************
FIRST O. F  US:KS007160   1260 38:48 097:38(52-89) SALINA FAA AP          30.8
ACTIVE   C  US:KS000010   1170 38:55 097:15(48-89) ABILENE 2 W            8.6
REGULAR1 C  US:KS005306   1210 39:05 096:53(65-89) MILFORD LAKE           14.4
REGULAR2 C  US:KS003594   1340 38:40 096:57(39-89) HERINGTON             22.0
REGULAR3 C  US:KS001559   1220 39:23 097:07(39-89) CLAY CENTER            29.1
*********************************************************************
* GPS SITE:  4/204063      N39:02:42 W094:47:24 ELEV:  877, 1981
*********************************************************************
FIRST O. F  US:MO004359    740 39:07 094:35(48-89) KANSAS CITY FSS        12.2
ACTIVE   C  US:KS005972   1060 38:53 094:46(39-89) OLATHE 3 E            11.2
REGULAR1 C  US:KS004588    860 39:16 094:53(48-89) LEAVENWORTH 4 SSE      16.1
REGULAR2 F  US:MO004358    970 39:19 094:43(72-89) KANSAS CITY WSO AP     19.2
REGULAR3 C  US:MO004158   1010 39:04 094:23(73-89) INDEPENDENCE 2         21.9
*********************************************************************
* GPS SITE:  4/204067      N38:01:37 W097:21:51 ELEV: 1470, 1976
*********************************************************************
FIRST O. F  US:KS008830   1320 37:39 097:26(54-89) WICHITA WSO AP         26.3
ACTIVE   C  US:KS005744   1450 38:02 097:23(39-89) NEWTON 2 SW            1.1
REGULAR1 C  US:KS002773   1290 38:15 096:56(48-89) FLORENCE              28.0
REGULAR2 C  US:KS005039   1370 38:23 097:05(66-89) MARION LAKE           29.0
REGULAR3 C  US:KS005152   1500 38:23 097:40( 1-89) MC PHERSON            29.6
*********************************************************************
* GPS SITE: 6A/206026      N37:57:00 W097:55:00 ELEV: 1542, 1962
*********************************************************************
FIRST O. F  US:KS008830   1320 37:39 097:26(54-89) WICHITA WSO AP         33.6
ACTIVE   C  US:KS003930   1570 37:56 098:02(53-89) HUTCHINSON 10 SW       6.5
REGULAR1 C  US:KS007796   1640 38:13 098:12(52-89) STERLING              24.0
REGULAR2 C  US:KS004313   1510 37:38 098:07(48-89) KINGMAN               24.4
REGULAR3 C  US:KS005744   1450 38:02 097:23(39-89) NEWTON 2 SW            29.6
*********************************************************************
* GPS SITE: 7A/207073      N38:55:00 W097:18:49 ELEV: 1240, 1961
*********************************************************************
FIRST O. F  US:KS007160   1260 38:48 097:38(52-89) SALINA FAA AP          19.0
ACTIVE   C  US:KS000010   1170 38:55 097:15(48-89) ABILENE 2 W            3.4
REGULAR1 C  US:KS005306   1210 39:05 096:53(65-89) MILFORD LAKE           25.8
REGULAR2 C  US:KS003594   1340 38:40 096:57(39-89) HERINGTON             26.1
REGULAR3 C  US:KS005363   1300 39:08 097:43( 1-89) MINNEAPOLIS           26.3
*********************************************************************
* GPS SITE: 7A/207085      N39:50:00 W096:37:00 ELEV: 1250, 1960
*********************************************************************
FIRST O. F  US:KS001767   1470 39:33 097:39(62-89) CONCORDIA WSO AP       58.4
ACTIVE   C  US:KS005063   1160 39:50 096:39(48-89) MARYSVILLE             1.8
REGULAR1 C  US:KS008578   1300 39:49 097:03(52-89) WASHINGTON             23.0
REGULAR2 C  US:KS000877   1530 39:30 096:24(55-89) BLAINE                 25.7
REGULAR3 C  US:KS001408   1320 39:43 096:07(48-89) CENTRALIA              27.8
*********************************************************************
* GPS SITE:  9/209037      N39:05:25 W095:42:46 ELEV:  850, 1957
*********************************************************************
FIRST O. F  US:KS008167    870 39:04 095:38(48-89) TOPEKA WSFO AP          4.6
ACTIVE   C  US:KS006333    960 39:07 095:25(67-89) PERRY LAKE             16.0
REGULAR1 C  US:KS006100   1110 39:13 095:19(58-89) OSKALOOSA              23.0
REGULAR2 C  US:KS004559   1000 38:58 095:16(39-89) LAWRENCE               25.4
REGULAR3 C  US:KS003759   1120 39:28 095:46(48-89) HOLTON                  26.2
*********************************************************************
* GPS SITE:  1/211010      N37:28:43 W083:41:49 ELEV:  892, 1985
*********************************************************************
FIRST O. F  US:KY004898   1190 37:05 084:04(54-89) LONDON FAA AP          34.0
ACTIVE   C  US:KY003741    670 37:33 083:46(32-89) HEIDELBERG LOCK 14      6.2
REGULAR1 C  US:KY003382   1200 37:24 083:57(72-89) GRAY HAWK              14.9
REGULAR2 C  US:KY004202   1370 37:36 083:19(81-89) JACKSON WSO AP         22.5
REGULAR3 C  US:KY005111    870 37:09 083:49(51-89) MANCHESTER 4 W         23.6
*********************************************************************
* GPS SITE:  1/211014      N37:30:48 W082:29:38 ELEV: 1104, 1984
*********************************************************************
FIRST O. F  US:WV004393    830 38:22 082:33(61-89) HUNTINGTON WSO AP      59.0
ACTIVE   C  US:WV009605    670 37:40 082:17(26-89) WILLIAMSON             15.7
REGULAR1 C  US:KY006136    630 37:49 082:47(33-89) PAINTSVILLE 1 E        26.3
REGULAR2 C  US:VA003640   1170 37:16 082:05(48-89) GRUNDY                 28.3
REGULAR3 C  US:WV002522   1220 38:01 082:25(71-89) DUNLOW 1 ESE           35.0
```

```
**********************************************************************
* GPS SITE:  1/211034      N36:59:21 W085:58:21 ELEV:  665, 1972
**********************************************************************
FIRST O. F  US:TN006402    580 36:07 086:41(48-89) NASHVILLE WSO AP          72.0
ACTIVE   C  US:KY003246    810 37:00 085:55(53-89) GLASGOW WKAY               3.2
REGULAR1 C  US:KY000422    620 36:54 086:08(63-89) BARREN RIVER LAKE         10.8
REGULAR2 C  US:KY005097    790 37:11 086:05(48-89) MAMMOTH CAVE PARK         14.7
REGULAR3 C  US:KY007800    860 36:53 085:43(50-89) SUMMER SHADE              15.9
**********************************************************************
* GPS SITE:  3/213016      N37:51:06 W085:42:44 ELEV:  460, 1984
**********************************************************************
FIRST O. F  US:KY004898   1190 37:05 084:04(54-89) LONDON FAA AP           104.8
ACTIVE   C  US:KY000630    550 37:55 085:39(70-89) BERNHEIM FOREST            5.6
REGULAR1 C  US:KY003929    790 37:32 085:44(48-89) HODGENVILLE-LINCOLN N      22.0
REGULAR2 C  US:KY004954    480 38:11 085:44(48-89) LOUISVILLE WSFO           22.9
REGULAR3 C  US:IN001425    530 38:22 085:41(62-89) CHARLESTOWN ORD PLANT     35.6
**********************************************************************
* GPS SITE:  4/214025      N38:07:15 W084:32:26 ELEV:  960, 1973
**********************************************************************
FIRST O. F  US:KY004898   1190 37:05 084:04(54-89) LONDON FAA AP           76.2
ACTIVE   C  US:KY004746    970 38:02 084:36(48-89) LEXINGTON WSO AP          6.9
REGULAR1 C  US:KY003028    500 38:14 084:52(48-89) FRANKFORT LOCK 4          19.4
REGULAR2 C  US:KY001998    700 38:23 084:18(32-89) CYNTHIANA                 22.3
REGULAR3 C  US:KY002214    870 37:48 084:43(53-89) DIX DAM                   24.1
**********************************************************************
* GPS SITE: 6A/216040      N38:02:14 W084:33:09 ELEV:  978, 1967
**********************************************************************
FIRST O. F  US:KY004898   1190 37:05 084:04(54-89) LONDON FAA AP           71.1
ACTIVE   C  US:KY004746    970 38:02 084:36(48-89) LEXINGTON WSO AP          2.6
REGULAR1 C  US:KY002214    870 37:48 084:43(53-89) DIX DAM                   18.7
REGULAR2 C  US:KY003028    500 38:14 084:52(48-89) FRANKFORT LOCK 4          21.8
REGULAR3 C  US:KY002409   1000 37:45 084:20(77-89) EASTERN KY UNIVERSITY     23.2
**********************************************************************
* GPS SITE: 6A/216043      N37:08:13 W083:50:18 ELEV: 1004, 1971
**********************************************************************
FIRST O. F  US:KY004898   1190 37:05 084:04(54-89) LONDON FAA AP           13.1
ACTIVE   C  US:KY005111    870 37:09 083:49(51-89) MANCHESTER 4 W            1.5
REGULAR1 C  US:KY000381    980 36:52 083:53(48-89) BARBOURVILLE              18.8
REGULAR2 C  US:KY003382   1200 37:24 083:57(72-89) GRAY HAWK                19.2
REGULAR3 C  US:KY004097   1180 37:08 083:20(78-89) HYDEN 4 E                 27.8
**********************************************************************
* GPS SITE:  2/223056      N31:06:00 W092:24:00 ELEV:   50, 1988
**********************************************************************
FIRST O. F  US:LA005026     40 30:12 091:59(48-89) LAFAYETTE FAA AP         66.9
ACTIVE   C  US:LA005630     70 31:11 092:24(76-89) LSU DEAN LEE RES STN      5.8
REGULAR1 C  US:LA000098     90 31:19 092:28(30-89) ALEXANDRIA               15.5
REGULAR2 C  US:LA001287     80 30:57 092:10(56-89) BUNKIE                   17.3
REGULAR3 C  US:LA001232    110 31:23 092:43(76-89) BOYCE 3 WNW              27.1
**********************************************************************
* GPS SITE:  4/224001      N30:30:00 W090:30:00 ELEV:   30, 1970
**********************************************************************
FIRST O. F  US:LA000549     60 30:32 091:09(30-89) BATON ROUGE WSO AP       38.8
ACTIVE   C  US:LA000205    180 30:43 090:30(48-89) AMITE                    15.0
REGULAR1 C  US:LA004034     50 30:32 090:29(48-86) HAMMOND 3 NW              2.5
REGULAR2 C  US:LA002151     40 30:32 090:07(30-89) COVINGTON 4 NNW           23.0
REGULAR3 C  US:LA003327    150 30:49 090:11(56-89) FRANKLINTON 3 SW          28.9
**********************************************************************
* GPS SITE:  1/231001      N45:13:13 W068:40:34 ELEV:  220, 1972
**********************************************************************
FIRST O. F  US:ME000275    350 44:19 069:48(48-89) AUGUSTA FAA AP           83.3
ACTIVE   C  US:ME006430    120 44:54 068:40(48-89) ORONO                    22.1
REGULAR1 C  US:ME008353    440 45:24 068:10(64-89) SPRINGFIELD              27.7
REGULAR2 C  US:ME001975    460 45:11 069:15(73-89) DOVER-FOXCROFT87083      28.1
REGULAR3 C  US:ME005304    360 45:39 068:42(48-89) MILLINOCKET              29.7
**********************************************************************
* GPS SITE:  1/231009      N44:03:56 W069:29:33 ELEV:  112, 1970
**********************************************************************
FIRST O. F  US:ME000275    350 44:19 069:48(48-89) AUGUSTA FAA AP           23.1
ACTIVE   C  US:ME005675    190 44:03 069:32(65-89) NEWCASTLE                 2.3
REGULAR1 C  US:ME003046    140 44:13 069:47(48-89) GARDINER                 17.8
REGULAR2 C  US:ME009593    380 44:12 069:09(76-89) WEST ROCKPORT 1 NNW       19.4
REGULAR3 C  US:ME000934     70 43:54 069:56(52-89) BRUNSWICK                 24.7
```

```
**********************************************************************
* GPS SITE:  1/231012      N43:50:09 W070:07:46 ELEV:  126, 1985
**********************************************************************
FIRST O. F  US:ME006905     60 43:39 070:19(20-89) PORTLAND WSMO AP        15.9
ACTIVE   C  US:ME000934     70 43:54 069:56(52-89) BRUNSWICK               10.7
REGULAR1 C  US:ME004566    180 44:06 070:13(26-89) LEWISTON                18.8
REGULAR2 C  US:ME009314    150 43:42 070:37(53-89) WEST BUXTON 2 NNW        26.1
REGULAR3 C  US:ME002238    530 43:53 070:45(70-89) EAST HIRAM               31.1
**********************************************************************
* GPS SITE:  1/231026      N44:34:24 W070:17:40 ELEV:  486, 1973
**********************************************************************
FIRST O. F  US:ME000275    350 44:19 069:48(48-89) AUGUSTA FAA AP           30.2
ACTIVE   C  US:ME002765    420 44:41 070:09(26-89) FARMINGTON               10.4
REGULAR1 C  US:ME007325    630 44:32 070:32(48-89) RUMFORD 1 SSE            12.1
REGULAR2 C  US:ME004927    260 44:48 069:53(48-89) MADISON                  25.6
REGULAR3 C  US:ME009151     90 44:33 069:39(58-89) WATERVILLE PUMP STN      31.8
**********************************************************************
* GPS SITE:  1/231028      N44:25:46 W070:48:03 ELEV:  669, 1973
**********************************************************************
FIRST O. F  US:NH005639   6260 44:16 071:18(48-89) MOUNT WASHINGTON         27.1
ACTIVE   C  US:ME007325    630 44:32 070:32(48-89) RUMFORD 1 SSE            15.0
REGULAR1 C  US:NH000690    930 44:27 071:11(26-89) BERLIN                   18.9
REGULAR2 C  US:NH006818   2010 44:16 071:15(48-89) PINKHAM NOTCH           24.9
REGULAR3 C  US:ME005261   1460 44:47 070:55(48-89) MIDDLE DAM              25.1
**********************************************************************
* GPS SITE:  3/233013      N43:55:31 W070:00:13 ELEV:  127, 1973
**********************************************************************
FIRST O. F  US:ME006905     60 43:39 070:19(20-89) PORTLAND WSMO AP        24.6
ACTIVE   C  US:ME000934     70 43:54 069:56(52-89) BRUNSWICK                3.9
REGULAR1 C  US:ME004566    180 44:06 070:13(26-89) LEWISTON                16.1
REGULAR2 C  US:ME003046    140 44:13 069:47(48-89) GARDINER                22.9
REGULAR3 C  US:ME005675    190 44:03 069:32(65-89) NEWCASTLE               24.9
**********************************************************************
* GPS SITE:  3/233014      N43:56:11 W069:59:08 ELEV:  128, 1973
**********************************************************************
FIRST O. F  US:ME006905     60 43:39 070:19(20-89) PORTLAND WSMO AP        25.8
ACTIVE   C  US:ME000934     70 43:54 069:56(52-89) BRUNSWICK                3.6
REGULAR1 C  US:ME004566    180 44:06 070:13(26-89) LEWISTON                16.1
REGULAR2 C  US:ME003046    140 44:13 069:47(48-89) GARDINER                21.8
REGULAR3 C  US:ME005675    190 44:03 069:32(65-89) NEWCASTLE               23.8
**********************************************************************
* GPS SITE: 7A/237023      N43:52:11 W070:06:07 ELEV:  139, 1951
**********************************************************************
FIRST O. F  US:ME006905     60 43:39 070:19(20-89) PORTLAND WSMO AP        18.6
ACTIVE   C  US:ME000934     70 43:54 069:56(52-89) BRUNSWICK                8.7
REGULAR1 C  US:ME004566    180 44:06 070:13(26-89) LEWISTON                16.9
REGULAR2 C  US:ME009314    150 43:42 070:37(53-89) WEST BUXTON 2 NNW        28.2
REGULAR3 C  US:ME003046    140 44:13 069:47(48-89) GARDINER                28.7
**********************************************************************
* GPS SITE:  2/241632      N38:22:24 W076:26:42 ELEV:   93, 1986
**********************************************************************
FIRST O. F  US:VA008906     70 38:51 077:02(48-89) WASH NATL WSCMO AP       45.8
ACTIVE   C  US:MD006915     40 38:20 076:25(48-89) PATUXENT RIVER           3.2
REGULAR1 C  US:MD005865    100 38:26 076:43(74-89) MECHANICSVILLE 5 NE      15.3
REGULAR2 C  US:MD001385     10 38:34 076:04(48-89) CAMBRIDGE WTR TRMT PL    24.5
REGULAR3 C  US:MD006770    160 38:41 076:40(48-89) OWINGS FERRY LANDING     24.5
**********************************************************************
* GPS SITE:  2/241634      N38:22:15 W075:15:00 ELEV:   39, 1976
**********************************************************************
FIRST O. F  US:NJ005581     70 39:22 075:04(48-89) MILLVILLE FAA AIRPORT    69.5
ACTIVE   C  US:MD000335     10 38:14 075:08(68-89) ASSATEAGUE ISLAND N S    11.4
REGULAR1 C  US:MD008380     30 38:14 075:23(48-89) SNOW HILL 4 N            11.9
REGULAR2 C  US:MD008005     50 38:20 075:31(48-89) SALISBURY FAA AP         14.7
REGULAR3 C  US:MD008000     10 38:22 075:35(48-89) SALISBURY                18.1
**********************************************************************
* GPS SITE:  2/242401      N39:29:20 W076:19:51 ELEV:  212, 1987
**********************************************************************
FIRST O. F  US:DE009595     80 39:40 075:36(48-89) WILMINGTON WSO AP        40.9
ACTIVE   C  US:MD000732    370 39:30 076:23(48-89) BENSON POLICE BARRACK     2.9
REGULAR1 C  US:MD000015     60 39:28 076:10(48-89) ABERDEEN PHILLIPS FLD     8.9
REGULAR2 C  US:MD002060     40 39:39 076:10(41-89) CONOWINGO DAM            14.2
REGULAR3 C  US:MD008877    390 39:23 076:34(48-89) TOWSON                   14.6
```

```
*****************************************************************
* GPS SITE:  2/242805      N39:24:45 W077:21:15 ELEV:  298, 1986
*****************************************************************
FIRST O. F  US:WV005707    530 39:24 077:59(26-89) MARTINSBURG FAA AP       33.6
ACTIVE   C  US:MD003348    380 39:25 077:26(48-89) FREDERICK POLICE BRKS     4.2
REGULAR1 C  US:MD009030    430 39:27 077:11(48-89) UNIONVILLE                9.5
REGULAR2 C  US:MD002335    720 39:16 077:14(73-89) DAMASCUS 2 SW            12.0
REGULAR3 C  US:MD001032    580 39:13 077:20(53-89) BOYDS 2 NW               13.6
*****************************************************************
* GPS SITE:  5/245807      N39:10:50 W076:42:00 ELEV:  107, 1988
*****************************************************************
FIRST O. F  US:VA008906     70 38:51 077:02(48-89) WASH NATL WSCMO AP       29.0
ACTIVE   C  US:MD000465    200 39:11 076:40(48-89) BALTIMORE WSO AP          1.8
REGULAR1 C  US:MD005111    400 39:06 076:54(49-89) LAUREL 3 W               12.1
REGULAR2 C  US:MD001862    370 39:15 076:56(67-89) CLARKSVILLE 3 NNE        13.4
REGULAR3 C  US:MD009750    460 39:20 076:52( 1-89) WOODSTOCK                13.8
*****************************************************************
* GPS SITE:  1/251002      N42:08:20 W072:36:53 ELEV:   88, 1982
*****************************************************************
FIRST O. F  US:RI006698     50 41:44 071:26(48-89) PROVIDENCE WSO AP        66.9  REJECTED
ACTIVE   C  US:CT003456    160 41:56 072:41(54-89) HARTFORD WSO AP          14.6
REGULAR1 C  US:MA000759   1110 42:08 072:56(69-89) BORDEN BROOK RESV        16.3  REJECTED
REGULAR2 C  US:MA003985    630 42:17 072:52(48-89) KNIGHTVILLE DAM          16.3  REJECTED
REGULAR3 C  US:MA000120    150 42:23 072:32(26-89) AMHERST                  17.4
*****************************************************************
* GPS SITE:  1/251003      N42:17:07 W071:17:43 ELEV:  128, 1974
*****************************************************************
FIRST O. F  US:MA000736    630 42:13 071:07(26-89) BLUE HILL WSO            10.3
ACTIVE   C  US:MA002975    170 42:17 071:25(48-89) FRAMINGHAM                6.2
REGULAR1 C  US:MA001447    120 42:20 071:09(48-86) CHESTNUT HILL             8.1
REGULAR2 C  US:MA008757    150 42:10 071:15(72-89) WALPOLE 2                 8.5
REGULAR3 C  US:MA009316    210 42:08 071:26(57-89) WEST MEDWAY              12.7
*****************************************************************
* GPS SITE:  1/251004      N41:38:35 W070:54:08 ELEV:   49, 1974
*****************************************************************
FIRST O. F  US:RI006698     50 41:44 071:26(48-89) PROVIDENCE WSO AP        28.1
ACTIVE   C  US:MA005246     70 41:38 070:56(48-89) NEW BEDFORD               1.7
REGULAR1 C  US:MA006938     60 41:47 070:55(51-89) ROCHESTER                 9.7
REGULAR2 C  US:MA002451     20 41:46 070:40(26-89) EAST WAREHAM             14.9
REGULAR3 C  US:MA008367     20 41:54 071:04(48-89) TAUNTON                  19.7
*****************************************************************
* GPS SITE:  1/261001      N44:01:24 W084:56:13 ELEV: 1154, 1971
*****************************************************************
FIRST O. F  US:MI007227    660 43:32 084:05( 1-89) SAGINAW FAA AP           54.4
ACTIVE   C  US:MI002671   1000 43:54 085:16(51-89) EVART                    18.5
REGULAR1 C  US:MI003932   1140 44:19 084:53(48-89) HOUGHTON LAKE 6 WSW      20.4
REGULAR2 C  US:MI003170    780 43:59 084:30(48-89) GLADWIN                  21.9
REGULAR3 C  US:MI004502   1240 44:19 085:12(48-89) LAKE CITY EXP FARM       24.1
*****************************************************************
* GPS SITE:  1/261004      N47:05:24 W088:20:37 ELEV:  984, 1985
*****************************************************************
FIRST O. F  CA:6048261     653 48:22 089:19(41-89) THUNDER BAY A            99.1
ACTIVE   C  US:MI003908   1070 47:10 088:30(52-89) HOUGHTON FAA AP          9.1
REGULAR1 C  US:MI003744   1820 46:39 088:20(68-89) HERMAN                  30.4
REGULAR2 C  US:MI000089   1310 46:39 088:29(57-89) ALBERTA FORD FOR CENT    31.1
REGULAR3 C  US:MI001780    630 47:28 087:52(48-89) COPPER HARBOR FT WILK    34.3
*****************************************************************
* GPS SITE:  1/261010      N43:10:00 W083:41:00 ELEV:  792, 1975
*****************************************************************
FIRST O. F  US:MI002846    770 42:58 083:45(48-89) FLINT WSO AP             14.2
ACTIVE   C  US:MI004655    870 43:03 083:21(48-89) LAPEER                   18.7
REGULAR1 C  US:MI007217    600 43:27 083:58(55-87) SAGINAW CONSUMERS P C    24.2
REGULAR2 C  US:MI001299    670 43:27 083:24(48-89) CARO  REGIONAL CENTER    24.2
REGULAR3 C  US:MI007253    600 43:18 084:09(48-89) SAINT CHARLES            25.3
*****************************************************************
* GPS SITE:  1/261012      N43:42:30 W085:32:00 ELEV: 1032, 1980
*****************************************************************
FIRST O. F  US:MI005712    630 43:10 086:14(48-89) MUSKEGON WSO AP          51.3
ACTIVE   C  US:MI000779    930 43:42 085:29( 1-89) BIG RAPIDS WATERWORKS     2.6
REGULAR1 C  US:MI002671   1000 43:54 085:16(51-89) EVART                    18.8
REGULAR2 C  US:MI000446    840 43:54 085:51(48-89) BALDWIN                  20.6
REGULAR3 C  US:MI003769    780 43:35 086:06(48-89) HESPERIA 4 WNW           29.6
```

```
*****************************************************************
* GPS SITE:  1/261013      N43:26:25 W085:17:30 ELEV:  900, 1980
*****************************************************************
FIRST O. F  US:MI005712    630 43:10 086:14(48-89) MUSKEGON WSO AP          51.0
ACTIVE   C  US:MI003429    880 43:12 085:15(48-89) GREENVILLE 2 NNE         16.7
REGULAR1 C  US:MI000779    930 43:42 085:29( 1-89) BIG RAPIDS WATERWORKS    20.3
REGULAR2 C  US:MI005662    800 43:35 084:46(48-89) MT PLEASANT UNIVERSIT    28.1
REGULAR3 C  US:MI000146    760 43:23 084:40(48-89) ALMA                     31.7
*****************************************************************
* GPS SITE:  3/263068      N43:51:00 W084:53:00 ELEV:  944, 1975
*****************************************************************
FIRST O. F  US:MI007227    660 43:32 084:05( 1-89) SAGINAW FAA AP           45.6
ACTIVE   C  US:MI005662    800 43:35 084:46(48-89) MT PLEASANT UNIVERSIT    19.3
REGULAR1 C  US:MI002671   1000 43:54 085:16(51-89) EVART                    19.4
REGULAR2 C  US:MI003170    780 43:59 084:30(48-89) GLADWIN                  21.2
REGULAR3 C  US:MI000779    930 43:42 085:29( 1-89) BIG RAPIDS WATERWORKS    31.7
*****************************************************************
* GPS SITE:  3/263069      N43:51:00 W084:54:00 ELEV:  935, 1974
*****************************************************************
FIRST O. F  US:MI007227    660 43:32 084:05( 1-89) SAGINAW FAA AP           46.3
ACTIVE   C  US:MI002671   1000 43:54 085:16(51-89) EVART                    18.6
REGULAR1 C  US:MI005662    800 43:35 084:46(48-89) MT PLEASANT UNIVERSIT    19.6
REGULAR2 C  US:MI003170    780 43:59 084:30(48-89) GLADWIN                  22.0
REGULAR3 C  US:MI000779    930 43:42 085:29( 1-89) BIG RAPIDS WATERWORKS    30.9
*****************************************************************
* GPS SITE:  4/264015      N42:59:36 W082:48:14 ELEV:  780, 1985
*****************************************************************
FIRST O. F  US:MI002846    770 42:58 083:45(48-89) FLINT WSO AP             47.9
ACTIVE   C  US:MI006680    590 42:59 082:25(48-89) PORT HURON               19.6
REGULAR1 C  CA:61219J1     610 42:45 082:27(69-89) COURTRIGHT               24.6
REGULAR2 C  CA:6127514     594 43:00 082:18(67-89) SARNIA A                 25.5
REGULAR3 C  US:MI005650    580 42:36 082:49(48-89) MOUNT CLEMENS ANG BAS    27.2
*****************************************************************
* GPS SITE:  5/265363      N42:10:32 W083:21:15 ELEV:  640, 1976
*****************************************************************
FIRST O. F  CA:6139525     622 42:16 082:58(40-89) WINDSOR A                20.8
ACTIVE   C  US:MI002103    630 42:14 083:20(58-89) DETROIT METRO WSO AP      4.1
REGULAR1 C  US:MI002015    610 42:19 083:14(52-89) DEARBORN                 11.5
REGULAR2 C  US:MI009014    660 42:05 083:35(48-83) WILLIS 5 SSW             13.4
REGULAR3 C  US:MI009218    780 42:15 083:37(48-89) YPSILANTI E MI UNIV      14.4
*****************************************************************
* GPS SITE: 6A/266016      N44:28:00 W084:41:00 ELEV: 1170, 1970
*****************************************************************
FIRST O. F  US:MI008251    620 44:44 085:35( 1-89) TRAVERSE CITY FAA AP     48.0
ACTIVE   C  US:MI003936   1150 44:22 084:41(64-89) HOUGHTON LAKE WSO AP     6.9
REGULAR1 C  US:MI003391   1140 44:39 084:42(48-89) GRAYLING                 12.7
REGULAR2 C  US:MI003932   1140 44:19 084:53(48-89) HOUGHTON LAKE 6 WSW      14.3
REGULAR3 C  US:MI004502   1240 44:19 085:12(48-89) LAKE CITY EXP FARM       27.6
*****************************************************************
* GPS SITE: 7A/267072      N42:48:16 W083:34:34 ELEV:  980, 1962
*****************************************************************
FIRST O. F  US:MI002846    770 42:58 083:45(48-89) FLINT WSO AP             14.3
ACTIVE   C  US:MI005452    990 42:35 083:42(48-89) MILFORD GM PROVING GR    16.5
REGULAR1 C  US:MI006658    980 42:39 083:18(48-89) PONTIAC STATE HOSPITA    17.6
REGULAR2 C  US:MI004655    870 43:03 083:21(48-89) LAPEER                   20.5
REGULAR3 C  US:MI006300    770 42:58 084:12(48-89) OWOSSO 3 SSW             33.5
*****************************************************************
* GPS SITE:  9/269029      N42:53:00 W085:00:00 ELEV:  810, 1959
*****************************************************************
FIRST O. F  US:MI004641    840 42:46 084:36(48-89) LANSING WSO AP           22.4
ACTIVE   C  US:MI004078    750 42:59 085:04(48-89) IONIA 1 WNW               6.8
REGULAR1 C  US:MI003661    780 42:39 085:18(48-89) HASTINGS                 22.6
REGULAR2 C  US:MI003429    880 43:12 085:15(48-89) GREENVILLE 2 NNE         24.4
REGULAR3 C  US:MI007280    740 43:01 084:33(48-89) SAINT JOHNS              24.5
*****************************************************************
* GPS SITE:  9/269030      N41:55:00 W083:40:00 ELEV:  678, 1960
*****************************************************************
FIRST O. F  CA:6139525     622 42:16 082:58(40-89) WINDSOR A                43.3
ACTIVE   C  US:MI005558    590 41:55 083:24(31-89) MONROE                   13.7
REGULAR1 C  US:MI009014    660 42:05 083:35(48-83) WILLIS 5 SSW             12.3
REGULAR2 C  US:MI000032    760 41:55 084:01(48-89) ADRIAN 2 NNE             18.0
REGULAR3 C  US:OH008366    600 41:39 083:32(48-89) TOLEDO BLADE             19.7
```

```
**********************************************************************
* GPS SITE:  1/271016      N47:30:00 W094:56:00 ELEV: 1375, 1976
**********************************************************************
FIRST O. F  US:ND002859    900 46:54 096:48(42-89) FARGO WSO AP          97.0
ACTIVE   C  US:MN000643   1380 47:30 094:56(48-89) BEMIDJI              0.0
REGULAR1 C  US:MN001374   1300 47:23 094:37(11-89) CASS LAKE            16.9
REGULAR2 C  US:MN004106   1490 47:13 095:12(12-89) ITASCA UNIV OF MINN  23.2
REGULAR3 C  US:MN006795   1220 47:52 095:02(48-89) RED LAKE INDIAN AGENC 25.7
**********************************************************************
* GPS SITE:  1/271018      N45:59:43 W094:28:08 ELEV: 1118, 1979
**********************************************************************
FIRST O. F  US:MN007294   1040 45:33 094:04(48-89) ST CLOUD WSO AP       36.4
ACTIVE   C  US:MN004793   1120 45:59 094:21(32-89) LITTLE FALLS 1 N      5.8
REGULAR1 C  US:MN004861   1290 45:59 094:51(48-89) LONG PRAIRIE         18.3
REGULAR2 C  US:MN005325   1210 45:40 094:49(54-89) MELROSE              28.2
REGULAR3 C  US:MN001691   1230 45:35 094:24(41-89) COLLEGEVILLE ST JOHN 28.6
**********************************************************************
* GPS SITE:  1/271019      N45:35:00 W093:36:00 ELEV:  980, 1980
**********************************************************************
FIRST O. F  US:MN007294   1040 45:33 094:04(48-89) ST CLOUD WSO AP       22.7
ACTIVE   C  US:MN007502   1020 45:33 093:46(59-89) SANTIAGO 3 E          8.4
REGULAR1 C  US:MN005392   1090 45:48 093:40(48-89) MILACA 1 ENE          15.3
REGULAR2 C  US:MN001227   1000 45:34 093:14(48-89) CAMBRIDGE STATE HOSP  17.8
REGULAR3 C  US:MN001390    910 45:19 093:17(62-89) CEDAR                 24.0
**********************************************************************
* GPS SITE:  1/271023      N47:26:00 W094:51:00 ELEV: 1375, 1982
**********************************************************************
FIRST O. F  US:ND002859    900 46:54 096:48(42-89) FARGO WSO AP          98.8
ACTIVE   C  US:MN000643   1380 47:30 094:56(48-89) BEMIDJI              6.0
REGULAR1 C  US:MN001374   1300 47:23 094:37(11-89) CASS LAKE            11.5
REGULAR2 C  US:MN004106   1490 47:13 095:12(12-89) ITASCA UNIV OF MINN  22.2
REGULAR3 C  US:MN008618   1410 47:04 094:35(48-89) WALKER AH GWAH CHING  28.2
**********************************************************************
* GPS SITE:  1/271028      N46:41:00 W095:40:00 ELEV: 1384, 1972
**********************************************************************
FIRST O. F  US:ND002859    900 46:54 096:48(42-89) FARGO WSO AP          55.7
ACTIVE   C  US:MN002142   1380 46:50 095:51(32-89) DETROIT LAKES 1 NNE  13.5
REGULAR1 C  US:MN006276    980 46:25 095:34(48-89) OTTERTAIL             19.0
REGULAR2 C  US:MN008191   1480 46:58 095:40(77-89) TAMARAC WILDLIFE REF  19.6
REGULAR3 C  US:MN008579   1350 46:24 095:09(32-89) WADENA 3 S            31.4
**********************************************************************
* GPS SITE:  1/271029      N45:32:00 W093:14:00 ELEV:  918, 1970
**********************************************************************
FIRST O. F  US:MN007294   1040 45:33 094:04(48-89) ST CLOUD WSO AP       40.4
ACTIVE   C  US:MN001227   1000 45:34 093:14(48-89) CAMBRIDGE STATE HOSP  2.3
REGULAR1 C  US:MN001390    910 45:19 093:17(62-89) CEDAR                 15.2
REGULAR2 C  US:MN002881    910 45:19 092:56(58-89) FOREST LAKE 5 NE      20.9
REGULAR3 C  US:MN005615    990 45:53 093:18(32-89) MORA                  24.4
**********************************************************************
* GPS SITE:  1/271085      N43:44:03 W092:35:35 ELEV: 1330, 1984
**********************************************************************
FIRST O. F  US:MN007004   1300 43:55 092:30(48-89) ROCHESTER WSO AP      13.4
ACTIVE   C  US:MN003290   1350 43:42 092:34(32-89) GRAND MEADOW          2.7
REGULAR1 C  US:MN000355   1220 43:37 093:00(48-89) AUSTIN 3 S            21.9
REGULAR2 C  US:MN006654    930 43:40 092:05(52-89) PRESTON               25.9
REGULAR3 C  US:IA006305   1170 43:17 092:48(48-89) OSAGE                 32.8
**********************************************************************
* GPS SITE:  1/271087      N44:48:00 W093:14:00 ELEV:  800, 1979
**********************************************************************
FIRST O. F  US:MN005435    830 44:53 093:13( 1-89) MINN-ST PAUL WSO AP   5.8
ACTIVE   C  US:MN007107    950 44:43 093:06(50-89) ROSEMOUNT AGRI EXP ST 8.7
REGULAR1 C  US:MN002737    980 44:40 093:11(48-89) FARMINGTON 3 NW       9.5
REGULAR2 C  US:MN007377    920 44:58 093:05(56-89) SAINT PAUL            13.7
REGULAR3 C  US:MN001465    720 44:48 093:35(11-89) CHASKA                17.2
**********************************************************************
* GPS SITE:  3/273003      N44:25:00 W094:24:00 ELEV: 1066, 1986
**********************************************************************
FIRST O. F  US:MN005435    830 44:53 093:13( 1-89) MINN-ST PAUL WSO AP   66.6
ACTIVE   C  US:MN005887    860 44:18 094:27(48-89) NEW ULM 2 SE          8.4
REGULAR1 C  US:MN003076   1020 44:33 094:13(56-89) GAYLORD              12.9
REGULAR2 C  US:MN008025   1040 44:44 094:30(57-89) STEWART              22.4
REGULAR3 C  US:MN007405    850 44:18 093:58(48-89) ST PETER 2 SW         22.9
```

```
**********************************************************************
* GPS SITE:  5/275076      N45:02:00 W092:59:00 ELEV:  985, 1970
**********************************************************************
FIRST O. F  US:MN005435    830 44:53 093:13( 1-89) MINN-ST PAUL WSO AP      15.4
ACTIVE   C  US:MN007377    920 44:58 093:05(56-89) SAINT PAUL               6.7
REGULAR1 C  US:MN008037    710 45:02 092:47(48-89) STILLWATER 1 SE          9.8
REGULAR2 C  US:MN002881    910 45:19 092:56(58-89) FOREST LAKE 5 NE        19.7
REGULAR3 C  US:WI007226    900 44:52 092:37(48-89) RIVER FALLS             21.3
**********************************************************************
* GPS SITE: 6A/276064      N45:38:00 W094:37:00 ELEV:  920, 1968
**********************************************************************
FIRST O. F  US:MN007294   1040 45:33 094:04(48-89) ST CLOUD WSO AP        27.2
ACTIVE   C  US:MN005325   1210 45:40 094:49(54-89) MELROSE                9.9
REGULAR1 C  US:MN001691   1230 45:35 094:24(41-89) COLLEGEVILLE ST JOHN   11.0
REGULAR2 C  US:MN004861   1290 45:59 094:51(48-89) LONG PRAIRIE           26.7
REGULAR3 C  US:MN004793   1120 45:59 094:21(32-89) LITTLE FALLS 1 N       27.4
**********************************************************************
* GPS SITE:  9/276250      N43:37:58 W096:11:41 ELEV: 1375, 1966
**********************************************************************
FIRST O. F  US:SD007667   1420 43:34 096:44(48-89) SIOUX FALLS WSFO AP     27.8
ACTIVE   C  US:MN004937   1500 43:40 096:12(50-89) LUVERNE                3.6
REGULAR1 C  US:IA007147   1350 43:26 096:10( 3-89) ROCK RAPIDS           12.7
REGULAR2 C  US:IA007664   1670 43:27 095:43(48-89) SIBLEY 5 NNE          26.1
REGULAR3 C  US:MN006565   1710 44:01 096:19(48-89) PIPESTONE             28.4
**********************************************************************
* GPS SITE:  1/276251      N47:26:00 W094:51:00 ELEV: 1364, 1982
**********************************************************************
FIRST O. F  US:ND002859    900 46:54 096:48(42-89) FARGO WSO AP           98.8
ACTIVE   C  US:MN000643   1380 47:30 094:56(48-89) BEMIDJI                6.0
REGULAR1 C  US:MN001374   1300 47:23 094:37(11-89) CASS LAKE             11.5
REGULAR2 C  US:MN004106   1490 47:13 095:12(12-89) ITASCA UNIV OF MINN   22.2
REGULAR3 C  US:MN008618   1410 47:04 094:35(48-89) WALKER AH GWAH CHING   28.2
**********************************************************************
* GPS SITE:  9/276300      N43:38:00 W095:46:00 ELEV: 1685, 1969
**********************************************************************
FIRST O. F  US:SD007667   1420 43:34 096:44(48-89) SIOUX FALLS WSFO AP     48.6
ACTIVE   C  US:MN009170   1570 43:39 095:35(71-89) WORTHINGTON 2 NNE       9.2
REGULAR1 C  US:IA007664   1670 43:27 095:43(48-89) SIBLEY 5 NNE          12.9
REGULAR2 C  US:MN004937   1500 43:40 096:12(50-89) LUVERNE               21.8
REGULAR3 C  US:IA007147   1350 43:26 096:10( 3-89) ROCK RAPIDS           24.4
**********************************************************************
* GPS SITE: 7A/277090      N44:35:00 W092:50:00 ELEV:  984, 1954
**********************************************************************
FIRST O. F  US:MN005435    830 44:53 093:13( 1-89) MINN-ST PAUL WSO AP     28.0
ACTIVE   C  US:MN007107    950 44:43 093:06(50-89) ROSEMOUNT AGRI EXP ST   16.0
REGULAR1 C  US:MN002737    980 44:40 093:11(48-89) FARMINGTON 3 NW         18.2
REGULAR2 C  US:WI002556   1030 44:44 092:28(48-89) ELLSWORTH 1 E          20.8
REGULAR3 C  US:MN009249    990 44:18 092:40(32-89) ZUMBROTA               21.2
**********************************************************************
* GPS SITE:  9/279075      N44:52:00 W095:02:00 ELEV: 1090, 1947
**********************************************************************
FIRST O. F  US:MN007294   1040 45:33 094:04(48-89) ST CLOUD WSO AP        66.7
ACTIVE   C  US:MN009004   1130 45:08 095:01(32-89) WILLMAR STATE HOSPITA  18.4
REGULAR1 C  US:MN000783   1090 44:46 094:54( 1-76) BIRD ISLAND             9.5
REGULAR2 C  US:MN006835   1030 44:33 095:05(32-89) REDWOOD FALLS FAA AP    22.0
REGULAR3 C  US:MN008025   1040 44:44 094:30(57-89) STEWART                 27.7
**********************************************************************
* GPS SITE:  1/281001      N34:08:12 W088:42:06 ELEV:  247, 1986
**********************************************************************
FIRST O. F  US:AL005749    540 34:45 087:37(40-89) MUSCLE SHOALS FAA AP    75.0
ACTIVE   C  US:MS009173    330 34:12 088:43(87-89) VERONA EXP STA           4.5
REGULAR1 C  US:MS009003    360 34:16 088:44(62-89) TUPELO WSO AP            9.2
REGULAR2 C  US:MS003208    350 34:16 088:27(48-89) FULTON 3 W              17.0
REGULAR3 C  US:MS007111    410 34:09 089:00(53-89) PONTOTOC EXP STN        17.1
**********************************************************************
* GPS SITE:  1/281016      N33:03:18 W089:34:06 ELEV:  399, 1986
**********************************************************************
FIRST O. F  US:MS003627    160 33:30 090:05(48-89) GREENWOOD FAA AP        42.8
ACTIVE   C  US:MS004776    460 33:04 089:36(48-89) KOSCIUSKO                2.0
REGULAR1 C  US:MS001489    370 32:43 089:33(55-89) CARTHAGE                23.4
REGULAR2 C  US:MS006926    220 32:53 089:59(48-89) PICKENS                 26.8
REGULAR3 C  US:MS005062    320 33:08 090:04(48-89) LEXINGTON 2 NNW         29.4
```

```
**********************************************************************
* GPS SITE:  1/281802      N31:42:06 W089:25:24 ELEV:  264, 1982
**********************************************************************
FIRST O. F  US:MS004472    330 32:19 090:05(63-89) JACKSON WSFO AP          57.5
ACTIVE   C  US:MS001852    290 31:38 089:34(30-89) COLLINS                   9.7
REGULAR1 C  US:MS004939    230 31:41 089:07(48-89) LAUREL                   18.1
REGULAR2 C  US:MS003887    160 31:19 089:18(48-89) HATTIESBURG              27.6
REGULAR3 C  US:MS002385    340 31:57 089:56(48-89) D'LO 2 SW                34.5
**********************************************************************
* GPS SITE:  2/282807      N34:21:18 W089:36:24 ELEV:  295, 1982
**********************************************************************
FIRST O. F  US:TN005954    270 35:03 090:00(40-89) MEMPHIS FAA-AP           52.9
ACTIVE   C  US:MS009079    380 34:23 089:32(30-89) UNIVERSITY                4.6
REGULAR1 C  US:MS009400    380 34:10 089:38(48-89) WATER VALLEY 1 NNE       13.1
REGULAR2 C  US:MS000488    220 34:18 089:59(48-89) BATESVILLE 2 SW          21.8
REGULAR3 C  US:MS004377    360 34:44 089:48(57-89) INDEPENDENCE 3 N         28.4
**********************************************************************
* GPS SITE:  3/283018      N34:51:54 W088:10:48 ELEV:  595, 1984
**********************************************************************
FIRST O. F  US:AL005749    540 34:45 087:37(40-89) MUSCLE SHOALS FAA AP     33.0
ACTIVE   C  US:MS004455    520 34:49 088:11(59-89) IUKA                      3.3
REGULAR1 C  US:MS001962    390 34:55 088:31(30-89) CORINTH CITY             19.4
REGULAR2 C  US:TN008108    420 35:09 088:19(27-89) SAVANNAH 6 SW            21.1
REGULAR3 C  US:MS000955    490 34:40 088:34(48-89) BOONEVILLE               25.9
**********************************************************************
* GPS SITE:  3/283019      N34:46:06 W088:08:00 ELEV:  531, 1984
**********************************************************************
FIRST O. F  US:AL005749    540 34:45 087:37(40-89) MUSCLE SHOALS FAA AP     29.4
ACTIVE   C  US:MS004455    520 34:49 088:11(59-89) IUKA                      4.4
REGULAR1 C  US:MS001962    390 34:55 088:31(30-89) CORINTH CITY             24.1
REGULAR2 C  US:MS000955    490 34:40 088:34(48-89) BOONEVILLE               25.6
REGULAR3 C  US:TN008108    420 35:09 088:19(27-89) SAVANNAH 6 SW            28.3
**********************************************************************
* GPS SITE:  2/283081      N34:14:24 W088:26:30 ELEV:  315, 1985
**********************************************************************
FIRST O. F  US:AL005749    540 34:45 087:37(40-89) MUSCLE SHOALS FAA AP     58.8
ACTIVE   C  US:MS003208    350 34:16 088:27(48-89) FULTON 3 W                1.9
REGULAR1 C  US:MS009173    330 34:12 088:43(87-89) VERONA EXP STA           16.0
REGULAR2 C  US:MS009003    360 34:16 088:44(62-89) TUPELO WSO AP            16.8
REGULAR3 C  US:AL003645    440 34:06 087:59(62-89) HAMILTON 3 S             28.0
**********************************************************************
* GPS SITE:  2/283082      N33:30:00 W089:45:00 ELEV:  505, 1989
**********************************************************************
FIRST O. F  US:MS003627    160 33:30 090:05(48-89) GREENWOOD FAA AP         19.2
ACTIVE   C  US:MS009743    390 33:29 089:38(53-89) WINONA 5 E                6.8
REGULAR1 C  US:MS003645    180 33:47 089:49(30-89) GRENADA                  19.9
REGULAR2 C  US:MS002896    440 33:33 089:14(48-89) EUPORA 2 E               30.0
REGULAR3 C  US:MS004776    460 33:04 089:36(48-89) KOSCIUSKO                31.2
**********************************************************************
* GPS SITE:  2/283083      N34:34:18 W089:34:48 ELEV:  461, 1979
**********************************************************************
FIRST O. F  US:TN005954    270 35:03 090:00(40-89) MEMPHIS FAA-AP           38.8
ACTIVE   C  US:MS004173    480 34:49 089:26(48-89) HOLLY SPRINGS 4 N        11.0
REGULAR1 C  US:MS004377    360 34:44 089:48(57-89) INDEPENDENCE 3 N         17.7
REGULAR2 C  US:MS004001    400 34:37 089:11(48-89) HICKORY FLAT             18.3
REGULAR3 C  US:MS009079    380 34:23 089:32(30-89) UNIVERSITY               19.7
**********************************************************************
* GPS SITE:  2/283085      N34:34:48 W089:31:00 ELEV:  307, 1979
**********************************************************************
FIRST O. F  US:TN005954    270 35:03 090:00(40-89) MEMPHIS FAA-AP           38.8
ACTIVE   C  US:MS004173    480 34:49 089:26(48-89) HOLLY SPRINGS 4 N        11.0
REGULAR1 C  US:MS004377    360 34:44 089:48(57-89) INDEPENDENCE 3 N         17.7
REGULAR2 C  US:MS004001    400 34:37 089:11(48-89) HICKORY FLAT             18.3
REGULAR3 C  US:MS009079    380 34:23 089:32(30-89) UNIVERSITY               19.7
**********************************************************************
* GPS SITE:  2/283087      N34:26:24 W089:30:00 ELEV:  388, 1983
**********************************************************************
FIRST O. F  US:TN005954    270 35:03 090:00(40-89) MEMPHIS FAA-AP           47.4
ACTIVE   C  US:MS009079    380 34:23 089:32(30-89) UNIVERSITY                8.3
REGULAR1 C  US:MS004001    400 34:37 089:11(48-89) HICKORY FLAT             19.8
REGULAR2 C  US:MS004173    480 34:49 089:26(48-89) HOLLY SPRINGS 4 N        22.2
REGULAR3 C  US:MS004377    360 34:44 089:48(57-89) INDEPENDENCE 3 N         23.5
```

```
**********************************************************************
* GPS SITE: 6B/283089      N34:21:06 W089:42:48 ELEV:  326, 1982
**********************************************************************
FIRST O. F  US:TN005954    270 35:03 090:00(40-89) MEMPHIS FAA-AP          53.4
ACTIVE   C  US:MS009079    380 34:23 089:32(30-89) UNIVERSITY               4.4
REGULAR1 C  US:MS009400    380 34:10 089:38(48-89) WATER VALLEY 1 NNE      12.8
REGULAR2 C  US:MS000488    220 34:18 089:59(48-89) BATESVILLE 2 SW         22.2
REGULAR3 C  US:MS004377    360 34:44 089:48(57-89) INDEPENDENCE 3 N        28.8
**********************************************************************
* GPS SITE: 6B/283090      N34:26:18 W090:10:42 ELEV:  175, 1974
**********************************************************************
FIRST O. F  US:TN005954    270 35:03 090:00(40-89) MEMPHIS FAA-AP          38.4
ACTIVE   C  US:MS000488    220 34:18 089:59(48-89) BATESVILLE 2 SW         15.3
REGULAR1 C  US:MS008998    190 34:41 090:23(59-89) TUNICA 2                20.5
REGULAR2 C  US:MS004377    360 34:44 089:48(57-89) INDEPENDENCE 3 N        23.5
REGULAR3 C  US:MS003975    360 34:50 090:00(30-89) HERNANDO                23.7
**********************************************************************
* GPS SITE: 6B/283091      N32:31:00 W088:31:18 ELEV:  231, 1979
**********************************************************************
FIRST O. F  US:MS005776    290 32:20 088:45(48-89) MERIDIAN WSO AP         18.4
ACTIVE   C  US:MS004702    320 32:41 088:38(48-89) KIPLING                 13.2
REGULAR1 C  US:MS007701    390 32:24 088:36(48-88) RUSSELL                  9.3
REGULAR2 C  US:AL004798    160 32:35 088:12(48-89) LIVINGSTON 2 SW         19.3
REGULAR3 C  US:AL003160    130 32:50 088:08(48-89) GAINESVILLE LOCK        31.5
**********************************************************************
* GPS SITE: 6B/283093      N30:25:54 W088:40:18 ELEV:   24, 1981
**********************************************************************
FIRST O. F  US:AL005478    210 30:41 088:15(48-89) MOBILE WSO AP           27.9
ACTIVE   C  US:MS006718     10 30:24 088:29(48-89) PASCAGOULA 3 NE         12.9
REGULAR1 C  US:MS000792     10 30:24 088:52(48-88) BILOXI CITY             13.8
REGULAR2 C  US:MS007840    230 30:38 089:03(54-89) SAUCIER EXP FOREST      24.6
REGULAR3 C  US:MS003671     40 30:23 089:08(48-89) GULFPORT NAVAL CENTER   29.0
**********************************************************************
* GPS SITE: 6B/283094      N30:26:12 W088:37:42 ELEV:   24, 1981
**********************************************************************
FIRST O. F  US:AL005478    210 30:41 088:15(48-89) MOBILE WSO AP           27.9
ACTIVE   C  US:MS006718     10 30:24 088:29(48-89) PASCAGOULA 3 NE         12.9
REGULAR1 C  US:MS000792     10 30:24 088:52(48-88) BILOXI CITY             13.8
REGULAR2 C  US:MS007840    230 30:38 089:03(54-89) SAUCIER EXP FOREST      24.6
REGULAR3 C  US:MS003671     40 30:23 089:08(48-89) GULFPORT NAVAL CENTER   29.0
**********************************************************************
* GPS SITE: 7A/283097      N34:55:42 W089:59:36 ELEV:  332, 1962
**********************************************************************
FIRST O. F  US:TN005954    270 35:03 090:00(40-89) MEMPHIS FAA-AP           6.9
ACTIVE   C  US:MS003975    360 34:50 090:00(30-89) HERNANDO                 8.1
REGULAR1 C  US:AR007712    220 35:07 090:11(62-89) WEST MEMPHIS            15.5
REGULAR2 C  US:MS004377    360 34:44 089:48(57-89) INDEPENDENCE 3 N        18.8
REGULAR3 C  US:MS008998    190 34:41 090:23(59-89) TUNICA 2                28.5
**********************************************************************
* GPS SITE: 7B/283099      N32:19:30 W089:24:24 ELEV:  468, 1970
**********************************************************************
FIRST O. F  US:MS004472    330 32:19 090:05(63-89) JACKSON WSFO AP         39.0
ACTIVE   C  US:MS003107    480 32:19 089:29(30-89) FOREST 3 S               4.1
REGULAR1 C  US:MS006308    350 32:20 089:05(48-89) NEWTON EXP STATION      19.5
REGULAR2 C  US:MS006811    360 32:19 089:48(48-87) PELAHATCHIE             22.4
REGULAR3 C  US:MS000523    500 32:00 089:18(39-85) BAY SPRINGS 2 NNW       24.0
**********************************************************************
* GPS SITE:  4/284024      N33:21:24 W091:02:30 ELEV:  125, 1973
**********************************************************************
FIRST O. F  US:MS003627    160 33:30 090:05(48-89) GREENWOOD FAA AP        56.2
ACTIVE   C  US:MS003605    130 33:23 091:01(20-89) GREENVILLE               2.3
REGULAR1 C  US:MS008445    130 33:26 090:55(20-89) STONEVILLE EXP STN       9.0
REGULAR2 C  US:AR002355    140 33:07 091:16(62-89) EUDORA                  21.1
REGULAR3 C  US:AR001962    140 33:33 091:23(63-89) DERMOTT 3 NE            23.8
**********************************************************************
* GPS SITE:  5/285006      N34:19:30 W088:48:48 ELEV:  329, 1979
**********************************************************************
FIRST O. F  US:AL005749    540 34:45 087:37(40-89) MUSCLE SHOALS FAA AP    74.2
ACTIVE   C  US:MS009003    360 34:16 088:44(62-89) TUPELO WSO AP            6.1
REGULAR1 C  US:MS007111    410 34:09 089:00(53-89) PONTOTOC EXP STN        16.1
REGULAR2 C  US:MS003208    350 34:16 088:27(48-89) FULTON 3 W              21.1
REGULAR3 C  US:MS000955    490 34:40 088:34(48-89) BOONEVILLE              27.5
```

```
**********************************************************************
* GPS SITE:  5/285025      N31:32:42 W090:26:36 ELEV:  420, 1977
**********************************************************************
FIRST O. F  US:MS004472    330 32:19 090:05(63-89) JACKSON WSFO AP          57.3
ACTIVE   C  US:MS001094    430 31:33 090:27(30-89) BROOKHAVEN CITY           0.5
REGULAR1 C  US:MS003920    600 31:49 090:27(75-89) HAZLEHURST 4 SW          18.8
REGULAR2 C  US:MS005987    220 31:33 090:06(48-89) MONTICELLO               20.2
REGULAR3 C  US:MS005614    410 31:14 090:28(48-89) MC COMB FAA AIRPORT       21.6
**********************************************************************
* GPS SITE:  5/285803      N34:44:12 W089:26:18 ELEV:  530, 1979
**********************************************************************
FIRST O. F  US:TN005954    270 35:03 090:00(40-89) MEMPHIS FAA-AP           38.5
ACTIVE   C  US:MS004173    480 34:49 089:26(48-89) HOLLY SPRINGS 4 N         5.5
REGULAR1 C  US:MS004001    400 34:37 089:11(48-89) HICKORY FLAT             16.7
REGULAR2 C  US:MS004377    360 34:44 089:48(57-89) INDEPENDENCE 3 N         20.6
REGULAR3 C  US:TN006274    340 35:04 089:24(48-89) MOSCOW                   22.9
**********************************************************************
* GPS SITE:  5/285805      N30:26:18 W089:03:54 ELEV:   30, 1975
**********************************************************************
FIRST O. F  US:AL005478    210 30:41 088:15(48-89) MOBILE WSO AP            51.4
ACTIVE   C  US:MS003671     40 30:23 089:08(48-89) GULFPORT NAVAL CENTER     5.6
REGULAR1 C  US:MS000792     10 30:24 088:52(48-88) BILOXI CITY              12.1
REGULAR2 C  US:MS007840    230 30:38 089:03(54-89) SAUCIER EXP FOREST       13.5
REGULAR3 C  US:MS009639    250 30:52 089:09(48-87) WIGGINS                  30.0
**********************************************************************
* GPS SITE: 7A/287012      N32:21:48 W090:41:54 ELEV:  156, 1959
**********************************************************************
FIRST O. F  US:MS004472    330 32:19 090:05(63-89) JACKSON WSFO AP          36.1
ACTIVE   C  US:MS009216    260 32:21 090:51(67-89) VICKSBURG MILITARY PK     8.9
REGULAR1 C  US:MS006476    210 32:12 090:31(48-89) OAKLEY EXP STATION       15.5
REGULAR2 C  US:MS006562    120 32:43 090:56(54-89) ONWARD                   28.0
REGULAR3 C  US:LA008923     90 32:24 091:13(48-89) TALLULAH                 30.4
**********************************************************************
* GPS SITE:  9/289030      N32:21:12 W090:45:48 ELEV:  265, 1964
**********************************************************************
FIRST O. F  US:MS004472    330 32:19 090:05(63-89) JACKSON WSFO AP          39.8
ACTIVE   C  US:MS009216    260 32:21 090:51(67-89) VICKSBURG MILITARY PK     5.1
REGULAR1 C  US:MS006476    210 32:12 090:31(48-89) OAKLEY EXP STATION       17.9
REGULAR2 C  US:LA008923     90 32:24 091:13(48-89) TALLULAH                 26.7
REGULAR3 C  US:MS006562    120 32:43 090:56(54-89) ONWARD                   27.0
**********************************************************************
* GPS SITE:  1/291002      N38:31:20 W092:21:30 ELEV:  785, 1986
**********************************************************************
FIRST O. F  US:MO007976   1270 37:14 093:23(48-89) SPRINGFIELD WSO AP      105.1
ACTIVE   C  US:MO004271    670 38:35 092:09(18-89) JEFFERSON CITY WTR PL    12.0
REGULAR1 C  US:MO001189    870 38:38 092:34(54-89) CALIFORNIA               13.6
REGULAR2 C  US:MO002503    930 38:21 092:35(48-89) ELDON                    17.0
REGULAR3 C  US:MO001791    890 38:49 092:13(69-89) COLUMBIA WSO AP          21.7
**********************************************************************
* GPS SITE:  1/291005      N38:14:00 W092:28:00 ELEV:  605, 1974
**********************************************************************
FIRST O. F  US:MO007976   1270 37:14 093:23(48-89) SPRINGFIELD WSO AP       85.3
ACTIVE   C  US:MO004694    590 38:12 092:37(48-89) LAKESIDE                  8.5
REGULAR1 C  US:MO002503    930 38:21 092:35(48-89) ELDON                    10.2
REGULAR2 C  US:MO001212   1040 38:00 092:45(48-89) CAMDENTON                22.3
REGULAR3 C  US:MO008603   1030 38:26 092:51(50-89) VERSAILLES               25.0
**********************************************************************
* GPS SITE:  1/291008      N34:14:10 W094:34:30 ELEV:  860, 1986
**********************************************************************
FIRST O. F  US:AR002574    450 35:20 094:22( 1-89) FORT SMITH WSO AP        76.7
ACTIVE   C  US:OK001168    440 34:08 094:42(64-89) BROKEN BOW DAM           10.1
REGULAR1 C  US:OK008285    840 34:28 094:40(48-89) SMITHVILLE 1 W           16.8
REGULAR2 C  US:AR001948    420 34:02 094:20(48-89) DE QUEEN                 19.7
REGULAR3 C  US:OK000584    800 34:08 094:57(48-89) BEAR MOUNTAIN TOWER      22.6
**********************************************************************
* GPS SITE:  1/291010      N37:48:10 W092:13:40 ELEV:  942, 1980
**********************************************************************
FIRST O. F  US:MO007976   1270 37:14 093:23(48-89) SPRINGFIELD WSO AP       74.6
ACTIVE   C  US:MO008777    890 37:49 092:14(49-89) WAYNESVILLE 2 W           1.0
REGULAR1 C  US:MO004825   1280 37:40 092:39(18-89) LEBANON 2 W              24.9
REGULAR2 C  US:MO004919   1180 37:33 091:54(48-89) LICKING 4 N              25.0
REGULAR3 C  US:MO007263   1180 37:57 091:46(18-89) ROLLA UNIV OF MO          27.2
```

```
**********************************************************************
* GPS SITE:  4/294031      N37:18:20 W094:18:00 ELEV:  987, 1983
**********************************************************************
FIRST O. F  US:MO0004315    980 37:10 094:30(48-89) JOPLIN FAA AP          14.6
ACTIVE   C  US:MO0001356    990 37:11 094:19(48-89) CARTHAGE               8.5
REGULAR1 C  US:MO0004705    980 37:30 094:16(48-89) LAMAR                 13.6
REGULAR2 C  US:MO0005027   1080 37:23 093:57(18-89) LOCKWOOD              20.0
REGULAR3 C  US:MO0005862   1190 37:04 093:53(61-89) MT VERNON M U SW CTR   28.3
**********************************************************************
* GPS SITE:  4/294036      N39:17:25 W094:30:40 ELEV:  983, 1983
**********************************************************************
FIRST O. F  US:MO0004358    970 39:19 094:43(72-89) KANSAS CITY WSO AP     11.2
ACTIVE   C  US:MO0007862    890 39:23 094:33(81-89) SMITHVILLE LAKE        6.8
REGULAR1 F  US:MO0004359    740 39:07 094:35(48-89) KANSAS CITY FSS        12.6
REGULAR2 C  US:MO0002474    840 39:30 094:37(48-89) EDGERTON               15.5
REGULAR3 C  US:MO0004158   1010 39:04 094:23(73-89) INDEPENDENCE 2         16.9
**********************************************************************
* GPS SITE:  4/294069      N39:05:30 W094:38:30 ELEV:  658, 1974
**********************************************************************
FIRST O. F  US:MO0004359    740 39:07 094:35(48-89) KANSAS CITY FSS        3.6
ACTIVE   C  US:MO0004158   1010 39:04 094:23(73-89) INDEPENDENCE 2         14.0
REGULAR1 C  US:KS005972    1060 38:53 094:46(39-89) OLATHE 3 E            15.9
REGULAR2 F  US:MO0004358    970 39:19 094:43(72-89) KANSAS CITY WSO AP     16.0
REGULAR3 C  US:KS004588     860 39:16 094:53(48-89) LEAVENWORTH 4 SSE      17.7
**********************************************************************
* GPS SITE:  4/295000      N39:57:40 W094:06:10 ELEV: 1006, 1977
**********************************************************************
FIRST O. F  US:MO0004358    970 39:19 094:43(72-89) KANSAS CITY WSO AP     55.2
ACTIVE   C  US:MO0003568    900 39:45 094:02(54-89) HAMILTON 2 W           15.0
REGULAR1 C  US:MO0000143   1060 39:53 094:28(48-89) AMITY                  20.0
REGULAR2 C  US:MO0000608    950 40:15 094:03(18-89) BETHANY                20.1
REGULAR3 C  US:MO0008444    840 40:05 093:38(18-87) TRENTON                26.3
**********************************************************************
* GPS SITE:  5/295047      N38:40:00 W090:35:20 ELEV:  461, 1971
**********************************************************************
FIRST O. F  US:MO0007455    540 38:45 090:22(41-89) SAINT LOUIS WSCMO AP   13.3
ACTIVE   C  US:MO0007398    450 38:41 090:31(75-89) ST CHARLES 7 SSW       4.1
REGULAR1 C  US:MO0008805    610 38:42 090:44(57-89) WELDON SPRING WLDLF A  8.1
REGULAR2 C  US:MO0007475    550 38:48 090:34(80-89) SAINT LOUIS WSFO       9.3
REGULAR3 C  US:MO0007397    470 38:47 090:30(18-89) SAINT CHARLES          9.4
**********************************************************************
* GPS SITE:  4/295058      N39:57:50 W094:06:00 ELEV: 1002, 1977
**********************************************************************
FIRST O. F  US:MO0004358    970 39:19 094:43(72-89) KANSAS CITY WSO AP     55.5
ACTIVE   C  US:MO0003568    900 39:45 094:02(54-89) HAMILTON 2 W           15.2
REGULAR1 C  US:MO0000608    950 40:15 094:03(18-89) BETHANY                19.9
REGULAR2 C  US:MO0000143   1060 39:53 094:28(48-89) AMITY                  20.2
REGULAR3 C  US:MO0008444    840 40:05 093:38(18-87) TRENTON                26.1
**********************************************************************
* GPS SITE:  4/295081      N39:58:00 W094:06:00 ELEV:  997, 1977
**********************************************************************
FIRST O. F  US:MO0004358    970 39:19 094:43(72-89) KANSAS CITY WSO AP     55.6
ACTIVE   C  US:MO0003568    900 39:45 094:02(54-89) HAMILTON 2 W           15.4
REGULAR1 C  US:MO0000608    950 40:15 094:03(18-89) BETHANY                19.7
REGULAR2 C  US:MO0000143   1060 39:53 094:28(48-89) AMITY                  20.3
REGULAR3 C  US:MO0008444    840 40:05 093:38(18-87) TRENTON                26.0
**********************************************************************
* GPS SITE:  4/295091      N39:58:10 W094:06:00 ELEV:  993, 1977
**********************************************************************
FIRST O. F  US:MO0004358    970 39:19 094:43(72-89) KANSAS CITY WSO AP     55.8
ACTIVE   C  US:MO0003568    900 39:45 094:02(54-89) HAMILTON 2 W           15.6
REGULAR1 C  US:MO0000608    950 40:15 094:03(18-89) BETHANY                19.6
REGULAR2 C  US:MO0000143   1060 39:53 094:28(48-89) AMITY                  20.3
REGULAR3 C  US:MO0008444    840 40:05 093:38(18-87) TRENTON                25.9
**********************************************************************
* GPS SITE: 7B/295393      N38:52:20 W090:41:44 ELEV:  446, 1957
**********************************************************************
FIRST O. F  US:MO0007455    540 38:45 090:22(41-89) SAINT LOUIS WSCMO AP   19.6
ACTIVE   C  US:MO0008805    610 38:42 090:44(57-89) WELDON SPRING WLDLF A  12.1
REGULAR1 C  US:MO0007397    470 38:47 090:30(18-89) SAINT CHARLES          12.2
REGULAR2 C  US:MO0002591    450 39:09 090:47(31-89) ELSBERRY 1 S           19.8
REGULAR3 C  US:MO0008725    850 38:49 091:08(18-89) WARRENTON 1 N          23.9
```

```
**********************************************************************
* GPS SITE: 6B/295403      N36:07:12 W090:10:18 ELEV:  255, 1965
**********************************************************************
FIRST O. F  US:TN005954    270 35:03 090:00(40-89) MEMPHIS FAA-AP          74.5
ACTIVE   C  US:MO004417    270 36:13 090:04(53-89) KENNETT RADIO KBOA      8.9
REGULAR1 C  US:AR005562    260 36:02 090:28(48-79) PARAGOULD              17.5
REGULAR2 C  US:AR000806    250 35:55 089:54(30-89) BLYTHEVILLE            20.7
REGULAR3 C  US:MO001364    280 36:12 089:40(18-89) CARUTHERSVILLE         28.7
**********************************************************************
* GPS SITE: 6B/295413      N36:11:49 W090:54:00 ELEV:  263, 1965
**********************************************************************
FIRST O. F  US:TN005954    270 35:03 090:00(40-89) MEMPHIS FAA-AP          94.0
ACTIVE   C  US:AR005820    330 36:16 090:59(48-89) POCAHONTAS 1            6.7
REGULAR1 C  US:AR001632    290 36:24 090:35(30-89) CORNING                22.5
REGULAR2 C  US:AR000064    260 35:54 091:05(48-89) ALICIA                 22.9
REGULAR3 C  US:AR003734    390 35:53 090:42( 1-89) JONESBORO 4 N          24.4
**********************************************************************
* GPS SITE: 7B/295473      N38:57:00 W093:27:00 ELEV:  663, 1960
**********************************************************************
FIRST O. F  US:MO004359    740 39:07 094:35(48-89) KANSAS CITY FSS         62.0
ACTIVE   C  US:MO008223    680 38:58 093:25(48-89) SWEET SPRINGS           2.1
REGULAR1 C  US:MO005298    790 39:07 093:11(48-89) MARSHALL               18.4
REGULAR2 C  US:MO008712    870 38:45 093:44(18-88) WARRENSBURG            20.6
REGULAR3 C  US:MO007632    780 38:40 093:13(37-89) SEDALIA WATER PLANT     23.3
**********************************************************************
* GPS SITE: 7B/295483      N39:11:00 W094:30:00 ELEV:  746, 1972
**********************************************************************
FIRST O. F  US:MO004359    740 39:07 094:35(48-89) KANSAS CITY FSS          6.4
ACTIVE   C  US:MO004158   1010 39:04 094:23(73-89) INDEPENDENCE 2          10.2
REGULAR1 F  US:MO004358    970 39:19 094:43(72-89) KANSAS CITY WSO AP      14.8
REGULAR2 C  US:KS004588    860 39:16 094:53(48-89) LEAVENWORTH 4 SSE       21.3
REGULAR3 C  US:MO004850   1000 38:53 094:20(62-89) LEES SUMMIT REED WLR     22.6
**********************************************************************
* GPS SITE: 6A/296067      N36:54:20 W090:43:00 ELEV:  701, 1965
**********************************************************************
FIRST O. F  US:KY006110    410 37:04 088:46(49-89) PADUCAH WSO            108.3
ACTIVE   C  US:MO001674    660 37:07 090:47(48-89) CLEARWATER DAM          15.0
REGULAR1 C  US:MO008571    520 36:58 090:59(63-89) VAN BUREN RANGER STN    15.3
REGULAR2 C  US:MO006791    370 36:46 090:24(18-89) POPLAR BLUFF R S        20.0
REGULAR3 C  US:MO002289    330 36:35 090:49(48-89) DONIPHAN                22.9
**********************************************************************
* GPS SITE: 7A/297054      N37:00:40 W094:34:00 ELEV: 1089, 1957
**********************************************************************
FIRST O. F  US:MO004315    980 37:10 094:30(48-89) JOPLIN FAA AP           11.4
ACTIVE   C  US:MO005976   1010 36:52 094:22(18-89) NEOSHO                 14.9
REGULAR1 C  US:MO001356    990 37:11 094:19(48-89) CARTHAGE                18.2
REGULAR2 C  US:KS001740    900 37:10 094:51( 1-89) COLUMBUS 1 SW           19.0
REGULAR3 C  US:OK005855    810 36:53 094:53(48-89) MIAMI                   19.6
**********************************************************************
* GPS SITE: 7A/297073      N39:46:00 W093:33:00 ELEV:  699, 1964
**********************************************************************
FIRST O. F  US:MO004358    970 39:19 094:43(72-89) KANSAS CITY WSO AP      69.6
ACTIVE   C  US:MO000980    790 39:48 093:05(48-89) BROOKFIELD              24.9
REGULAR1 F  US:MO001585    790 39:48 093:33(18-80) CHILLICOTHE RADIO KCH     2.3
REGULAR2 C  US:MO002995    670 39:42 093:18(50-83) FOUNTAIN GROVE WILDLI    14.1
REGULAR3 C  US:MO008444    840 40:05 093:38(18-87) TRENTON                 22.3
**********************************************************************
* GPS SITE:  1/301001      N47:14:42 W110:31:19 ELEV: 4196, 1981
**********************************************************************
FIRST O. F  US:MT003751   3660 47:29 111:22(48-89) GREAT FALLS WSCMO AP    42.9  REJECTED
ACTIVE   C  US:MT006902   4220 47:18 110:45(70-89) RAYNESFORD 2 NNW       11.4
REGULAR1 C  US:MT007864   4860 47:09 110:13(65-89) STANFORD               15.8
REGULAR2 C  US:MT006008   5230 47:03 110:47(67-89) NEIHART 8 NNW          18.2  REJECTED
REGULAR3 C  US:MT007540   4300 47:32 110:35(53-89) SHONKIN 7 S            20.1  REJECTED
**********************************************************************
* GPS SITE: 6A/306004      N46:25:23 W105:08:19 ELEV: 2766, 1965
**********************************************************************
FIRST O. F  US:ND002183   2580 46:47 102:48(38-89) DICKINSON FAA AP       113.9
ACTIVE   C  US:MT005754   2480 46:18 105:17(49-89) MIZPAH 4 NNW          11.0
REGULAR1 C  US:MT008165   2250 46:48 105:18(49-89) TERRY                  27.1
REGULAR2 C  US:MT006601   2770 46:25 104:30(10-89) PLEVNA                 30.5  REJECTED
REGULAR3 C  US:MT005690   2630 46:26 105:52(37-89) MILES CITY FAA AP      34.7
```

```
**********************************************************************
* GPS SITE: 6B/307066      N45:48:50 W110:00:00 ELEV: 4072, 1981
**********************************************************************
FIRST O. F  US:MT000622   4450 45:47 111:09(41-89) BELGRADE AP          55.5
ACTIVE   C  US:MT000780   4100 45:50 109:57( 1-89) BIG TIMBER           2.8
REGULAR1 C  US:MT005603   5370 46:06 110:03(60-89) MELVILLE 4 W         19.9
REGULAR2 C  US:MT005086   4650 45:42 110:27(48-89) LIVINGSTON FAA AP     23.1
REGULAR3 C  US:MT006190   4810 45:26 109:48(50-89) NYE 2                 28.0
**********************************************************************
* GPS SITE: 6A/307075      N45:43:44 W108:36:14 ELEV: 3177, 1964
**********************************************************************
FIRST O. F  US:MT000807   3570 45:48 108:32(48-89) BILLINGS WSO AP       6.0
ACTIVE   C  US:MT004345   2990 45:55 108:15(11-89) HUNTLEY EXP STN      21.4
REGULAR1 C  US:MT004506   3700 45:29 108:58(51-89) JOLIET               24.4
REGULAR2 C  US:MT001149   3880 46:06 108:53(51-89) BROADVIEW            28.9
REGULAR3 C  US:MT001938   3590 45:38 109:14(48-89) COLUMBUS              31.1
**********************************************************************
* GPS SITE:  2/307076      N45:07:18 W107:21:09 ELEV: 3750, 1985
**********************************************************************
FIRST O. F  US:WY008155   3940 44:46 106:58(48-89) SHERIDAN WSO AP       30.9
ACTIVE   C  US:MT009175   3770 45:06 107:26(48-89) WYOLA                 4.2
REGULAR1 C  US:WY001220   8040 44:46 107:32(60-89) BURGESS JUNCTION      26.1
REGULAR2 C  US:MT009240   3310 45:19 107:56(48-89) YELLOWTAIL DAM        31.3
REGULAR3 C  US:WY008160   3750 44:50 106:50(20-89) SHERIDAN FIELD STN    32.3
**********************************************************************
* GPS SITE: 6B/307088      N45:48:46 W110:00:00 ELEV: 4072, 1981
**********************************************************************
FIRST O. F  US:MT000622   4450 45:47 111:09(41-89) BELGRADE AP          55.5
ACTIVE   C  US:MT000780   4100 45:50 109:57( 1-89) BIG TIMBER           2.8
REGULAR1 C  US:MT005603   5370 46:06 110:03(60-89) MELVILLE 4 W         20.0
REGULAR2 C  US:MT005086   4650 45:42 110:27(48-89) LIVINGSTON FAA AP     23.1
REGULAR3 C  US:MT006190   4810 45:26 109:48(50-89) NYE 2                 27.9  REJECTED
**********************************************************************
* GPS SITE:  1/308129      N46:18:33 W109:07:33 ELEV: 4440, 1988
**********************************************************************
FIRST O. F  US:MT000807   3570 45:48 108:32(48-89) BILLINGS WSO AP       45.2
ACTIVE   C  US:MT000466   3730 46:19 109:22(48-89) BARBER                11.5
REGULAR1 C  US:MT001149   3880 46:06 108:53(51-89) BROADVIEW            18.5
REGULAR2 C  US:MT007263   4480 46:32 109:23(62-89) RYEGATE 18 NNW        19.8
REGULAR3 C  US:MT006862   4130 45:55 109:15( 8-89) RAPELJE 4 S           27.8
**********************************************************************
* GPS SITE:  1/311030      N40:19:20 W099:50:02 ELEV: 2300, 1982
**********************************************************************
FIRST O. F  US:NE006065   2780 41:08 100:41(48-89) NORTH PLATTE WSO AP   71.6
ACTIVE   C  US:NE000640   2160 40:08 099:50(48-89) BEAVER CITY           13.0
REGULAR1 C  US:NE001415   2260 40:16 100:10(48-89) CAMBRIDGE             18.0
REGULAR2 C  US:NE005388   2390 40:23 100:13(51-89) MEDICINE CREEK DAM    20.6
REGULAR3 C  US:NE003910   2320 40:26 099:22(48-89) HOLDREGE              25.8
**********************************************************************
* GPS SITE:  3/313018      N40:40:13 W099:03:05 ELEV: 2134, 1985
**********************************************************************
FIRST O. F  US:NE003395   1840 40:58 098:19( 1-89) GRAND ISLAND WSO AP   43.6
ACTIVE   C  US:NE004335   2170 40:42 099:06(31-89) KEARNEY               3.3
REGULAR1 C  US:NE005565   2170 40:30 098:57(48-89) MINDEN                12.9
REGULAR2 C  US:NE003910   2320 40:26 099:22(48-89) HOLDREGE              23.3
REGULAR3 C  US:NE007040   2030 41:02 098:55(48-89) RAVENNA               26.0
**********************************************************************
* GPS SITE:  3/313023      N40:49:46 W098:21:21 ELEV: 1878, 1984
**********************************************************************
FIRST O. F  US:NE003395   1840 40:58 098:19( 1-89) GRAND ISLAND WSO AP    9.7
ACTIVE   C  US:NE003660   1930 40:35 098:21(48-89) HASTINGS              17.0
REGULAR1 C  US:NE000445   1790 40:52 098:00(48-89) AURORA                18.8
REGULAR2 C  US:NE007515   1800 41:12 098:27(48-89) SAINT PAUL            26.1
REGULAR3 C  US:NE001684   1780 40:31 098:03(71-89) CLAY CENTER           26.9
**********************************************************************
* GPS SITE:  3/313024      N40:49:21 W098:05:53 ELEV: 1807, 1984
**********************************************************************
FIRST O. F  US:NE003395   1840 40:58 098:19( 1-89) GRAND ISLAND WSO AP   15.2
ACTIVE   C  US:NE000445   1790 40:52 098:00(48-89) AURORA                6.0
REGULAR1 C  US:NE001560   1700 41:07 098:00(31-89) CENTRAL CITY          20.9
REGULAR2 C  US:NE003660   1930 40:35 098:21(48-89) HASTINGS              21.1
REGULAR3 C  US:NE001684   1780 40:31 098:03(71-89) CLAY CENTER           21.3
```

```
**********************************************************************
* GPS SITE:  3/313028      N40:43:20 W096:42:32 ELEV: 1186, 1981
**********************************************************************
FIRST O. F  US:NE004795   1190 40:51 096:45(48-89) LINCOLN WSO AP          9.1
ACTIVE   C  US:NE004815   1150 40:49 096:42(55-89) LINCOLN UNIV OF NE#     6.5
REGULAR1 C  US:NE002020   1440 40:37 096:57(48-89) CRETE                  14.6
REGULAR2 C  US:NE007715   1480 40:54 097:05(48-89) SEWARD                 23.1
REGULAR3 C  US:NE008395   1100 40:40 096:11(48-89) SYRACUSE               27.8
**********************************************************************
* GPS SITE:  3/313033      N42:10:42 W097:25:43 ELEV: 1622, 1986
**********************************************************************
FIRST O. F  US:NE005995   1550 41:59 097:26(48-89) NORFOLK WSO AP         13.5
ACTIVE   C  US:NE006395   1650 42:21 097:36(48-89) OSMOND                 14.7
REGULAR1 C  US:NE008110   1490 41:57 097:14(48-89) STANTON                18.7
REGULAR2 C  US:NE005080   1580 41:50 097:27(48-89) MADISON                23.8
REGULAR3 C  US:NE006135   1720 42:04 097:57(48-89) OAKDALE                27.8
**********************************************************************
* GPS SITE:  4/314019      N42:26:47 W096:25:12 ELEV: 1100, 1976
**********************************************************************
FIRST O. F  US:IA007708   1100 42:24 096:23(48-89) SIOUX CITY WSO AP       3.7
ACTIVE   C  US:NE008935   1220 42:09 096:30(48-89) WALTHILL               20.9
REGULAR1 C  US:NE008915   1410 42:16 096:52(48-89) WAKEFIELD              26.0
REGULAR2 C  US:NE006018   1460 42:23 096:57(64-89) NE NEBR EXP STN        27.4
REGULAR3 C  US:IA004735   1200 42:48 096:10( 1-89) LE MARS                27.6
**********************************************************************
* GPS SITE:  5/315052      N41:17:59 W096:04:10 ELEV: 1188, 1969
**********************************************************************
FIRST O. F  US:NE006255    980 41:18 095:54(48-89) OMAHA (EPPLEY FIELD)    8.8
ACTIVE   C  US:NE006260   1310 41:22 096:01(54-89) OMAHA (NORTH) WSFO      5.4
REGULAR1 C  US:NE000930   1120 41:33 096:08(48-89) BLAIR                  17.6
REGULAR2 C  US:NE005362   1180 41:10 096:25(68-89) MEAD AGRONOMY LAB      20.3
REGULAR3 C  US:NE000375   1070 41:04 096:20(48-89) ASHLAND 3 NE           21.2
**********************************************************************
* GPS SITE: 6B/316700      N39:45:00 W099:22:00 ELEV: 2363, 1976
**********************************************************************
FIRST O. F  US:KS001767   1470 39:33 097:39(62-89) CONCORDIA WSO AP       92.5
ACTIVE   C  US:KS006374   1910 39:44 099:19( 1-89) PHILLIPSBURG 1 SSE     2.9
REGULAR1 C  US:KS004357   1700 39:40 099:07(52-89) KIRWIN DAM             14.5
REGULAR2 C  US:KS008648   1860 39:25 099:25(53-89) WEBSTER DAM            23.2
REGULAR3 C  US:NE003595   2000 40:05 099:12(48-89) HARLAN COUNTY LAKE      24.7
**********************************************************************
* GPS SITE:  9/316701      N40:55:49 W098:22:57 ELEV: 1871, 1964
**********************************************************************
FIRST O. F  US:NE003395   1840 40:58 098:19( 1-89) GRAND ISLAND WSO AP     4.3
ACTIVE   C  US:NE007515   1800 41:12 098:27(48-89) SAINT PAUL             19.0
REGULAR1 C  US:NE000445   1790 40:52 098:00(48-89) AURORA                 20.5
REGULAR2 C  US:NE001560   1700 41:07 098:00(31-89) CENTRAL CITY           23.8
REGULAR3 C  US:NE003660   1930 40:35 098:21(48-89) HASTINGS               24.0
**********************************************************************
* GPS SITE: 7B/316702      N41:06:43 W102:11:00 ELEV: 4244, 1973
**********************************************************************
FIRST O. F  US:NE006065   2780 41:08 100:41(48-89) NORTH PLATTE WSO AP    78.2
ACTIVE   C  US:NE000865   3370 41:04 102:05(48-89) BIG SPRINGS            6.1
REGULAR1 C  US:CO004413   3470 41:00 102:15(18-89) JULESBURG              8.5
REGULAR2 C  US:NE006385   3380 41:24 102:21(13-89) OSHKOSH               21.7
REGULAR3 C  US:NE004900   3830 41:09 102:38(48-89) LODGEPOLE              23.6
**********************************************************************
* GPS SITE: 7A/317005      N41:02:38 W096:02:42 ELEV: 1061, 1961
**********************************************************************
FIRST O. F  US:NE006255    980 41:18 095:54(48-89) OMAHA (EPPLEY FIELD)   19.2
ACTIVE   C  US:NE009090   1100 40:52 096:09(48-89) WEEPING WATER          13.4
REGULAR1 C  US:IA003290    990 41:00 095:46( 1-89) GLENWOOD 3 SW          14.8
REGULAR2 C  US:NE000375   1070 41:04 096:20(48-89) ASHLAND 3 NE           15.1
REGULAR3 C  US:NE005362   1180 41:10 096:25(68-89) MEAD AGRONOMY LAB      21.1
**********************************************************************
* GPS SITE: 7A/317017      N42:26:34 W097:09:00 ELEV: 1117, 1952
**********************************************************************
FIRST O. F  US:NE005995   1550 41:59 097:26(48-89) NORFOLK WSO AP         34.9
ACTIVE   C  US:NE006018   1460 42:23 096:57(64-89) NE NEBR EXP STN        11.0
REGULAR1 C  US:NE003630   1370 42:36 097:16( 1-89) HARTINGTON             12.4
REGULAR2 C  US:NE008915   1410 42:16 096:52(48-89) WAKEFIELD              18.9
REGULAR3 C  US:NE006395   1650 42:21 097:36(48-89) OSMOND                 23.9
```

```
*****************************************************************
* GPS SITE: 7A/317040      N41:27:39 W096:25:52 ELEV: 1172, 1950
*****************************************************************
FIRST O. F  US:NE006255    980 41:18 095:54(48-89) OMAHA (EPPLEY FIELD)     29.7
ACTIVE   C  US:NE003050   1180 41:26 096:29(48-89) FREMONT                   3.3
REGULAR1 C  US:NE000930   1120 41:33 096:08(48-89) BLAIR                    16.6
REGULAR2 C  US:NE005362   1180 41:10 096:25(68-89) MEAD AGRONOMY LAB        20.3
REGULAR3 C  US:NE008905   1210 41:12 096:38(48-89) WAHOO                    20.9
*****************************************************************
* GPS SITE: 7A/317050      N40:49:18 W096:59:55 ELEV: 1483, 1962
*****************************************************************
FIRST O. F  US:NE004795   1190 40:51 096:45(48-89) LINCOLN WSO AP           13.2
ACTIVE   C  US:NE007715   1480 40:54 097:05(48-89) SEWARD                    7.0
REGULAR1 C  US:NE002020   1440 40:37 096:57(48-89) CRETE                    14.4
REGULAR2 F  US:NE004815   1150 40:49 096:42(55-89) LINCOLN UNIV OF NEB      15.6
REGULAR3 C  US:NE002205   1620 41:15 097:08( 1-89) DAVID CITY               30.4
*****************************************************************
* GPS SITE:  1/321020      N38:32:01 W118:37:06 ELEV: 4272, 1984
*****************************************************************
FIRST O. F  US:NV008170   5430 38:04 117:05(54-89) TONOPAH AIRPORT          89.3
ACTIVE   C  US:NV003515   4220 38:33 118:40(48-89) HAWTHORNE AP             2.8
REGULAR1 C  US:NV005168   4550 38:23 118:06(28-89) MINA                     29.9
REGULAR2 C  US:CA000943   8370 38:13 119:01(64-89) BODIE                    30.8  REJECTED
REGULAR3 C  US:CA001072   6470 38:15 119:14(48-89) BRIDGEPORT               38.7  REJECTED
*****************************************************************
* GPS SITE:  1/321021      N39:33:23 W119:45:21 ELEV: 4458, 1982
*****************************************************************
FIRST O. F  US:NV006779   4400 39:30 119:47(37-89) RENO WSFO AP             4.2
ACTIVE   C  US:NV007820   5120 39:37 119:53(85-89) STEAD                    8.0
REGULAR1 C  US:NV007953   3980 39:37 119:37(67-89) SUTCLIFFE                8.5
REGULAR2 C  US:NV008761   6340 39:18 119:38(51-89) VIRGINIA CITY           18.9
REGULAR3 C  US:CA000931   5580 39:23 120:06(48-89) BOCA                     21.9  REJECTED
*****************************************************************
* GPS SITE:  2/321030      N36:10:25 W115:12:40 ELEV: 2233, 1975
*****************************************************************
FIRST O. F  US:NV004436   2160 36:05 115:10(49-89) LAS VEGAS WSO AP         6.7
ACTIVE   C  US:NV007925   1820 36:12 115:05(61-89) SUNRISE MANOR LAS VEG    7.4
REGULAR1 C  US:NV006691   3780 36:05 115:27(77-89) RED ROCK CANYON ST PK    14.7
REGULAR2 C  US:NV002243   2920 36:26 115:22(48-89) DESERT NWR-CORN CREEK   19.9
REGULAR3 C  US:NV001071   2530 35:59 114:51(31-89) BOULDER CITY            24.1  REJECTED
*****************************************************************
* GPS SITE:  2/322027      N40:59:26 W114:25:56 ELEV: 5717, 1976
*****************************************************************
FIRST O. F  US:NV002573   5080 40:50 115:47(28-89) ELKO FAA AP             71.5
ACTIVE   C  US:NV005352   4900 41:15 114:12(48-89) MONTELLO 1 SE           21.6
REGULAR1 C  US:NV006148   6300 41:04 114:32(48-85) PEQUOP                   7.4  REJECTED
REGULAR2 C  US:UT009382   4240 40:44 114:02(24-89) WENDOVER AUTOB          27.4  REJECTED
REGULAR3 C  US:NV008988   5650 41:07 114:58(48-89) WELLS                    29.2  REJECTED
*****************************************************************
* GPS SITE:  3/323010      N41:06:32 W115:01:11 ELEV: 5813, 1982
*****************************************************************
FIRST O. F  US:NV002573   5080 40:50 115:47(28-89) ELKO FAA AP             44.2
ACTIVE   C  US:NV008988   5650 41:07 114:58(48-89) WELLS                    2.8
REGULAR1 C  US:NV005092   5800 41:17 115:01(65-89) METROPOLIS              12.0
REGULAR2 C  US:NV002189   5340 41:04 115:16(51-89) DEETH                    13.2
REGULAR3 C  US:NV001740   5750 40:52 115:02(65-89) CLOVER VALLEY           16.7
*****************************************************************
* GPS SITE:  3/323013      N40:49:02 W114:10:55 ELEV: 4692, 1981
*****************************************************************
FIRST O. F  US:NV002573   5080 40:50 115:47(28-89) ELKO FAA AP             83.8
ACTIVE   C  US:UT009382   4240 40:44 114:02(24-89) WENDOVER AUTOB           9.7
REGULAR1 C  US:NV005352   4900 41:15 114:12(48-89) MONTELLO 1 SE           29.9
REGULAR2 C  US:UT005239   4410 41:22 113:50(48-89) LUCIN AP                42.1
REGULAR3 C  US:NV001740   5750 40:52 115:02(65-89) CLOVER VALLEY           44.7  REJECTED
*****************************************************************
* GPS SITE:  2/327000      N40:52:55 W114:14:53 ELEV: 5000, 1978
*****************************************************************
FIRST O. F  US:NV002573   5080 40:50 115:47(28-89) ELKO FAA AP             80.4
ACTIVE   C  US:UT009382   4240 40:44 114:02(24-89) WENDOVER AUTOB          15.2
REGULAR1 C  US:NV005352   4900 41:15 114:12(48-89) MONTELLO 1 SE           25.5
REGULAR2 C  US:UT005239   4410 41:22 113:50(48-89) LUCIN AP                39.8
REGULAR3 C  US:NV008988   5650 41:07 114:58(48-89) WELLS                    40.9  REJECTED
```

```
**********************************************************************
* GPS SITE:  3/273013      N45:07:00 W093:24:00 ELEV:  860, 1985
**********************************************************************
FIRST O. F  US:MN005435    830 44:53 093:13( 1-89) MINN-ST PAUL WSO AP      18.4
ACTIVE   C  US:MN001390    910 45:19 093:17(62-89) CEDAR                    14.9
REGULAR1 C  US:MN007377    920 44:58 093:05(56-89) SAINT PAUL               18.6
REGULAR2 C  US:MN002088    930 45:03 093:47(77-89) DELANO                   19.3
REGULAR3 C  US:MN001465    720 44:48 093:35(11-89) CHASKA                   23.6
**********************************************************************
* GPS SITE:  4/274033      N44:46:30 W093:14:00 ELEV:  977, 1981
**********************************************************************
FIRST O. F  US:MN005435    830 44:53 093:13( 1-89) MINN-ST PAUL WSO AP       7.5
ACTIVE   C  US:MN007107    950 44:43 093:06(50-89) ROSEMOUNT AGRI EXP ST     7.7
REGULAR1 C  US:MN002737    980 44:40 093:11(48-89) FARMINGTON 3 NW           7.9
REGULAR2 C  US:MN007377    920 44:58 093:05(56-89) SAINT PAUL               15.1
REGULAR3 C  US:MN001465    720 44:48 093:35(11-89) CHASKA                   17.3
**********************************************************************
* GPS SITE:  4/274034      N44:59:00 W093:14:00 ELEV:  845, 1973
**********************************************************************
FIRST O. F  US:MN005435    830 44:53 093:13( 1-89) MINN-ST PAUL WSO AP       7.0
ACTIVE   C  US:MN007377    920 44:58 093:05(56-89) SAINT PAUL                7.4
REGULAR1 C  US:MN007107    950 44:43 093:06(50-89) ROSEMOUNT AGRI EXP ST     19.5
REGULAR2 C  US:MN005136    970 45:00 093:39(48-86) MAPLE PLAIN               20.4
REGULAR3 C  US:MN001465    720 44:48 093:35(11-89) CHASKA                    21.3
**********************************************************************
* GPS SITE:  4/274037      N44:46:00 W093:15:00 ELEV:  990, 1981
**********************************************************************
FIRST O. F  US:MN005435    830 44:53 093:13( 1-89) MINN-ST PAUL WSO AP       8.2
ACTIVE   C  US:MN002737    980 44:40 093:11(48-89) FARMINGTON 3 NW           7.6
REGULAR1 C  US:MN007107    950 44:43 093:06(50-89) ROSEMOUNT AGRI EXP ST     8.1
REGULAR2 C  US:MN007377    920 44:58 093:05(56-89) SAINT PAUL               16.0
REGULAR3 C  US:MN001465    720 44:48 093:35(11-89) CHASKA                   16.5
**********************************************************************
* GPS SITE:  4/274040      N47:19:00 W093:43:00 ELEV: 1305, 1979
**********************************************************************
FIRST O. F  US:MN002248   1430 46:50 092:11(48-89) DULUTH WSO AP           79.6
ACTIVE   C  US:MN006612   1280 47:15 093:35(48-89) POKEGAMA DAM             7.8
REGULAR1 C  US:MN003303   1310 47:14 093:30(15-89) GRAND RAPIDS FOREST L    11.7
REGULAR2 C  US:MN009059   1320 47:26 094:03(48-89) WINNIBIGOSHISH DAM       17.6
REGULAR3 C  US:MN006849   1350 47:03 093:54(57-86) REMER 2                  20.3
**********************************************************************
* GPS SITE:  4/274050      N47:44:00 W096:13:00 ELEV:  930, 1971
**********************************************************************
FIRST O. F  US:ND003616    850 47:57 097:10(48-89) GRAND FORKS FAA AP       46.6
ACTIVE   C  US:MN006787   1040 47:53 096:17(48-89) RED LAKE FALLS          10.8
REGULAR1 C  US:MN006148   1150 47:50 095:51(48-89) OKLEE                   18.4
REGULAR2 C  US:MN001891    880 47:48 096:37( 1-89) CROOKSTON NW EXP STN     19.2
REGULAR3 C  US:MN002916   1310 47:34 095:44(48-89) FOSSTON 2 E              25.3
**********************************************************************
* GPS SITE:  4/274054      N43:55:00 W091:29:00 ELEV: 1300, 1972
**********************************************************************
FIRST O. F  US:WI004370    650 43:52 091:15(48-89) LA CROSSE FAA AP         12.1
ACTIVE   C  US:WI008589    660 44:00 091:26(48-89) TREMPEALEAU DAM 6         6.3
REGULAR1 C  US:MN009067    650 44:03 091:38(32-89) WINONA                   11.9
REGULAR2 C  US:WI002165    680 44:08 091:33(48-89) DODGE                    15.3
REGULAR3 C  US:MN001198   1180 43:38 091:30(48-89) CALEDONIA               19.6
**********************************************************************
* GPS SITE:  4/274055      N45:25:00 W094:04:00 ELEV:  980, 1974
**********************************************************************
FIRST O. F  US:MN007294   1040 45:33 094:04(48-89) ST CLOUD WSO AP          9.2
ACTIVE   C  US:MN007502   1020 45:33 093:46(59-89) SANTIAGO 3 E            17.2
REGULAR1 C  US:MN001107   1000 45:11 093:53(48-89) BUFFALO                 18.4
REGULAR2 C  US:MN001691   1230 45:35 094:24(41-89) COLLEGEVILLE ST JOHN    19.8
REGULAR3 C  US:MN004778   1130 45:07 094:32(48-89) LITCHFIELD              30.7
**********************************************************************
* GPS SITE:  4/274082      N44:07:30 W094:26:30 ELEV:  985, 1969
**********************************************************************
FIRST O. F  US:MN005435    830 44:53 093:13( 1-89) MINN-ST PAUL WSO AP      80.0
ACTIVE   C  US:MN005887    860 44:18 094:27(48-89) NEW ULM 2 SE             12.1
REGULAR1 C  US:MN007326   1080 43:59 094:37(48-89) ST JAMES WASTE WATER     13.1
REGULAR2 C  US:MN006007    790 44:10 094:02(54-84) NORTH MANKATO            20.5
REGULAR3 C  US:MN007405    850 44:18 093:58(48-89) ST PETER 2 SW            26.5
```

```
**********************************************************************
* GPS SITE:  ?/327084      N36:15:00 W115:02:00 ELEV: 2200, 1990
**********************************************************************
FIRST O. F  US:NV004436   2160 36:05 115:10(49-89) LAS VEGAS WSO AP          13.7
ACTIVE   C  US:NV007925   1820 36:12 115:05(61-89) SUNRISE MANOR LAS VEG      4.4
REGULAR1 C  US:NV001071   2530 35:59 114:51(31-89) BOULDER CITY              21.1
REGULAR2 C  US:NV002243   2920 36:26 115:22(48-89) DESERT NWR-CORN CREEK     22.5
REGULAR3 C  US:NV006691   3780 36:05 115:27(77-89) RED ROCK CANYON ST PK     26.0
**********************************************************************
* GPS SITE:  3/328139      N36:03:59 W115:10:46 ELEV: 2246, 1966
**********************************************************************
FIRST O. F  US:NV004436   2160 36:05 115:10(49-89) LAS VEGAS WSO AP           1.4
ACTIVE   C  US:NV007925   1820 36:12 115:05(61-89) SUNRISE MANOR LAS VEG     10.7
REGULAR1 C  US:NV006691   3780 36:05 115:27(77-89) RED ROCK CANYON ST PK     15.2
REGULAR2 C  US:NV001071   2530 35:59 114:51(31-89) BOULDER CITY              19.3
REGULAR3 C  US:NV002243   2920 36:26 115:22(48-89) DESERT NWR-CORN CREEK     27.4
**********************************************************************
* GPS SITE:  ?/331001      N43:14:00 W071:28:09 ELEV:  252, 1981
**********************************************************************
FIRST O. F  US:NH001683    350 43:12 071:30(21-89) CONCORD WSO AP            0.9
ACTIVE   C  US:NH000741    600 43:19 071:43(48-89) BLACKWATER DAM           12.7
REGULAR1 C  US:NH005211    250 42:59 071:24(48-89) MASSABESIC LAKE          16.6
REGULAR2 C  US:NH003182    430 43:28 071:39(48-89) FRANKLIN FALLS DAM       19.1
REGULAR3 C  US:NH001950   1010 43:05 071:53(76-89) DEERING                  20.6
**********************************************************************
* GPS SITE:  1/341003      N41:00:38 W074:37:11 ELEV: 1156, 1974
**********************************************************************
FIRST O. F  US:NJ006026     30 40:42 074:10(48-89) NEWARK WSO AP            32.0
ACTIVE   C  US:NJ006177    600 41:02 074:48(48-89) NEWTON ST PAUL'S ABBE     9.6
REGULAR1 C  US:NJ001582    760 41:02 074:26(26-89) CHARLOTTEBURG RESERVO     9.8
REGULAR2 C  US:NJ008644    390 41:12 074:36(48-89) SUSSEX 1 SE              13.1
REGULAR3 C  US:NJ005769    400 40:50 074:30(48-89) MORRIS PLAINS 1 W        13.7
**********************************************************************
* GPS SITE:  1/341011      N40:10:45 W074:33:11 ELEV:  107, 1970
**********************************************************************
FIRST O. F  US:NJ006026     30 40:42 074:10(48-89) NEWARK WSO AP            41.3
ACTIVE   C  US:NJ003951    100 40:16 074:34(31-89) HIGHTSTOWN 2 W            6.1
REGULAR1 C  US:NJ008883    190 40:13 074:46(31-81) TRENTON                  11.6
REGULAR2 C  US:NJ003181    190 40:16 074:15(31-87) FREEHOLD                 17.1
REGULAR3 C  US:NJ006843     50 39:56 074:42(48-89) PEMBERTON 3 S            18.7
**********************************************************************
* GPS SITE:  1/341030      N41:03:29 W074:28:28 ELEV:  899, 1971
**********************************************************************
FIRST O. F  US:NJ006026     30 40:42 074:10(48-89) NEWARK WSO AP            29.5
ACTIVE   C  US:NJ001582    760 41:02 074:26(26-89) CHARLOTTEBURG RESERVO     2.7
REGULAR1 C  US:NJ000907    280 40:54 074:24(26-89) BOONTON 1 SE             11.6
REGULAR2 C  US:NJ008644    390 41:12 074:36(48-89) SUSSEX 1 SE              11.8
REGULAR3 C  US:NJ005769    400 40:50 074:30(48-89) MORRIS PLAINS 1 W        15.6
**********************************************************************
* GPS SITE:  1/341031      N39:32:33 W075:03:44 ELEV:   85, 1973
**********************************************************************
FIRST O. F  US:NJ005581     70 39:22 075:04(48-89) MILLVILLE FAA AIRPORT    12.1
ACTIVE   C  US:NJ007936     90 39:30 075:14(49-89) SEABROOK FARMS            9.6
REGULAR1 C  US:NJ003291    130 39:42 075:07(48-89) GLASSBORO                11.3
REGULAR2 C  US:NJ008051    120 39:28 075:18(58-88) SHILOH                   13.7
REGULAR3 C  US:NJ009910     50 39:39 075:19(48-89) WOODSTOWN                15.5
**********************************************************************
* GPS SITE:  2/341033      N40:24:49 W074:53:34 ELEV:  207, 1974
**********************************************************************
FIRST O. F  US:PA000106    390 40:39 075:26(48-89) ALLENTOWN WSO AP         32.8
ACTIVE   C  US:NJ004635     60 40:22 074:57(31-89) LAMBERTVILLE              4.4
REGULAR1 C  US:NJ003029    180 40:30 074:52(26-89) FLEMINGTON               6.1
REGULAR2 C  US:PA001080    560 40:31 075:12(78-87) BUCKSVILLE              17.7
REGULAR3 C  US:PA006194     60 40:09 074:57(48-89) NESHAMINY FALLS         18.5
**********************************************************************
* GPS SITE:  2/341034      N39:49:15 W075:03:44 ELEV:   54, 1985
**********************************************************************
FIRST O. F  US:PA006889     10 39:53 075:14(48-89) PHILADELPHIA WSCMO AP     8.0
ACTIVE   C  US:NJ000346     40 39:53 075:05(50-89) AUDUBON                   4.5
REGULAR1 C  US:NJ003291    130 39:42 075:07(48-89) GLASSBORO                8.4
REGULAR2 C  US:NJ005728     50 39:58 074:58(26-89) MOORESTOWN              12.5
REGULAR3 C  US:NJ009910     50 39:39 075:19(48-89) WOODSTOWN               16.3
```

```
**********************************************************************
* GPS SITE:  2/341638      N39:48:29 W075:03:44 ELEV:   54, 1985
**********************************************************************
FIRST O. F  US:PA006889     10 39:53 075:14(48-89) PHILADELPHIA WSCMO AP      8.5
ACTIVE   C  US:NJ000346     40 39:53 075:05(50-89) AUDUBON                   5.4
REGULAR1 C  US:NJ003291    130 39:42 075:07(48-89) GLASSBORO                 7.5
REGULAR2 C  US:NJ005728     50 39:58 074:58(26-89) MOORESTOWN               13.3
REGULAR3 C  US:NJ009910     50 39:39 075:19(48-89) WOODSTOWN                15.6
**********************************************************************
* GPS SITE:  4/344042      N39:56:13 W074:56:06 ELEV:   42, 1972
**********************************************************************
FIRST O. F  US:PA006889     10 39:53 075:14(48-89) PHILADELPHIA WSCMO AP     16.3
ACTIVE   C  US:NJ005728     50 39:58 074:58(26-89) MOORESTOWN                2.7
REGULAR1 C  US:NJ000346     40 39:53 075:05(50-89) AUDUBON                   8.7
REGULAR2 C  US:NJ004229    100 39:48 074:47(26-89) INDIAN MILLS 2 W         12.4
REGULAR3 C  US:NJ006843     50 39:56 074:42(48-89) PEMBERTON 3 S            12.5
**********************************************************************
* GPS SITE: 6A/346057      N40:16:17 W074:50:06 ELEV:  222, 1961
**********************************************************************
FIRST O. F  US:PA006889     10 39:53 075:14(48-89) PHILADELPHIA WSCMO AP     34.1
ACTIVE   C  US:NJ004635     60 40:22 074:57(31-89) LAMBERTVILLE              8.9
REGULAR1 C  US:NJ008883    190 40:13 074:46(31-81) TRENTON                   5.2
REGULAR2 C  US:PA003200    140 40:13 074:56(26-78) GEORGE SCHOOL             6.4
REGULAR3 C  US:NJ001211     10 40:05 074:52(48-77) BURLINGTON               13.1
**********************************************************************
* GPS SITE: 6A/351002      N33:22:00 W104:58:00 ELEV: 3800, 1985
**********************************************************************
FIRST O. F  US:TX002797   3920 31:48 106:24(48-89) EL PASO WSO AP          136.7
ACTIVE   C  US:NM006804   5040 33:21 105:10(80-89) PICACHO 2 WSW            11.6
REGULAR1 C  US:NM007610   3670 33:18 104:32(72-89) ROSWELL FAA AP           25.5
REGULAR2 C  US:NM000992   3660 33:28 104:24(50-89) BITTER LKS W L REFUGE     33.4
REGULAR3 C  US:NM002865   5710 32:57 105:18( 1-89) ELK 2 E                  34.6
**********************************************************************
* GPS SITE:  1/351003      N33:23:00 W104:44:00 ELEV: 3800, 1982
**********************************************************************
FIRST O. F  US:TX009830   2810 31:47 103:12(38-89) WINK FAA AP             142.1
ACTIVE   C  US:NM007610   3670 33:18 104:32(72-89) ROSWELL FAA AP           12.9
REGULAR1 C  US:NM000992   3660 33:28 104:24(50-89) BITTER LKS W L REFUGE     20.1
REGULAR2 C  US:NM006804   5040 33:21 105:10(80-89) PICACHO 2 WSW            25.1
REGULAR3 C  US:NM001840   5400 33:54 105:00(80-89) CIRCLE F RANCH           38.8
**********************************************************************
* GPS SITE:  1/351005      N35:32:00 W106:14:00 ELEV: 5523, 1984
**********************************************************************
FIRST O. F  US:NM000234   5310 35:03 106:37(31-89) ALBUQUERQUE WSFO AP       39.8
ACTIVE   C  US:NM001982   5560 35:38 106:19(75-89) COCHITI DAM               8.3
REGULAR1 C  US:NM008085   6720 35:39 105:59(72-89) SANTA FE 2               16.2
REGULAR2 C  US:NM005084   7360 35:52 106:19(43-89) LOS ALAMOS              23.5
REGULAR3 C  US:NM008015   7110 35:10 106:22(48-89) SANDIA PARK              26.4
**********************************************************************
* GPS SITE:  1/351022      N36:18:00 W107:47:00 ELEV: 6727, 1983
**********************************************************************
FIRST O. F  US:NM000234   5310 35:03 106:37(31-89) ALBUQUERQUE WSFO AP      108.4
ACTIVE   C  US:NM006465   6880 36:19 107:52(57-89) OTIS                      4.8
REGULAR1 C  US:NM005290   7150 36:14 107:34(51-89) LYBROOK                  12.9
REGULAR2 C  US:NM001647   6180 36:02 107:54(48-89) CHACO CANYON N M         19.5
REGULAR3 C  US:NM001063   5810 36:40 107:58(25-89) BLOOMFIELD 3 SE          27.3
**********************************************************************
* GPS SITE:  1/351112      N32:38:15 W103:31:30 ELEV: 3760, 1982
**********************************************************************
FIRST O. F  US:TX009830   2810 31:47 103:12(38-89) WINK FAA AP             62.0
ACTIVE   C  US:NM006659   3800 32:39 103:23(48-89) PEARL                     8.3
REGULAR1 C  US:NM005370   4000 32:49 103:42(48-89) MALJAMAR 4 SE            16.0
REGULAR2 C  US:NM002677   3520 32:32 103:54(68-86) DUVAL POTASH MINE        23.0
REGULAR3 C  US:NM004026   3620 32:42 103:08(48-89) HOBBS                     23.2
**********************************************************************
* GPS SITE:  2/352006      N36:10:00 W107:20:00 ELEV: 6370, 1982
**********************************************************************
FIRST O. F  US:NM000234   5310 35:03 106:37(31-89) ALBUQUERQUE WSFO AP       87.0
ACTIVE   C  US:NM005290   7150 36:14 107:34(51-89) LYBROOK                  13.8
REGULAR1 C  US:NM008524   6640 35:56 107:28(48-89) STAR LAKE                17.8
REGULAR2 C  US:NM004960   7260 36:20 107:01(71-89) LINDRITH 3 NE            21.1
REGULAR3 C  US:NM002241   7050 36:02 106:58(48-89) CUBA                      22.5
```

```
**********************************************************************
* GPS SITE:  2/352007      N36:15:05 W107:36:15 ELEV: 7020, 1981
**********************************************************************
FIRST O. F  US:NM000234   5310 35:03 106:37(31-89) ALBUQUERQUE WSFO AP      99.8
ACTIVE   C  US:NM005290   7150 36:14 107:34(51-89) LYBROOK                  2.4
REGULAR1 C  US:NM006465   6880 36:19 107:52(57-89) OTIS                     15.3
REGULAR2 C  US:NM001647   6180 36:02 107:54(48-89) CHACO CANYON N M         22.4
REGULAR3 C  US:NM008524   6640 35:56 107:28(48-89) STAR LAKE                23.3
**********************************************************************
* GPS SITE:  2/352118      N35:10:15 W103:29:15 ELEV: 3927, 1977
**********************************************************************
FIRST O. F  US:NM001887   4970 36:27 103:09( 9-89) CLAYTON WSO AP          90.3
ACTIVE   C  US:NM007867   4230 35:07 103:20(48-89) SAN JON                  9.5
REGULAR1 C  US:NM009156   4090 35:12 103:41( 4-89) TUCUMCARI 4 NE           11.3
REGULAR2 C  US:NM001332   4600 34:54 103:23(48-89) CAMERON                  19.6
REGULAR3 C  US:NM007226      5 34:48 103:45(48-89) RAGLAND 3 SSW           29.6
**********************************************************************
* GPS SITE:  3/353010      N32:38:15 W103:31:30 ELEV: 3760, 1982
**********************************************************************
FIRST O. F  US:TX009830   2810 31:47 103:12(38-89) WINK FAA AP             62.0
ACTIVE   C  US:NM006659   3800 32:39 103:23(48-89) PEARL                    8.3
REGULAR1 C  US:NM005370   4000 32:49 103:42(48-89) MALJAMAR 4 SE            16.0
REGULAR2 C  US:NM002677   3520 32:32 103:54(68-86) DUVAL POTASH MINE        23.0
REGULAR3 C  US:NM004026   3620 32:42 103:08(48-89) HOBBS                    23.2
**********************************************************************
* GPS SITE: 6A/356033      N34:15:15 W106:55:00 ELEV: 4662, 1958
**********************************************************************
FIRST O. F  US:NM000234   5310 35:03 106:37(31-89) ALBUQUERQUE WSFO AP      58.9
ACTIVE   C  US:NM008387   4590 34:05 106:53(31-89) SOCORRO                  10.5
REGULAR1 C  US:NM000915   4740 34:25 106:50(62-89) BERNARDO                 13.5
REGULAR2 C  US:NM005353   6540 34:07 107:14(48-89) MAGDALENA                19.8
REGULAR3 C  US:NM000846   4800 34:40 106:46(48-76) BELEN                    31.1
**********************************************************************
* GPS SITE: 6A/356035      N35:05:00 W107:40:00 ELEV: 6200, 1965
**********************************************************************
FIRST O. F  US:NM000234   5310 35:03 106:37(31-89) ALBUQUERQUE WSFO AP      59.5
ACTIVE   C  US:NM003682   6520 35:10 107:54(53-89) GRANTS AIRPORT           14.4
REGULAR1 C  US:NM004719   5800 35:02 107:24(48-89) LAGUNA                   15.5
REGULAR2 C  US:NM007918   7240 35:20 107:39(48-88) SAN MATEO                17.3
REGULAR3 C  US:NM008830   7100 35:26 108:09(53-89) THOREAU 5 ENE            36.5
**********************************************************************
* GPS SITE: 6A/356401      N35:02:20 W107:28:40 ELEV: 5983, 1984
**********************************************************************
FIRST O. F  US:NM000234   5310 35:03 106:37(31-89) ALBUQUERQUE WSFO AP      48.8
ACTIVE   C  US:NM004719   5800 35:02 107:24(48-89) LAGUNA                   4.4
REGULAR1 C  US:NM002250   6160 35:06 107:31(77-89) CUBERO                   4.8
REGULAR2 C  US:NM007918   7240 35:20 107:39(48-88) SAN MATEO                22.5
REGULAR3 C  US:NM003682   6520 35:10 107:54(53-89) GRANTS AIRPORT           25.5
**********************************************************************
* GPS SITE: 6B/361008      N43:12:16 W075:25:01 ELEV:  450, 1980
**********************************************************************
FIRST O. F  US:NY008383    420 43:07 076:07(22-89) SYRACUSE WB AP           35.8
ACTIVE   C  US:NY003507    490 43:14 075:25(61-89) ROME GRIFFISS FIELD       2.0
REGULAR1 C  US:NY008737    710 43:09 075:23(50-89) UTICA CAA AP             4.1
REGULAR2 C  US:NY008739    500 43:05 075:11(48-89) UTICA 2 SE               14.5
REGULAR3 C  US:NY003889   1190 43:19 075:07(48-89) HINCKLEY                 17.0
**********************************************************************
* GPS SITE:  1/361011      N43:06:52 W076:03:02 ELEV:  395, 1984
**********************************************************************
FIRST O. F  US:NY008383    420 43:07 076:07(22-89) SYRACUSE WB AP           3.3
ACTIVE   C  US:NY008625   1300 42:50 076:02(79-89) TULLY 4 NE              19.4
REGULAR1 C  US:NY001110    510 43:20 075:45(48-89) CAMDEN                   21.4
REGULAR2 C  US:NY008627   1900 42:46 076:05(67-89) TULLY-HEIBERG FOREST     24.1
REGULAR3 C  US:NY005512   1300 42:54 075:39(26-89) MORRISVILLE             25.1
**********************************************************************
* GPS SITE:  2/361643      N45:26:09 W073:27:41 ELEV:  179, 1980
**********************************************************************
FIRST O. F  CA:7027320      90 45:31 073:25(28-89) ST HUBERT A              6.0
ACTIVE   C  CA:7024100      98 45:23 073:26(63-89) LAPRAIRIE                3.9
REGULAR1 C  CA:7025280     187 45:30 073:35( 1-89) MONTREAL MCGILL          7.4
REGULAR2 C  CA:7025267     135 45:31 073:34(71-89) MONTREAL LAFONTAINE      7.6
REGULAR3 C  CA:7025260     435 45:30 073:37(56-85) MONTREAL JEAN BREBEUF    8.7
```

```
*********************************************************************
* GPS SITE:  2/361644      N44:15:06 W074:46:15 ELEV: 1489, 1980
*********************************************************************
FIRST O. F  US:VT001081    330 44:28 073:09(20-89) BURLINGTON WSO AP        81.5  REJECTED
ACTIVE    C  US:NY008944  1510 44:09 074:54(26-89) WANAKENA RANGER SCHOO     9.5
REGULAR1 C  US:NY008631  1680 44:14 074:26(48-89) TUPPER LAKE SUNMOUNT     16.8
REGULAR2 C  US:NY008248  1700 43:53 075:02(48-89) STILLWATER RESERVOIR     28.6
REGULAR3 C  US:NY001185   410 44:35 075:10(22-89) CANTON                   30.1
*********************************************************************
* GPS SITE:  4/364017      N42:19:58 W077:44:04 ELEV: 1400, 1973
*********************************************************************
FIRST O. F  US:NY007167    550 43:07 077:40(26-89) ROCHESTER WB AP          54.2
ACTIVE    C  US:NY000085  1740 42:15 077:48(26-89) ALFRED                    6.6
REGULAR1 C  US:NY000183  1420 42:18 078:02(26-89) ANGELICA                 15.5
REGULAR2 C  US:NY001974   690 42:34 077:42(41-89) DANSVILLE               16.2
REGULAR3 C  US:NY000448  1110 42:20 077:20(53-89) BATH                     20.5
*********************************************************************
* GPS SITE:  4/364018      N42:22:45 W075:11:25 ELEV: 1070, 1974
*********************************************************************
FIRST O. F  US:NY000687  1600 42:13 075:59(51-89) BINGHAMTON WB AP         42.1
ACTIVE    C  US:NY008936  1240 42:10 075:08(56-89) WALTON                  15.0
REGULAR1 C  US:NY006232  1400 42:28 075:04(71-83) ONEONTA STATE UNIV       8.7
REGULAR2 C  US:NY000360  1020 42:18 075:29(48-89) BAINBRIDGE              15.9
REGULAR3 C  US:NY002036  1350 42:15 074:56(26-89) DELHI 2 SW              15.9
*********************************************************************
* GPS SITE:  1/371006      N35:47:00 W078:45:00 ELEV:  435, 1982
*********************************************************************
FIRST O. F  US:NC007069   380 35:52 078:47(48-89) RALEIGH DURHAM WSFO A     6.1
ACTIVE    C  US:NC007079  4080 35:47 078:42(21-89) RALEIGH STATE UNIV       2.8
REGULAR1 C  US:NC007074   420 35:44 078:41( 1-89) RALEIGH 4 SW             5.1
REGULAR2 C  US:NC001820   330 35:39 078:30(55-89) CLAYTON 3 W             16.8  REJECTED
REGULAR3 C  US:NC001677   500 35:55 079:06(48-89) CHAPEL HILL 2 W          21.7  REJECTED
*********************************************************************
* GPS SITE:  1/371024      N35:17:00 W083:11:00 ELEV: 2125, 1980
*********************************************************************
FIRST O. F  US:NC000300  2140 35:26 082:33(64-89) ASHEVILLE WSO AP         37.2  REJECTED
ACTIVE    C  US:NC002200  2190 35:19 083:11(48-89) CULLOWHEE               2.3
REGULAR1 C  US:NC003228  2080 35:11 083:23(49-89) FRANKLIN                13.2
REGULAR2 C  US:NC004055  3840 35:03 083:11(48-89) HIGHLANDS               16.1
REGULAR3 C  US:NC006341  2040 35:31 083:18(58-89) OCONALUFTEE             17.4  REJECTED
*********************************************************************
* GPS SITE:  1/371028      N36:32:00 W076:22:00 ELEV:   20, 1982
*********************************************************************
FIRST O. F  US:VA006139    20 36:54 076:12(48-89) NORFOLK WSO AP            27.0  REJECTED
ACTIVE    C  US:NC002719    10 36:19 076:12(34-89) ELIZABETH CITY           17.6
REGULAR1 C  US:VA008192    20 36:44 076:36(48-89) SUFFOLK LAKE KILBY       18.9
REGULAR2 C  US:VA004044    80 36:41 076:47(48-89) HOLLAND 1 E              25.3
REGULAR3 C  US:VA000385    10 36:40 075:55(53-89) BACK BAY WILDLIFE RFG    26.6  REJECTED
*********************************************************************
* GPS SITE:  1/371030      N36:23:00 W076:18:00 ELEV:   18, 1984
*********************************************************************
FIRST O. F  US:VA006139    20 36:54 076:12(48-89) NORFOLK WSO AP            25.9  REJECTED
ACTIVE    C  US:NC002719    10 36:19 076:12(34-89) ELIZABETH CITY           16.0
REGULAR1 C  US:VA008192    20 36:44 076:36(48-89) SUFFOLK LAKE KILBY       21.6
REGULAR2 C  US:VA000385    10 36:40 075:55(53-89) BACK BAY WILDLIFE RFG    23.2  REJECTED
REGULAR3 C  US:VA004044    80 36:41 076:47(48-89) HOLLAND 1 E              28.8  REJECTED
*********************************************************************
* GPS SITE:  1/371040      N35:55:00 W082:04:00 ELEV: 2565, 1978
*********************************************************************
FIRST O. F  US:NC000301  2240 35:36 082:32(47-89) ASHEVILLE                34.1  REJECTED
ACTIVE    C  US:NC001624  2680 35:50 082:11(48-89) CELO 2 S                 8.7
REGULAR1 C  US:NC005340  1430 35:41 082:00(49-89) MARION                   16.5
REGULAR2 C  US:NC003565  5300 36:06 081:49(55-89) GRANDFATHER MOUNTAIN     18.9
REGULAR3 C  US:NC000506  3750 36:10 081:52(48-89) BANNER ELK               20.6
*********************************************************************
* GPS SITE:  1/371352      N35:27:00 W080:14:00 ELEV:  680, 1980
*********************************************************************
FIRST O. F  US:NC001690   700 35:13 080:56(48-89) CHARLOTTE WSO AP          42.7  REJECTED
ACTIVE    C  US:NC000090   610 35:22 080:11(33-89) ALBEMARLE               6.4
REGULAR1 C  US:NC001975   690 35:25 080:36(48-89) CONCORD                  20.8
REGULAR2 C  US:NC007615   700 35:41 080:29( 1-89) SALISBURY                21.4
REGULAR3 C  US:NC007618   830 35:42 080:37(83-89) SALISBURY 9 WNW          27.6  REJECTED
```

```
**********************************************************************
* GPS SITE:  2/371645      N34:20:00 W078:39:00 ELEV:   75, 1985
**********************************************************************
FIRST O. F  US:NC009457     70 34:16 077:54(33-89) WILMINGTON WSO AP        43.1  REJECTED
ACTIVE   C  US:NC009357     90 34:24 078:48(54-89) WHITEVILLE 7 NW           9.7
REGULAR1 C  US:NC002732     60 34:38 078:35(33-89) ELIZABETHTOWN LOCK 2     21.1
REGULAR2 C  US:NC005116     40 34:01 078:33(72-89) LONGWOOD                 22.6  REJECTED
REGULAR3 C  US:SC005306     90 34:03 078:53(48-89) LORIS 1 S                23.7  REJECTED
**********************************************************************
* GPS SITE:  1/371801      N35:35:00 W082:28:00 ELEV: 2270, 1974
**********************************************************************
FIRST O. F  US:NC000300   2140 35:26 082:33(64-89) ASHEVILLE WSO AP         11.4
ACTIVE   C  US:NC000301   2240 35:36 082:32(47-89) ASHEVILLE                3.9
REGULAR1 C  US:NC000843   2290 35:37 082:21(49-89) BLACK MOUNTAIN           7.0
REGULAR2 C  US:NC003101   2090 35:27 082:29(56-89) FLETCHER 2 NE            9.3
REGULAR3 C  US:NC000724   2110 35:30 082:36(49-89) BENT CREEK               9.5
**********************************************************************
* GPS SITE:  1/371802      N36:18:00 W078:37:00 ELEV:  500, 1985
**********************************************************************
FIRST O. F  US:NC007069    380 35:52 078:47(48-89) RALEIGH DURHAM WSFO A    31.3  REJECTED
ACTIVE   C  US:NC006507    500 36:17 078:37(48-89) OXFORD 2 SW              1.2
REGULAR1 C  US:NC003969    480 36:22 078:25(33-89) HENDERSON 2 NNW          12.1
REGULAR2 C  US:NC005123    260 36:06 078:19(48-89) LOUISBURG                21.7  REJECTED
REGULAR3 C  US:NC007516    730 36:24 079:00(48-89) ROXBORO                  22.4  REJECTED
**********************************************************************
* GPS SITE:  1/371803      N35:23:00 W083:17:00 ELEV: 1895, 1976
**********************************************************************
FIRST O. F  US:NC000300   2140 35:26 082:33(64-89) ASHEVILLE WSO AP         41.5  REJECTED
ACTIVE   C  US:NC002200   2190 35:19 083:11(48-89) CULLOWHEE                7.3
REGULAR1 C  US:NC006341   2040 35:31 083:18(58-89) OCONALUFTEE              9.3
REGULAR2 C  US:NC003228   2080 35:11 083:23(49-89) FRANKLIN                 14.9
REGULAR3 C  US:NC001564   2620 35:37 083:06(49-89) CATALOOCHEE              19.1
**********************************************************************
* GPS SITE:  1/371814      N35:10:00 W083:22:00 ELEV: 2060, 1973
**********************************************************************
FIRST O. F  US:NC000300   2140 35:26 082:33(64-89) ASHEVILLE WSO AP         49.6  REJECTED
ACTIVE   C  US:NC003228   2080 35:11 083:23(49-89) FRANKLIN                 1.5
REGULAR1 C  US:NC002102   2250 35:04 083:26(48-89) COWEETA EXP STATION      7.9
REGULAR2 C  US:NC004055   3840 35:03 083:11(48-89) HIGHLANDS                13.1
REGULAR3 C  US:NC002200   2190 35:19 083:11(48-89) CULLOWHEE                14.6
**********************************************************************
* GPS SITE:  1/371817      N36:03:00 W080:09:00 ELEV:  850, 1983
**********************************************************************
FIRST O. F  US:NC003630    890 36:05 079:57(33-89) GREENSBORO WSO AP         11.4
ACTIVE   C  US:NC004063    910 35:58 079:59(48-89) HIGH POINT                11.0
REGULAR1 C  US:NC004970    760 35:51 080:16(48-89) LEXINGTON                 15.3
REGULAR2 C  US:NC009675    860 36:08 080:31(40-89) YADKINVILLE 6 E           21.3  REJECTED
REGULAR3 C  US:NC002238    840 36:25 080:13(48-89) DANBURY 1 NW              25.6  REJECTED
**********************************************************************
* GPS SITE:  1/371992      N35:42:30 W079:24:00 ELEV:  585, 1990
**********************************************************************
FIRST O. F  US:NC007069    380 35:52 078:47(48-89) RALEIGH DURHAM WSFO A     36.3  REJECTED
ACTIVE   C  US:NC007924    610 35:42 079:29(48-89) SILER CITY 2 S            4.7
REGULAR1 C  US:NC001677    500 35:55 079:06(48-89) CHAPEL HILL 2 W           22.1  REJECTED
REGULAR2 C  US:NC007656    260 35:32 079:03(72-89) SANFORD 8 NE              23.1
REGULAR3 C  US:NC000286    870 35:42 079:50(33-89) ASHEBORO 2 W              24.3
**********************************************************************
* GPS SITE:  2/372819      N35:57:00 W079:49:00 ELEV:  800, 1982
**********************************************************************
FIRST O. F  US:NC003630    890 36:05 079:57(33-89) GREENSBORO WSO AP         11.8
ACTIVE   C  US:NC004063    910 35:58 079:59(48-89) HIGH POINT                9.4
REGULAR1 C  US:NC000286    870 35:42 079:50(33-89) ASHEBORO 2 W              17.3
REGULAR2 C  US:NC001239    670 36:05 079:26(50-89) BURLINGTON FIRE STN       23.3  REJECTED
REGULAR3 C  US:NC007924    610 35:42 079:29(48-89) SILER CITY 2 S            25.4  REJECTED
**********************************************************************
* GPS SITE:  2/372824      N35:42:30 W079:24:00 ELEV:  632, 1983
**********************************************************************
FIRST O. F  US:NC007069    380 35:52 078:47(48-89) RALEIGH DURHAM WSFO A     36.3  REJECTED
ACTIVE   C  US:NC007924    610 35:42 079:29(48-89) SILER CITY 2 S            4.7
REGULAR1 C  US:NC001677    500 35:55 079:06(48-89) CHAPEL HILL 2 W           22.1  REJECTED
REGULAR2 C  US:NC007656    260 35:32 079:03(72-89) SANFORD 8 NE              23.1
REGULAR3 C  US:NC000286    870 35:42 079:50(33-89) ASHEBORO 2 W              24.3
```

```
**********************************************************************
* GPS SITE:  2/372825      N35:08:00 W080:56:00 ELEV:  610, 1987
**********************************************************************
FIRST O. F  US:NC001690    700 35:13 080:56(48-89) CHARLOTTE WSO AP          5.8
ACTIVE    C  US:SC009350   690 34:56 081:02(48-89) WINTHROP COLLEGE        14.9
REGULAR1 C  US:NC003356    760 35:17 081:11(30-89) GASTONIA                17.5
REGULAR2 C  US:TN008160    470 35:10 080:37(48-89) SELMER                  18.1
REGULAR3 C  US:NC005771    580 34:58 080:30(33-89) MONROE 4 SE             27.1  REJECTED
**********************************************************************
* GPS SITE:  3/373008      N35:16:00 W081:21:00 ELEV:  965, 1984
**********************************************************************
FIRST O. F  US:NC001690    700 35:13 080:56(48-89) CHARLOTTE WSO AP         23.8  REJECTED
ACTIVE    C  US:NC003356   760 35:17 081:11(30-89) GASTONIA                9.5
REGULAR1 C  US:NC007845    920 35:19 081:32(24-89) SHELBY 2 NNE            10.9
REGULAR2 C  US:NC004996    980 35:28 081:19(52-89) LINCOLNTON 4 W          13.9
REGULAR3 C  US:SC006293    500 35:03 081:30(48-89) NINETY NINE ISLAND$     17.2
**********************************************************************
* GPS SITE:  3/373011      N35:52:00 W077:58:00 ELEV:  165, 1977
**********************************************************************
FIRST O. F  US:NC007069    380 35:52 078:47(48-89) RALEIGH DURHAM WSFO A    45.8  REJECTED
ACTIVE    C  US:NC009476   110 35:42 077:57(48-89) WILSON 3 SW             11.5
REGULAR1 C  US:NC006044    210 35:58 077:58(33-87) NASHVILLE                6.9
REGULAR2 C  US:NC007400    110 35:54 077:43(48-89) ROCKY MOUNT 8 ESE       14.2
REGULAR3 C  US:NC008500     40 35:53 077:32(48-89) TARBORO 1 S             24.3
**********************************************************************
* GPS SITE:  3/373044      N36:03:00 W078:49:00 ELEV:  335, 1966
**********************************************************************
FIRST O. F  US:NC007069    380 35:52 078:47(48-89) RALEIGH DURHAM WSFO A    12.8
ACTIVE    C  US:NC002515   410 36:02 078:58( 1-89) DURHAM                  8.5
REGULAR1 C  US:NC001677    500 35:55 079:06(48-89) CHAPEL HILL 2 W         18.3
REGULAR2 C  US:NC007079   4080 35:47 078:42(21-89) RALEIGH STATE UNIV      19.5  REJECTED
REGULAR3 C  US:NC006507    500 36:17 078:37(48-89) OXFORD 2 SW             19.6  REJECTED
**********************************************************************
* GPS SITE:  3/373807      N35:58:00 W080:14:00 ELEV:  780, 1980
**********************************************************************
FIRST O. F  US:NC003630    890 36:05 079:57(33-89) GREENSBORO WSO AP        17.8
ACTIVE    C  US:NC004970   760 35:51 080:16(48-89) LEXINGTON               8.3
REGULAR1 C  US:NC004063    910 35:58 079:59(48-89) HIGH POINT              14.0
REGULAR2 C  US:NC005743    810 35:53 080:34(48-89) MOCKSVILLE              19.5
REGULAR3 C  US:NC009675    860 36:08 080:31(40-89) YADKINVILLE 6 E         19.6
**********************************************************************
* GPS SITE:  3/373816      N35:37:00 W078:52:00 ELEV:  350, 1973
**********************************************************************
FIRST O. F  US:NC007069    380 35:52 078:47(48-89) RALEIGH DURHAM WSFO A    17.9
ACTIVE    C  US:NC007656   260 35:32 079:03(72-89) SANFORD 8 NE           11.8  REJECTED
REGULAR1 C  US:NC007074    420 35:44 078:41( 1-89) RALEIGH 4 SW            13.1
REGULAR2 C  US:NC007079   4080 35:47 078:42(21-89) RALEIGH STATE UNIV      14.8
REGULAR3 C  US:NC001820    330 35:39 078:30(55-89) CLAYTON 3 W             20.7  REJECTED
**********************************************************************
* GPS SITE:  5/375037      N35:36:00 W082:25:00 ELEV: 2110, 1972
**********************************************************************
FIRST O. F  US:NC000300   2140 35:26 082:33(64-89) ASHEVILLE WSO AP        13.7
ACTIVE    C  US:NC000843   2290 35:37 082:21(49-89) BLACK MOUNTAIN         3.9
REGULAR1 C  US:NC000301   2240 35:36 082:32(47-89) ASHEVILLE               6.6
REGULAR2 C  US:NC003101   2090 35:27 082:29(56-89) FLETCHER 2 NE           11.0
REGULAR3 C  US:NC000724   2110 35:30 082:36(49-89) BENT CREEK              12.4
**********************************************************************
* GPS SITE:  5/375826      N36:28:00 W080:46:00 ELEV: 1140, 1977
**********************************************************************
FIRST O. F  US:NC003630    890 36:05 079:57(33-89) GREENSBORO WSO AP        52.7  REJECTED
ACTIVE    C  US:NC005890   1030 36:31 080:37( 1-89) MOUNT AIRY             9.0
REGULAR1 C  US:VA003267   2390 36:40 080:55(48-89) GALAX RADIO WBOB        16.1
REGULAR2 C  US:NC009675    860 36:08 080:31(40-89) YADKINVILLE 6 E         26.9
REGULAR3 C  US:NC006256   1120 36:10 081:09(33-89) NORTH WILKESBORO        29.8
**********************************************************************
* GPS SITE:  5/375827      N36:23:00 W079:36:00 ELEV:  630, 1973
**********************************************************************
FIRST O. F  US:NC003630    890 36:05 079:57(33-89) GREENSBORO WSO AP        28.5  REJECTED
ACTIVE    C  US:NC007202   890 36:23 079:42(62-89) REIDSVILLE 2 NW         5.6
REGULAR1 C  US:VA002245    410 36:35 079:23(48-89) DANVILLE (BRIDGE ST)    18.3
REGULAR2 C  US:NC001239    670 36:05 079:26(50-89) BURLINGTON FIRE STN     22.7
REGULAR3 C  US:VA005300    760 36:42 079:53(48-89) MARTINSVILLE FILT PL    26.9
```

```
*********************************************************************
* GPS SITE:  2/382001      N47:48:00 W097:33:00 ELEV:  922, 1978
*********************************************************************
FIRST O. F  US:ND003616    850 47:57 097:10(48-89) GRAND FORKS FAA AP       20.6
ACTIVE   C  US:ND007986   1520 47:36 097:54(48-89) SHARON                   21.4
REGULAR1 C  US:ND005660    940 47:30 097:19(11-88) MAYVILLE                 23.4
REGULAR2 C  US:ND003621    830 47:56 097:05(32-89) GRAND FORKS UNIVERSIT    23.5
REGULAR3 C  US:ND007027   1530 48:02 098:00(48-89) PETERSBURG 2 N           26.4
*********************************************************************
* GPS SITE:  3/383005      N47:55:00 W098:40:00 ELEV: 1518, 1985
*********************************************************************
FIRST O. F  US:ND004413   1490 46:55 098:41(48-89) JAMESTOWN FAA AP        69.1
ACTIVE   C  US:ND002158   1460 48:07 098:52(48-89) DEVILS LAKE KDLR        16.6
REGULAR1 C  US:ND005730   1550 47:38 098:37(48-89) MC HENRY 5 NNW          19.7
REGULAR2 C  US:ND005764   1470 47:46 098:10(48-89) MC VILLE               25.4
REGULAR3 C  US:ND007027   1530 48:02 098:00(48-89) PETERSBURG 2 N          31.9
*********************************************************************
* GPS SITE:  3/383006      N48:21:18 W100:04:01 ELEV: 1530, 1989
*********************************************************************
FIRST O. F  US:ND005988   1720 48:16 101:17(48-89) MINOT FAA AIRPORT       56.3
ACTIVE   C  US:ND007704   1550 48:21 100:00(48-89) RUGBY                    3.1
REGULAR1 C  US:ND008792   1480 48:21 100:24(48-89) TOWNER 2 NE             15.3
REGULAR2 C  US:ND009445   1460 48:39 100:18(48-89) WILLOW CITY             23.0
REGULAR3 C  US:ND002304   1550 48:02 100:17(64-89) DRAKE 8 NE              24.4
*********************************************************************
* GPS SITE:  5/385002      N46:41:35 W096:49:50 ELEV:  915, 1973
*********************************************************************
FIRST O. F  US:ND002859    900 46:54 096:48(42-89) FARGO WSO AP             14.4
ACTIVE   C  US:MN003104    890 47:05 096:47(62-89) GEORGETOWN 1 E           27.0
REGULAR1 C  US:ND005754   1080 46:24 097:14(48-89) MC LEOD 3 E             27.9
REGULAR2 C  US:ND009100    960 46:19 096:36( 1-89) WAHPETON 3 N            28.2
REGULAR3 C  US:MN007149   1210 46:29 096:16(59-89) ROTHSAY                  30.5
*********************************************************************
* GPS SITE:  3/393013      N38:52:59 W083:53:28 ELEV:  960, 1970
*********************************************************************
FIRST O. F  US:WV004393    830 38:22 082:33(61-89) HUNTINGTON WSO AP        80.8
ACTIVE   C  US:OH007120    880 38:47 083:48(59-89) RIPLEY EXP FARM           8.5
REGULAR1 C  US:KY005243    520 38:41 083:47(48-89) MAYSVILLE SEWAGE PLAN    15.0
REGULAR2 C  US:OH001536    500 38:48 084:10(38-89) CHILO MELDAHL LOCK &     15.9
REGULAR3 C  US:OH006493    810 38:57 083:25(48-85) PEEBLES                  25.9
*********************************************************************
* GPS SITE:  3/393801      N39:58:04 W080:45:23 ELEV:  655, 1983
*********************************************************************
FIRST O. F  US:WV006202   1240 39:39 079:55(48-89) MORGANTOWN FAA AP       49.7
ACTIVE   C  US:WV007018    640 40:09 080:42(81-89) PIKE ISLAND L AND D      12.9
REGULAR1 C  US:WV006248    620 39:54 080:45(63-87) MOUNDSVILLE               4.7
REGULAR2 C  US:OH000430   1250 39:59 081:09(40-89) BARNESVILLE             20.9
REGULAR3 C  US:OH003500    620 39:40 080:52(75-89) HANNIBAL LOCK & DAM      21.6
*********************************************************************
* GPS SITE:  4/394018      N39:49:58 W083:59:46 ELEV:  858, 1975
*********************************************************************
FIRST O. F  US:OH001786    810 40:00 082:53(48-89) COLUMBUS WSO AP          60.2
ACTIVE   C  US:OH002067    750 39:46 084:11(34-89) DAYTON                   10.9
REGULAR1 C  US:OH002075   1000 39:54 084:12(50-89) DAYTON WSCMO AP          11.8
REGULAR2 C  US:OH007935    930 39:58 083:49(48-89) SPRINGFIELD NEW WTR W     13.3
REGULAR3 C  US:OH009361    970 39:37 083:54(36-89) XENIA 6 SSE              15.8
*********************************************************************
* GPS SITE:  4/394031      N39:59:33 W083:07:07 ELEV:  872, 1969
*********************************************************************
FIRST O. F  US:OH001786    810 40:00 082:53(48-89) COLUMBUS WSO AP          12.5
ACTIVE   C  US:OH001783    750 39:54 082:54(48-89) COLUMBUS VLY CROSSING     13.2
REGULAR1 C  US:OH001781    880 39:57 083:07(52-83) COLUMBUS SULLIVANT AV     2.9
REGULAR2 C  US:OH008951    810 40:08 082:57(52-89) WESTERVILLE               13.2
REGULAR3 C  US:OH004681   1020 39:53 083:27(36-89) LONDON WATER WORKS       19.1
*********************************************************************
* GPS SITE:  5/395003      N41:18:21 W082:09:05 ELEV:  753, 1988
*********************************************************************
FIRST O. F  US:OH001657    770 41:25 081:52(48-89) CLEVELAND WSO AP         16.6
ACTIVE   C  US:OH006196    820 41:16 082:13(36-89) OBERLIN                   4.3
REGULAR1 C  US:OH002599    730 41:23 082:04(49-89) ELYRIA 3 E                6.9
REGULAR2 C  US:OH001541   1060 41:04 081:54(36-89) CHIPPEWA LAKE            21.1
REGULAR3 C  US:OH006118    670 41:16 082:37( 1-89) NORWALK WST WTR TRT P     24.3
```

```
*********************************************************************
* GPS SITE: 7B/395010       N40:58:47 W080:38:07 ELEV: 1160, 1975
*********************************************************************
FIRST O. F  US:OH009406   1180 41:15 080:40(48-89) YOUNGSTOWN WSO AP        17.6
ACTIVE    C  US:OH001245   1140 41:01 080:46(17-89) CANFIELD 1 S            7.0
REGULAR1 C  US:OH005356    890 41:09 080:47(40-89) MINERAL RIDGE WATER W    13.1
REGULAR2 C  US:PA006233    830 41:01 080:22(26-89) NEW CASTLE 1 N           14.1
REGULAR3 C  US:OH008769    900 41:12 080:49(36-89) WARREN 3 S               16.9
*********************************************************************
* GPS SITE: 6A/396019       N39:43:00 W082:30:00 ELEV:  840, 1965
*********************************************************************
FIRST O. F  US:OH001786    810 40:00 082:53(48-89) COLUMBUS WSO AP          27.9
ACTIVE    C  US:OH004383    860 39:44 082:38(36-89) LANCASTER 2 NW           6.8
REGULAR1 C  US:OH005857    890 39:44 082:13(42-89) NEW LEXINGTON 2 NW       15.5
REGULAR2 C  US:OH001783    750 39:54 082:54(48-89) COLUMBUS VLY CROSSING    24.3
REGULAR3 C  US:OH001592    670 39:37 082:57(42-89) CIRCLEVILLE              24.5
*********************************************************************
* GPS SITE: 7A/397021       N41:35:52 W083:33:05 ELEV:  628, 1967
*********************************************************************
FIRST O. F  US:OH002786    800 41:01 083:40(48-89) FINDLAY FAA AP           40.6
ACTIVE    C  US:OH008366    600 41:39 083:32(48-89) TOLEDO BLADE             3.7
REGULAR1 C  US:OH008357    670 41:35 083:48(55-89) TOLEDO EXPRESS WSO AP    12.9
REGULAR2 C  US:OH000862    680 41:23 083:37(36-89) BOWLING GREEN            15.2
REGULAR3 C  US:OH006346    580 41:36 083:12(72-89) OTTAWA NWR               18.2
*********************************************************************
* GPS SITE:  9/399006       N39:30:13 W083:53:25 ELEV: 1008, 1964
*********************************************************************
FIRST O. F  US:OH001786    810 40:00 082:53(48-89) COLUMBUS WSO AP          63.6
ACTIVE    C  US:OH009219   1030 39:29 083:49(36-89) WILMINGTON 3 N          4.2
REGULAR1 C  US:OH009361    970 39:37 083:54(36-89) XENIA 6 SSE              7.8
REGULAR2 C  US:OH002928    670 39:33 084:19(48-89) FRANKLIN                 23.0
REGULAR3 C  US:OH002067    750 39:46 084:11(34-89) DAYTON                   24.0
*********************************************************************
* GPS SITE:  9/399022       N40:02:51 W082:54:09 ELEV:  841, 1970
*********************************************************************
FIRST O. F  US:OH001786    810 40:00 082:53(48-89) COLUMBUS WSO AP           3.4
ACTIVE    C  US:OH008951    810 40:08 082:57(52-89) WESTERVILLE              6.4
REGULAR1 C  US:OH001783    750 39:54 082:54(48-89) COLUMBUS VLY CROSSING    10.2
REGULAR2 C  US:OH001781    880 39:57 083:07(52-83) COLUMBUS SULLIVANT AV    13.2
REGULAR3 C  US:OH002119    870 40:17 083:04(36-89) DELAWARE                 18.5
*********************************************************************
* GPS SITE:  1/401015       N35:05:00 W096:50:00 ELEV:  946, 1977
*********************************************************************
FIRST O. F  US:OK006661   1280 35:24 097:36(48-89) OKLAHOMA CITY WSFO AP    48.5
ACTIVE    C  US:OK000830   1280 35:07 097:04(52-89) BLANCHARD 2 SSW         13.4
REGULAR1 C  US:OK008042    870 35:14 096:40(48-89) SEMINOLE                 14.0
REGULAR2 C  US:OK000017   1020 34:47 096:41( 7-89) ADA                      22.4
REGULAR3 C  US:OK004235    860 35:05 096:24( 1-89) HOLDENVILLE              24.5
*********************************************************************
* GPS SITE:  1/401017       N35:50:00 W095:30:00 ELEV:  526, 1981
*********************************************************************
FIRST O. F  US:OK008992    670 36:11 095:54(48-89) TULSA WSO AP             32.9
ACTIVE    C  US:OK006130    580 35:46 095:20(48-89) MUSKOGEE                 10.4
REGULAR1 C  US:OK009247    590 35:58 095:22(48-89) WAGONER                  11.9
REGULAR2 C  US:OK000782    610 35:58 095:53(48-89) BIXBY                    23.4
REGULAR3 C  US:OK009445    550 35:29 095:12(48-89) WEBBERS FALLS 5 WSW      29.5
*********************************************************************
* GPS SITE:  3/403018       N35:25:00 W097:20:00 ELEV: 1294, 1973
*********************************************************************
FIRST O. F  US:OK006661   1280 35:24 097:36(48-89) OKLAHOMA CITY WSFO AP    15.1
ACTIVE    C  US:OK005779    930 35:30 096:59(48-89) MEEKER 4 W               20.5
REGULAR1 C  US:OK000830   1280 35:07 097:04(52-89) BLANCHARD 2 SSW          25.6
REGULAR2 C  US:OK007327   1040 34:58 097:26(48-89) PURCELL 5 SW             31.6
REGULAR3 C  US:OK001684    950 35:42 096:53( 1-89) CHANDLER 1               32.0
*********************************************************************
* GPS SITE:  2/404086       N35:04:00 W097:58:00 ELEV: 1103, 1971
*********************************************************************
FIRST O. F  US:OK006661   1280 35:24 097:36(48-89) OKLAHOMA CITY WSFO AP    31.0
ACTIVE    C  US:OK001750   1090 35:03 097:55(53-89) CHICKASHA EXP STATION     3.1
REGULAR1 C  US:OK000224   1200 35:06 098:14(48-89) ANADARKO 2 NNE           15.3
REGULAR2 C  US:OK005216    980 34:49 097:39(48-89) LINDSAY 2 W              24.9
REGULAR3 C  US:OK007327   1040 34:58 097:26(48-89) PURCELL 5 SW             31.0
```

```
**********************************************************************
* GPS SITE:  2/404087      N34:38:00 W099:16:00 ELEV: 1350, 1985
**********************************************************************
FIRST O. F  US:TX009729    990 33:58 098:29( 1-89) WICHITA FALLS WSO AP      65.0
ACTIVE   C  US:OK000179   1380 34:35 099:02(48-89) ALTUS IRR RESEARCH ST     14.1
REGULAR1 C  US:OK005509   1520 34:50 099:26(48-89) MANGUM RESEARCH STATI     15.8
REGULAR2 C  US:OK000184   1530 34:53 099:18(48-89) ALTUS DAM                16.2
REGULAR3 C  US:OK003353   1300 34:24 099:01( 5-89) FREDERICK                22.4
**********************************************************************
* GPS SITE:  2/404088      N36:39:00 W097:11:00 ELEV: 1005, 1975
**********************************************************************
FIRST O. F  US:OK007201   1000 36:44 097:06(48-89) PONCA CITY FAA AP         7.4
ACTIVE   C  US:OK000818   1030 36:49 097:14(74-89) BLACKWELL 2 E            11.8
REGULAR1 C  US:OK000755   1000 36:32 097:27(48-89) BILLINGS                16.9
REGULAR2 C  US:OK006278   1150 36:53 097:03( 1-89) NEWKIRK                 17.7
REGULAR3 C  US:OK007012   1030 36:17 097:18(48-89) PERRY                    26.1
**********************************************************************
* GPS SITE:  2/404154      N34:44:00 W097:58:00 ELEV: 1317, 1989
**********************************************************************
FIRST O. F  US:OK006661   1280 35:24 097:36(48-89) OKLAHOMA CITY WSFO AP     49.5
ACTIVE   C  US:OK002660   1130 34:30 097:58(48-89) DUNCAN                   17.3
REGULAR1 C  US:OK005216    980 34:49 097:39(48-89) LINDSAY 2 W              18.6
REGULAR2 C  US:OK001750   1090 35:03 097:55(53-89) CHICKASHA EXP STATION     20.9
REGULAR3 C  US:OK000224   1200 35:06 098:14(48-89) ANADARKO 2 NNE           28.5
**********************************************************************
* GPS SITE:  9/404155      N36:37:11 W095:55:45 ELEV:  733, 1970
**********************************************************************
FIRST O. F  US:OK008992    670 36:11 095:54(48-89) TULSA WSO AP             30.2
ACTIVE   C  US:OK000548    720 36:45 096:00(48-89) BARTLESVILLE 2 W          9.8
REGULAR1 C  US:OK000535    770 36:34 096:10(48-89) BARNSDALL                13.7
REGULAR2 C  US:OK006485    730 36:42 095:38(48-89) NOWATA                   17.3
REGULAR3 C  US:OK004393    740 36:55 096:06(48-89) HULAH DAM                22.6
**********************************************************************
* GPS SITE:  3/404157      N34:04:00 W095:21:00 ELEV:  606, 1986
**********************************************************************
FIRST O. F  US:AR002574    450 35:20 094:22( 1-89) FORT SMITH WSO AP       103.8
ACTIVE   C  US:OK004384    570 34:00 095:31(48-89) HUGO                     10.6
REGULAR1 C  US:OK000256    520 34:15 095:38(48-89) ANTLERS                  20.6
REGULAR2 C  US:OK000584    800 34:08 094:57(48-89) BEAR MOUNTAIN TOWER       23.4
REGULAR3 C  US:TX006794    540 33:40 095:34( 1-89) PARIS                    30.3
**********************************************************************
* GPS SITE:  5/404158      N36:37:11 W095:55:45 ELEV:  733, 1990
**********************************************************************
FIRST O. F  US:OK008992    670 36:11 095:54(48-89) TULSA WSO AP             28.8
ACTIVE   C  US:OK000548    720 36:45 096:00(48-89) BARTLESVILLE 2 W          11.8
REGULAR1 C  US:OK000535    770 36:34 096:10(48-89) BARNSDALL                15.0
REGULAR2 C  US:OK006485    730 36:42 095:38(48-89) NOWATA                   16.3
REGULAR3 C  US:OK004393    740 36:55 096:06(48-89) HULAH DAM                24.5
**********************************************************************
* GPS SITE:  3/404160      N34:43:00 W096:43:00 ELEV:  968, 1979
**********************************************************************
FIRST O. F  US:OK006661   1280 35:24 097:36(48-89) OKLAHOMA CITY WSFO AP     68.8
ACTIVE   C  US:OK000017   1020 34:47 096:41( 7-89) ADA                       5.0
REGULAR1 C  US:OK001745   1000 34:30 096:58(78-89) CHICKASAW NRA             20.7
REGULAR2 C  US:OK004235    860 35:05 096:24( 1-89) HOLDENVILLE              31.0
REGULAR3 C  US:OK006926    940 34:44 097:17( 1-89) PAULS VALLEY 4 WSW       32.2
**********************************************************************
* GPS SITE:  1/404161      N34:04:00 W096:55:00 ELEV:  817, 1982
**********************************************************************
FIRST O. F  US:TX002242    550 32:54 097:02(74-89) DAL-FTW REG WSCMO AP      80.8
ACTIVE   C  US:OK005468    770 34:05 096:46(48-89) MADILL                    8.7
REGULAR1 C  US:OK005563    850 33:56 097:07(48-89) MARIETTA                 14.7
REGULAR2 C  US:OK000292    860 34:12 097:09( 1-89) ARDMORE                  16.2
REGULAR3 C  US:TX002394    610 33:49 096:34(40-89) DENISON DAM              26.5
**********************************************************************
* GPS SITE:  3/404162      N34:37:00 W098:00:00 ELEV: 1193, 1985
**********************************************************************
FIRST O. F  US:TX009729    990 33:58 098:29( 1-89) WICHITA FALLS WSO AP      52.7
ACTIVE   C  US:OK002660   1130 34:30 097:58(48-89) DUNCAN                    8.3
REGULAR1 C  US:OK005216    980 34:49 097:39(48-89) LINDSAY 2 W              24.2
REGULAR2 C  US:OK009278   1010 34:21 098:18(48-89) WALTERS                  25.1
REGULAR3 C  US:OK005063   1150 34:37 098:27(48-89) LAWTON                   25.6
```

```
**********************************************************************
* GPS SITE:  2/404163      N35:49:00 W098:31:00 ELEV: 1524, 1986
**********************************************************************
FIRST O. F  US:OK006661   1280 35:24 097:36(48-89) OKLAHOMA CITY WSFO AP     53.4
ACTIVE   C  US:OK009364   1550 35:51 098:25(48-89) WATONGA                    2.5
REGULAR1 C  US:OK003497   1600 35:38 098:19(48-89) GEARY                     13.5
REGULAR2 C  US:OK006629   1210 36:07 098:19(48-89) OKEENE                    21.2
REGULAR3 C  US:OK001445   1650 36:05 098:36(48-89) CANTON DAM                21.6
**********************************************************************
* GPS SITE:  2/404164      N36:20:00 W098:30:00 ELEV: 1314, 1976
**********************************************************************
FIRST O. F  US:OK003407   2190 36:18 099:46(48-89) GAGE FAA AP              70.6
ACTIVE   C  US:OK001445   1650 36:05 098:36(48-89) CANTON DAM               18.1
REGULAR1 C  US:OK006629   1210 36:07 098:19(48-89) OKEENE                   18.1
REGULAR2 C  US:OK004019   1350 36:32 098:16(48-89) HELENA 1 SSE             19.0
REGULAR3 C  US:OK009404   1500 36:35 098:52(48-89) WAYNOKA                  26.7
**********************************************************************
* GPS SITE:  2/404165      N36:23:00 W098:14:00 ELEV: 1319, 1982
**********************************************************************
FIRST O. F  US:OK007201   1000 36:44 097:06(48-89) PONCA CITY FAA AP        65.7
ACTIVE   C  US:OK004019   1350 36:32 098:16(48-89) HELENA 1 SSE             11.0
REGULAR1 C  US:OK002912   1250 36:25 097:52( 1-89) ENID                     18.7
REGULAR2 C  US:OK006629   1210 36:07 098:19(48-89) OKEENE                   19.5
REGULAR3 C  US:OK003740   1200 36:45 098:08(48-89) GREAT SALT PLAINS DAM    25.6
**********************************************************************
* GPS SITE:  5/404166      N35:02:26 W095:42:16 ELEV:  620, 1990
**********************************************************************
FIRST O. F  US:AR002574    450 35:20 094:22( 1-89) FORT SMITH WSO AP        78.3
ACTIVE   C  US:OK005664    760 34:53 095:47(53-89) MC ALESTER FAA AP        11.7
REGULAR1 C  US:OK003884    680 35:12 095:53(49-89) HANNA                    15.0
REGULAR2 C  US:OK002993    620 35:18 095:35(48-89) EUFAULA                  19.2
REGULAR3 C  US:OK004975    730 35:18 095:22(70-89) LAKE EUFAULA             26.2
**********************************************************************
* GPS SITE:  5/405021      N36:11:11 W095:20:41 ELEV:  634, 1988
**********************************************************************
FIRST O. F  US:OK008992    670 36:11 095:54(48-89) TULSA WSO AP             31.0
ACTIVE   C  US:OK007309    640 36:24 095:18(48-89) PRYOR 6 N                15.0
REGULAR1 C  US:OK009247    590 35:58 095:22(48-89) WAGONER                  15.2
REGULAR2 C  US:OK001828    590 36:19 095:35(48-89) CLAREMORE 2 ENE          16.1
REGULAR3 C  US:OK008380    690 36:23 095:03(48-89) SPAVINAW                 21.3
**********************************************************************
* GPS SITE: 6A/406009      N36:37:35 W095:11:02 ELEV:  680, 1969
**********************************************************************
FIRST O. F  US:OK008992    670 36:11 095:54(48-89) TULSA WSO AP             50.3
ACTIVE   C  US:OK009203    740 36:40 095:08(48-89) VINITA 2 N               4.0
REGULAR1 C  US:OK007309    640 36:24 095:18(48-89) PRYOR 6 N                16.9
REGULAR2 C  US:OK008380    690 36:23 095:03(48-89) SPAVINAW                 18.4
REGULAR3 C  US:OK005855    810 36:53 094:53(48-89) MIAMI                    24.3
**********************************************************************
* GPS SITE: 6A/406010      N35:05:00 W094:35:00 ELEV:  482, 1970
**********************************************************************
FIRST O. F  US:AR002574    450 35:20 094:22( 1-89) FORT SMITH WSO AP        21.2
ACTIVE   C  US:OK005693    660 35:09 094:58(48-89) MC CURTAIN 1 SE          22.2
REGULAR1 C  US:OK007246    670 35:03 094:38(48-85) POTEAU                   3.6
REGULAR2 C  US:OK009985    640 34:45 094:38(51-87) ZOE 1 S                  23.2
REGULAR3 C  US:OK007862    530 35:29 094:46(48-89) SALLISAW 2 NE            29.5
**********************************************************************
* GPS SITE: 7A/407024      N35:02:00 W097:25:00 ELEV: 1089, 1959
**********************************************************************
FIRST O. F  US:OK006661   1280 35:24 097:36(48-89) OKLAHOMA CITY WSFO AP     27.4
ACTIVE   C  US:OK007327   1040 34:58 097:26(48-89) PURCELL 5 SW              4.7
REGULAR1 C  US:OK006386   1110 35:11 097:27(48-89) NORMAN 3 S               10.5
REGULAR2 C  US:OK005216    980 34:49 097:39(48-89) LINDSAY 2 W              20.0
REGULAR3 C  US:OK000830   1280 35:07 097:04(52-89) BLANCHARD 2 SSW          20.6
**********************************************************************
* GPS SITE:  2/412002      N45:35:54 W123:00:51 ELEV:  193, 1971
**********************************************************************
FIRST O. F  US:OR006751     20 45:36 122:36(41-89) PORTLAND WSFO AP         20.0
ACTIVE   C  US:OR003908    160 45:31 122:59(48-89) HILLSBORO                5.8
REGULAR1 C  US:OR002997    180 45:32 123:06(28-89) FOREST GROVE             6.1
REGULAR2 C  US:OR007586    360 45:29 123:12(73-85) SCOGGINS DAM 2           12.0
REGULAR3 C  US:OR000595    270 45:27 122:49(72-89) BEAVERTON 2 SSW          14.0
```

```
**********************************************************************
* GPS SITE:  5/415005      N44:37:01 W123:03:37 ELEV:  240, 1985
**********************************************************************
FIRST O. F  US:OR007500    200 44:55 123:01(28-89) SALEM WSO AP            20.8
ACTIVE   C  US:OR001862    230 44:38 123:12(48-89) CORVALLIS ST UNIV        7.0
REGULAR1 C  US:OR008095    430 44:47 122:49(51-89) STAYTON                 16.6
REGULAR2 C  US:OR004606    520 44:37 122:43(73-89) LA COMB 3 NNE           16.9
REGULAR3 C  US:OR001877    590 44:31 123:27(48-89) CORVALLIS WATER BUREA    20.4
**********************************************************************
* GPS SITE:  5/415006      N45:16:51 W118:01:19 ELEV: 2713, 1973
**********************************************************************
FIRST O. F  US:OR000412   3370 44:50 117:49(48-89) BAKER FAA AP           32.5
ACTIVE   C  US:OR004622   2760 45:19 118:05(65-89) LA GRANDE              3.9
REGULAR1 C  US:OR008746   2770 45:13 117:53(28-89) UNION EXP STN           8.1
REGULAR2 C  US:OR001924   2920 45:18 117:48(73-88) COVE                   10.9
REGULAR3 C  US:OR002597   2660 45:34 117:55(48-89) ELGIN                   20.4
**********************************************************************
* GPS SITE:  5/415008      N45:18:17 W118:02:06 ELEV: 2729, 1972
**********************************************************************
FIRST O. F  US:OR000412   3370 44:50 117:49(48-89) BAKER FAA AP           34.3
ACTIVE   C  US:OR004622   2760 45:19 118:05(65-89) LA GRANDE              2.5
REGULAR1 C  US:OR008746   2770 45:13 117:53(28-89) UNION EXP STN           9.6
REGULAR2 C  US:OR001924   2920 45:18 117:48(73-88) COVE                   11.4
REGULAR3 C  US:OR002597   2660 45:34 117:55(48-89) ELGIN                   19.0
**********************************************************************
* GPS SITE:  5/415021      N43:54:06 W123:00:34 ELEV:  559, 1984
**********************************************************************
FIRST O. F  US:OR002709    360 44:07 123:13(39-89) EUGENE WSO AP           18.1
ACTIVE   C  US:OR002374    820 43:47 122:58(48-89) DORENA DAM               8.4
REGULAR1 C  US:OR001897    650 43:47 123:04(48-89) COTTAGE GROVE 1 S        8.7
REGULAR2 C  US:OR005050    710 43:55 122:46(55-89) LOOKOUT POINT DAM       12.1
REGULAR3 C  US:OR001902    830 43:43 123:03(43-89) COTTAGE GROVE DAM       12.9
**********************************************************************
* GPS SITE:  5/415022      N43:57:40 W123:00:16 ELEV:  521, 1984
**********************************************************************
FIRST O. F  US:OR002709    360 44:07 123:13(39-89) EUGENE WSO AP           15.1
ACTIVE   C  US:OR005050    710 43:55 122:46(55-89) LOOKOUT POINT DAM       12.2
REGULAR1 C  US:OR002374    820 43:47 122:58(48-89) DORENA DAM              12.4
REGULAR2 C  US:OR001897    650 43:47 123:04(48-89) COTTAGE GROVE 1 S       12.7
REGULAR3 C  US:OR001902    830 43:43 123:03(43-89) COTTAGE GROVE DAM       17.0
**********************************************************************
* GPS SITE: 6A/416011      N44:17:39 W123:03:21 ELEV:  323, 1961
**********************************************************************
FIRST O. F  US:OR002709    360 44:07 123:13(39-89) EUGENE WSO AP           14.6
ACTIVE   C  US:OR002867    490 44:07 123:18(43-89) FERNRIDGE DAM           17.2
REGULAR1 C  US:OR003047    550 44:25 122:40(69-89) FOSTER DAM              21.0
REGULAR2 C  US:OR004811    680 44:06 122:41(48-89) LEABURG 1 SW            22.8
REGULAR3 C  US:OR001862    230 44:38 123:12(48-89) CORVALLIS ST UNIV       24.5
**********************************************************************
* GPS SITE: 6A/416012      N45:41:30 W121:22:57 ELEV:  102, 1953
**********************************************************************
FIRST O. F  US:OR006751     20 45:36 122:36(41-89) PORTLAND WSFO AP        59.2
ACTIVE   C  US:OR004003    500 45:41 121:31(28-89) HOOD RIVER EXP STN       6.5
REGULAR1 C  US:WA000217   2340 45:49 121:16(59-89) APPLETON                10.3  REJECTED
REGULAR2 C  US:OR008407    100 45:36 121:12(48-89) THE DALLES              10.9
REGULAR3 C  US:WA001968    240 45:37 121:09(48-89) DALLESPORT FAA AP       12.4
**********************************************************************
* GPS SITE: 7A/417018      N44:39:16 W123:03:33 ELEV:  215, 1948
**********************************************************************
FIRST O. F  US:OR007500    200 44:55 123:01(28-89) SALEM WSO AP            18.2
ACTIVE   C  US:OR001862    230 44:38 123:12(48-89) CORVALLIS ST UNIV        7.1
REGULAR1 C  US:OR008095    430 44:47 122:49(51-89) STAYTON                 14.9
REGULAR2 C  US:OR004603    650 44:35 122:45(48-73) LA COMB 1 WNW           16.0
REGULAR3 C  US:OR001877    590 44:31 123:27(48-89) CORVALLIS WATER BUREA    21.5
**********************************************************************
* GPS SITE: 7A/417019      N42:26:34 W122:49:39 ELEV: 1335, 1947
**********************************************************************
FIRST O. F  US:OR005429   1300 42:23 122:53(28-89) MEDFORD WSO AP           5.0
ACTIVE   C  US:OR005424   1460 42:18 122:52(37-89) MEDFORD EXP STATION     10.1
REGULAR1 C  US:OR000304   1750 42:13 122:43(48-89) ASHLAND                 16.6
REGULAR2 C  US:OR007391   1550 42:14 123:02(63-89) RUCH                    17.9
REGULAR3 C  US:OR006907   2480 42:44 122:31(31-89) PROSPECT 2 SW           25.6
```

```
**********************************************************************
* GPS SITE: 7A/417025      N43:31:11 W123:18:44 ELEV:  618, 1963
**********************************************************************
FIRST O. F  US:OR002709    360 44:07 123:13(39-89) EUGENE WSO AP          41.5  REJECTED
ACTIVE   C  US:OR002406    290 43:40 123:19(10-89) DRAIN                  10.1
REGULAR1 C  US:OR002633    120 43:36 123:35(48-89) ELKTON 3 SW            14.7
REGULAR2 C  US:OR001902    830 43:43 123:03(43-89) COTTAGE GROVE DAM      18.9
REGULAR3 C  US:OR004126   1080 43:22 122:58(58-89) IDLEYLD PARK 4 NE      20.3  REJECTED
**********************************************************************
* GPS SITE:  5/417081      N45:55:42 W119:22:22 ELEV:  585, 1988
**********************************************************************
FIRST O. F  US:OR006546   1490 45:41 118:51(28-89) PENDLETON WSO AP       27.7
ACTIVE   C  US:WA005231    360 45:57 119:18(54-89) MC NARY DAM             2.4
REGULAR1 C  US:OR003847    620 45:49 119:17(28-89) HERMISTON 2 S           7.1
REGULAR2 C  US:OR000858    300 45:50 119:42(71-89) BOARDMAN               19.3
REGULAR3 C  US:WA004154    390 46:13 119:06(48-89) KENNEWICK              23.2
**********************************************************************
* GPS SITE:  1/421597      N41:58:00 W077:15:00 ELEV: 1093, 1980
**********************************************************************
FIRST O. F  US:NY000687   1600 42:13 075:59(51-89) BINGHAMTON WB AP       67.3
ACTIVE   C  US:PA009408   1860 41:42 077:16(26-89) WELLSBORO 3 S          18.4
REGULAR1 C  US:PA009490   1880 41:59 077:34(81-88) WESTFIELD 5 S          16.3
REGULAR2 C  US:NY002610    860 42:05 076:49(26-89) ELMIRA                 23.7
REGULAR3 C  US:NY000448   1110 42:20 077:20(53-89) BATH                   25.7
**********************************************************************
* GPS SITE:  5/421598      N40:16:20 W077:02:00 ELEV:  460, 1975
**********************************************************************
FIRST O. F  US:PA003699    340 40:13 076:51(26-89) HARRISBURG FAA AP      10.8
ACTIVE   C  US:PA008073    680 40:03 077:13(48-89) SHIPPENSBURG           16.4
REGULAR1 C  US:PA006297    380 40:29 077:08(48-89) NEWPORT                16.7  REJECTED
REGULAR2 C  US:PA000763    650 40:16 077:22(48-89) BLOSERVILLE 1 N        16.8
REGULAR3 C  US:PA000656    720 39:56 077:15(72-89) BIGLERVILLE            24.3  REJECTED
**********************************************************************
* GPS SITE:  1/421599      N41:25:00 W078:40:00 ELEV: 1500, 1987
**********************************************************************
FIRST O. F  US:PA002260   1810 41:11 078:54(62-89) DU BOIS FAA AP         20.2
ACTIVE   C  US:PA007477   1360 41:25 078:45(26-89) RIDGWAY                4.3
REGULAR1 C  US:PA004432   1750 41:41 078:48(48-89) KANE 1 NNE            19.7
REGULAR2 C  US:PA001534   1620 41:44 078:32(61-89) CLERMONT 8 SW         22.9
REGULAR3 C  US:PA002629   1040 41:30 078:14(69-89) EMPORIUM              23.2
**********************************************************************
* GPS SITE:  1/421605      N41:00:00 W076:52:00 ELEV:  581, 1971
**********************************************************************
FIRST O. F  US:PA003699    340 40:13 076:51(26-89) HARRISBURG FAA AP      54.1
ACTIVE   C  US:PA007931    420 40:46 076:52(26-89) SELINSGROVE 2 S        16.1
REGULAR1 C  US:PA005817    860 41:06 076:34(50-89) MILLVILLE 2 SW         17.1
REGULAR2 C  US:PA009728    520 41:15 076:55(48-89) WILLIAMSPORT WSO AP    17.5
REGULAR3 C  US:PA004853    800 40:54 077:13(48-89) LAURELTON STATE VILLA  19.5
**********************************************************************
* GPS SITE:  4/421606      N40:15:00 W078:25:00 ELEV: 1400, 1977
**********************************************************************
FIRST O. F  US:PA006916   2000 40:55 078:04(48-89) PHILIPSBURG 8 E        49.6  REJECTED
ACTIVE   C  US:PA000130   1480 40:18 078:19(77-89) ALTOONA FAA AP          6.3
REGULAR1 C  US:PA002721   1000 40:01 078:22(43-89) EVERETT                16.3
REGULAR2 C  US:PA000140   1320 40:30 078:28(67-89) ALTOONA 3 W            17.5
REGULAR3 C  US:PA002470   1940 40:28 078:44(64-89) EBENSBURG SEWAGE PLAN  22.4  REJECTED
**********************************************************************
* GPS SITE: 68/421608      N40:00:00 W078:38:00 ELEV: 1000, 1958
**********************************************************************
FIRST O. F  US:WV005707    530 39:24 077:59(26-89) MARTINSBURG FAA AP     54.0
ACTIVE   C  US:PA004481   1280 39:59 078:43(51-89) KEGG                   4.6
REGULAR1 C  US:PA002721   1000 40:01 078:22(43-89) EVERETT                14.2
REGULAR2 C  US:PA008560   1800 40:06 078:57(61-89) STOYSTOWN             18.1
REGULAR3 C  US:MD002280    900 39:39 078:45(48-74) CUMBERLAND             25.0
**********************************************************************
* GPS SITE: 7B/421610      N39:50:40 W076:41:24 ELEV:  840, 1958
**********************************************************************
FIRST O. F  US:PA003699    340 40:13 076:51(26-89) HARRISBURG FAA AP      26.0
ACTIVE   C  US:PA009933    390 39:55 076:45(26-89) YORK 3 SSW PUMP STN     5.6
REGULAR1 C  US:MD006844    600 39:38 076:42(53-86) PARKTON 2 SW           16.2
REGULAR2 C  US:PA003662    600 39:48 076:59(48-89) HANOVER                17.4
REGULAR3 C  US:PA004019    200 39:50 076:20(48-89) HOLTWOOD               17.9  REJECTED
```

```
**********************************************************************
* GPS SITE: 7B/421613      N40:00:00 W075:22:00 ELEV:  200, 1967
**********************************************************************
FIRST O. F  US:PA006889     10 39:53 075:14(48-89) PHILADELPHIA WSCMO AP     10.7
ACTIVE   C  US:PA006927    110 40:07 075:30(48-89) PHOENIXVILLE 1 E         10.7
REGULAR1 C  US:PA006370     70 40:07 075:21(48-87) NORRISTOWN                8.1
REGULAR2 C  US:PA002116    360 40:05 075:33(51-88) DEVAULT 1 W              11.3
REGULAR3 C  US:PA005390     10 39:49 075:25(48-89) MARCUS HOOK              12.9
**********************************************************************
* GPS SITE: 7B/421614      N40:50:00 W078:02:00 ELEV:  920, 1956
**********************************************************************
FIRST O. F  US:PA006916   2000 40:55 078:04(48-89) PHILIPSBURG 8 E          6.0
ACTIVE   C  US:PA008449   1170 40:48 077:52(26-89) STATE COLLEGE            9.0
REGULAR1 C  US:PA005336   1600 40:48 078:24(49-89) MADERA 2 SE             19.3
REGULAR2 C  US:PA004992    460 40:35 077:35(48-89) LEWISTOWN               29.2
REGULAR3 C  US:PA000140   1320 40:30 078:28(67-89) ALTOONA 3 W             32.4
**********************************************************************
* GPS SITE: 7B/421617      N40:03:00 W075:20:00 ELEV:  340, 1972
**********************************************************************
FIRST O. F  US:PA006889     10 39:53 075:14(48-89) PHILADELPHIA WSCMO AP     12.7
ACTIVE   C  US:PA006927    110 40:07 075:30(48-89) PHOENIXVILLE 1 E         9.9
REGULAR1 C  US:PA006370     70 40:07 075:21(48-87) NORRISTOWN               4.7
REGULAR2 C  US:PA002116    360 40:05 075:33(51-88) DEVAULT 1 W             11.7
REGULAR3 C  US:PA003437    240 40:14 075:26(60-89) GRATERFORD 1 E          13.7
**********************************************************************
* GPS SITE: 6B/421618      N39:50:00 W078:50:00 ELEV: 1000, 1964
**********************************************************************
FIRST O. F  US:WV005707    530 39:24 077:59(26-89) MARTINSBURG FAA AP       54.3
ACTIVE   C  US:PA004481   1280 39:59 078:43(51-89) KEGG                    12.1
REGULAR1 C  US:MD003415   2170 39:40 078:56(72-89) FROSTBURG 2             12.7
REGULAR2 C  US:MD002285    970 39:38 078:50(48-77) CUMBERLAND POLICE BRK    13.8
REGULAR3 C  US:MD002282    730 39:38 078:45(74-89) CUMBERLAND 2             14.5
**********************************************************************
* GPS SITE:  3/421623      N41:13:00 W077:00:00 ELEV:  550, 1983
**********************************************************************
FIRST O. F  US:PA006916   2000 40:55 078:04(48-89) PHILIPSBURG 8 E          59.4
ACTIVE   C  US:PA009728    520 41:15 076:55(48-89) WILLIAMSPORT WSO AP      4.9
REGULAR1 C  US:PA005817    860 41:06 076:34(50-89) MILLVILLE 2 SW           24.0
REGULAR2 C  US:PA005109    570 41:07 077:27(48-89) LOCK HAVEN SEW PLT       24.4
REGULAR3 C  US:PA004853    800 40:54 077:13(48-89) LAURELTON STATE VILLA    24.6
**********************************************************************
* GPS SITE:  9/421627      N41:05:00 W078:30:00 ELEV: 1300, 1967
**********************************************************************
FIRST O. F  US:PA002260   1810 41:11 078:54(62-89) DU BOIS FAA AP          22.0
ACTIVE   C  US:PA005336   1600 40:48 078:24(49-89) MADERA 2 SE             20.3
REGULAR1 F  US:PA006916   2000 40:55 078:04(48-89) PHILIPSBURG 8 E          25.4
REGULAR2 C  US:PA007477   1360 41:25 078:45(26-89) RIDGWAY                  26.4
REGULAR3 C  US:PA001004   1210 41:09 079:05(63-89) BROOKVILLE SEWAGE PLA    30.7
**********************************************************************
* GPS SITE:  4/421690      N41:12:00 W076:47:00 ELEV:  560, 1973
**********************************************************************
FIRST O. F  US:PA009705    930 41:20 075:44(64-89) W BARRE SCRANT WSO AP    55.4
ACTIVE   C  US:PA009728    520 41:15 076:55(48-89) WILLIAMSPORT WSO AP      7.7
REGULAR1 C  US:PA005817    860 41:06 076:34(50-89) MILLVILLE 2 SW          13.2
REGULAR2 C  US:PA002343   1990 41:24 076:35(48-87) EAGLES MERE             17.3  REJECTED
REGULAR3 C  US:PA007931    420 40:46 076:52(26-89) SELINSGROVE 2 S         30.2
**********************************************************************
* GPS SITE: 7B/421691      N40:47:24 W080:25:00 ELEV: 1060, 1951
**********************************************************************
FIRST O. F  US:OH009406   1180 41:15 080:40(48-89) YOUNGSTOWN WSO AP       34.3
ACTIVE   C  US:PA005902    690 40:39 080:23(61-89) MONTGOMERY LOCK AND D    9.8
REGULAR1 C  US:PA006233    830 41:01 080:22(26-89) NEW CASTLE 1 N          15.9
REGULAR2 C  US:WV006442    750 40:30 080:36(48-88) NEW CUMBERLAND          22.2
REGULAR3 C  US:PA006993   1150 40:30 080:13(52-89) PITTSBURGH WSCMO2 AP    22.6
**********************************************************************
* GPS SITE:  3/423044      N40:34:33 W075:55:15 ELEV:  553, 1986
**********************************************************************
FIRST O. F  US:PA000106    390 40:39 075:26(48-89) ALLENTOWN WSO AP         26.1
ACTIVE   C  US:PA003632    350 40:33 075:59(79-89) HAMBURG                  3.7
REGULAR1 C  US:PA007578    550 40:33 075:43(83-89) RODALE RESEARCH CENTE    10.9
REGULAR2 C  US:PA007322     40 40:25 075:56(73-89) READING 4 NNW            11.0
REGULAR3 C  US:PA000785    350 40:23 076:02(78-89) BLUE MARSH LAKE          14.6
```

```
**********************************************************************
* GPS SITE:  5/425020      N40:06:00 W075:19:00 ELEV:  130, 1979
**********************************************************************
FIRST O. F  US:PA006889     10 39:53 075:14(48-89) PHILADELPHIA WSCMO AP     15.6
ACTIVE   C  US:PA006927    110 40:07 075:30(48-89) PHOENIXVILLE 1 E          9.8
REGULAR1 C  US:PA006370     70 40:07 075:21(48-87) NORRISTOWN                2.1
REGULAR2 C  US:PA003437    240 40:14 075:26(60-89) GRATERFORD 1 E           11.1
REGULAR3 C  US:PA002116    360 40:05 075:33(51-88) DEVAULT 1 W              12.4
**********************************************************************
* GPS SITE: 7A/427025      N40:18:00 W078:52:00 ELEV: 2140, 1965
**********************************************************************
FIRST O. F  US:PA006916   2000 40:55 078:04(48-89) PHILIPSBURG 8 E          59.8
ACTIVE   C  US:PA004385   1210 40:20 078:55(26-89) JOHNSTOWN                3.5
REGULAR1 C  US:PA002470   1940 40:28 078:44(64-89) EBENSBURG SEWAGE PLAN    13.5
REGULAR2 C  US:PA008560   1800 40:06 078:57(61-89) STOYSTOWN               14.5
REGULAR3 C  US:PA004836   2680 40:10 079:09(70-89) LAUREL MTN SKI LODGE     17.6
**********************************************************************
* GPS SITE: 7A/427037      N41:10:00 W079:02:00 ELEV: 1500, 1968
**********************************************************************
FIRST O. F  US:PA002260   1810 41:11 078:54(62-89) DU BOIS FAA AP            7.0
ACTIVE   C  US:PA001004   1210 41:09 079:05(63-89) BROOKVILLE SEWAGE PLA     2.8
REGULAR1 C  US:PA007229   1280 40:56 079:17(48-89) PUTNEYVILLE 2 SE DAM     20.7
REGULAR2 C  US:PA001485   1110 41:12 079:26(48-89) CLARION 3 SW             21.0
REGULAR3 C  US:PA007477   1360 41:25 078:45(26-89) RIDGWAY                  22.7
**********************************************************************
* GPS SITE:  9/429027      N40:34:33 W075:55:15 ELEV:  535, 1957
**********************************************************************
FIRST O. F  US:PA000106    390 40:39 075:26(48-89) ALLENTOWN WSO AP         26.1
ACTIVE   C  US:PA006689    410 40:48 075:37(26-89) PALMERTON                22.2
REGULAR1 C  US:PA007116    450 40:35 076:02(48-79) PORT CLINTON              5.9
REGULAR2 C  US:PA005956    590 40:09 075:54(51-86) MORGANTOWN               29.4
REGULAR3 C  US:PA003056   1900 41:01 075:54(26-89) FREELAND                 30.5  REJECTED
**********************************************************************
* GPS SITE: 7A/447401      N42:00:00 W071:33:00 ELEV:  340, 1927
**********************************************************************
FIRST O. F  US:RI006698     50 41:44 071:26(48-89) PROVIDENCE WSO AP        19.4
ACTIVE   C  US:MA009316    210 42:08 071:26(57-89) WEST MEDWAY              11.0
REGULAR1 C  US:MA002975    170 42:17 071:25(48-89) FRAMINGHAM               20.7
REGULAR2 C  US:MA009923    990 42:16 071:52(48-89) WORCESTER WSO AP         24.6
REGULAR3 C  US:MA009928    620 42:18 071:49(26-62) WORCESTER                24.8
**********************************************************************
* GPS SITE:  1/451008      N34:46:00 W083:03:00 ELEV:  936, 1970
**********************************************************************
FIRST O. F  US:NC000300   2140 35:26 082:33(64-89) ASHEVILLE WSO AP         54.0
ACTIVE   C  US:SC008887    980 34:45 083:05(48-89) WALHALLA                  2.2
REGULAR1 C  US:SC005278   1630 34:47 083:16(48-89) LONG CREEK               12.4
REGULAR2 C  US:SC001770    820 34:41 082:49(30-89) CLEMSON UNIVERSITY       14.5
REGULAR3 C  US:GA008740   1020 34:35 083:19(30-89) TOCCOA                   19.8
**********************************************************************
* GPS SITE:  1/451011      N32:50:00 W080:02:00 ELEV:   12, 1985
**********************************************************************
FIRST O. F  US:SC001544     40 32:54 080:02(30-89) CHARLESTON WSO AP         4.6
ACTIVE   C  US:SC001549     10 32:47 079:56(48-89) CHARLESTON WSO CI         6.8
REGULAR1 C  US:SC008405     10 32:46 079:51(51-89) SULLIVANS ISLAND         11.6
REGULAR2 C  US:SC008426     40 32:59 080:11(30-89) SUMMERVILLE              13.5
REGULAR3 C  US:SC006893     50 33:15 079:59(48-89) PINOPOLIS DAM            28.9
**********************************************************************
* GPS SITE:  1/451024      N34:01:00 W081:09:00 ELEV:  362, 1984
**********************************************************************
FIRST O. F  US:SC001939    210 33:57 081:07(48-89) COLUMBIA WSFO AP          5.0
ACTIVE   C  US:SC001944    240 33:59 081:01(30-89) COLUMBIA UNIV OF SC       8.0
REGULAR1 C  US:SC006775    450 33:48 081:17(48-89) PELION 4 NW              16.8
REGULAR2 C  US:SC007666    440 34:08 080:52(57-89) SANDHILL EXP STATION     18.1
REGULAR3 C  US:SC005200    710 34:12 081:25(30-89) LITTLE MOUNTAIN          19.8
**********************************************************************
* GPS SITE:  1/451025      N34:15:00 W082:08:00 ELEV:  612, 1980
**********************************************************************
FIRST O. F  US:GA000495    150 33:22 081:58(48-89) AUGUSTA WSO AP           61.7
ACTIVE   C  US:SC003754    620 34:10 082:12(48-89) GREENWOOD 3 SW            6.9
REGULAR1 C  US:SC005017    590 34:30 082:02(30-89) LAURENS                  18.2
REGULAR2 C  US:SC007631    480 33:59 081:46(48-89) SALUDA                   27.9
REGULAR3 C  US:SC001277    530 34:05 082:35(30-89) CALHOUN FALLS            28.2
```

```
**********************************************************************
* GPS SITE:  3/453012      N34:19:00 W081:01:00 ELEV:  392, 1981
**********************************************************************
FIRST O. F  US:SC001939    210 33:57 081:07(48-89) COLUMBIA WSFO AP          26.0
ACTIVE   C  US:SC009327    560 34:22 081:05(30-89) WINNSBORO                  5.1
REGULAR1 C  US:SC007666    440 34:08 080:52(57-89) SANDHILL EXP STATION       15.3
REGULAR2 C  US:SC006688    260 34:16 081:20(48-89) PARR                      18.4
REGULAR3 C  US:SC001310    140 34:15 080:39(48-89) CAMDEN 3 W                21.5
**********************************************************************
* GPS SITE:  5/455017      N34:09:00 W080:58:00 ELEV:  396, 1979
**********************************************************************
FIRST O. F  US:SC001939    210 33:57 081:07(48-89) COLUMBIA WSFO AP          16.3
ACTIVE   C  US:SC007666    440 34:08 080:52(57-89) SANDHILL EXP STATION       5.8
REGULAR1 C  US:SC001944    240 33:59 081:01(30-89) COLUMBIA UNIV OF SC       11.9
REGULAR2 C  US:SC009327    560 34:22 081:05(30-89) WINNSBORO                 16.4
REGULAR3 C  US:SC001310    140 34:15 080:39(48-89) CAMDEN 3 W                19.4
**********************************************************************
* GPS SITE:  5/455034      N34:13:00 W080:02:00 ELEV:  178, 1975
**********************************************************************
FIRST O. F  US:SC003106    150 34:11 079:43(48-89) FLORENCE FAA AIRPORT      18.3
ACTIVE   C  US:SC002260    150 34:18 079:53(48-89) DARLINGTON                10.3
REGULAR1 C  US:SC000736    290 34:14 080:18(48-89) BISHOPVILLE 3 W           15.3
REGULAR2 C  US:SC003111    120 34:18 079:44(48-89) FLORENCE 8 NE             18.1
REGULAR3 C  US:SC008440    180 33:56 080:21(48-89) SUMTER                    26.7
**********************************************************************
* GPS SITE:  5/455035      N34:12:00 W079:52:00 ELEV:  140, 1975
**********************************************************************
FIRST O. F  US:SC003106    150 34:11 079:43(48-89) FLORENCE FAA AIRPORT       8.7
ACTIVE   C  US:SC002260    150 34:18 079:53(48-89) DARLINGTON                 7.0
REGULAR1 C  US:SC003111    120 34:18 079:44(48-89) FLORENCE 8 NE             10.3
REGULAR2 C  US:SC000736    290 34:14 080:18(48-89) BISHOPVILLE 3 W           24.9
REGULAR3 C  US:SC004886     80 33:51 079:44(48-89) LAKE CITY 1 SE            25.3
**********************************************************************
* GPS SITE: 7A/457019      N34:57:00 W082:12:00 ELEV:  863, 1946
**********************************************************************
FIRST O. F  US:NC000300   2140 35:26 082:33(64-89) ASHEVILLE WSO AP          38.8
ACTIVE   C  US:SC003747    970 34:54 082:13(62-89) GRNVL-SPTNBG WSO AP        3.6
REGULAR1 C  US:SC004936   1000 35:11 082:11(30-74) LANDRUM 1 NE              16.1
REGULAR2 C  US:NC008744   1080 35:12 082:14(48-89) TRYON                     17.4
REGULAR3 C  US:SC007113    750 35:07 081:58(48-78) RAINBOW LAKE              17.5
**********************************************************************
* GPS SITE:  3/463009      N44:51:00 W096:54:00 ELEV: 1800, 1975
**********************************************************************
FIRST O. F  US:SD004127   1280 44:23 098:13(48-89) HURON WSO AP              72.4
ACTIVE   C  US:SD001519   1690 44:43 097:02(48-89) CASTLEWOOD                11.3
REGULAR1 C  US:SD001777   1800 44:45 096:41(48-89) CLEAR LAKE                12.7
REGULAR2 C  US:SD008932   1750 44:55 097:09(48-89) WATERTOWN FAA AP          13.1
REGULAR3 C  US:SD005536   1160 45:12 096:38(48-89) MILBANK 2 SSW             27.5
**********************************************************************
* GPS SITE:  3/463010      N45:37:00 W096:55:50 ELEV: 1207, 1983
**********************************************************************
FIRST O. F  US:SD000020   1300 45:27 098:26(32-89) ABERDEEN WSO AP           73.7
ACTIVE   C  US:MN001063    990 45:37 096:50(73-89) BROWNS VALLEY              4.7
REGULAR1 C  US:SD007742   1190 45:40 097:00(48-89) SISSETON 2 E               4.8
REGULAR2 C  US:SD008116   1950 45:18 097:04(56-89) SUMMIT 1 W                22.8
REGULAR3 C  US:SD008980   1830 45:26 097:20(52-89) WAUBAY NATL WLDLF REF     23.3
**********************************************************************
* GPS SITE:  3/463012      N44:20:00 W103:52:00 ELEV: 3640, 1981
**********************************************************************
FIRST O. F  US:SD006937   3160 44:03 103:04(48-89) RAPID CITY WSO AP         44.2
ACTIVE   C  US:SD004834   5350 44:21 103:46(48-89) LEAD                      5.1
REGULAR1 C  US:SD002207   4670 44:23 103:44(48-89) DEADWOOD                  7.4
REGULAR2 C  US:SD007882   3640 44:30 103:52(48-89) SPEARFISH                 11.5
REGULAR3 C  US:SD003069   3300 44:24 103:28(49-89) FORT MEADE                20.3
**********************************************************************
* GPS SITE:  3/463013      N44:31:03 W103:50:00 ELEV: 3609, 1976
**********************************************************************
FIRST O. F  US:SD006937   3160 44:03 103:04(48-89) RAPID CITY WSO AP         49.8
ACTIVE   C  US:SD007882   3640 44:30 103:52(48-89) SPEARFISH                 2.0
REGULAR1 C  US:SD000559   3020 44:40 103:51(48-89) BELLE FOURCHE             10.3
REGULAR2 C  US:SD002207   4670 44:23 103:44(48-89) DEADWOOD                  10.5
REGULAR3 C  US:SD004834   5350 44:21 103:46(48-89) LEAD                      12.0
```

```
**********************************************************************
* GPS SITE:  3/463014      N43:41:00 W097:52:00 ELEV: 1248, 1986
**********************************************************************
FIRST O. F  US:SD004127   1280 44:23 098:13(48-89) HURON WSO AP          51.2
ACTIVE   C  US:SD000128   1350 43:39 097:47(32-89) ALEXANDRIA            5.2
REGULAR1 C  US:SD005671   1270 43:43 098:00( 1-89) MITCHELL 2 NE         6.6
REGULAR2 C  US:SD001032   1420 43:33 097:30(48-89) BRIDGEWATER          21.0
REGULAR3 C  US:SD003029   1230 44:02 098:04( 1-89) FORESTBURG 3 NE       26.0
**********************************************************************
* GPS SITE:  3/463052      N44:22:05 W097:47:25 ELEV: 1461, 1988
**********************************************************************
FIRST O. F  US:SD004127   1280 44:23 098:13(48-89) HURON WSO AP          21.1
ACTIVE   C  US:SD002302   1750 44:23 097:33(48-89) DE SMET              11.9
REGULAR1 C  US:SD003029   1230 44:02 098:04( 1-89) FORESTBURG 3 NE       26.9
REGULAR2 C  US:SD004037   1560 44:01 097:31(48-89) HOWARD               27.8
REGULAR3 C  US:SD001739   1780 44:53 097:44( 1-89) CLARK                 35.7
**********************************************************************
* GPS SITE:  3/463053      N43:57:38 W103:31:11 ELEV: 4849, 1985
**********************************************************************
FIRST O. F  US:SD006937   3160 44:03 103:04(48-89) RAPID CITY WSO AP     23.4
ACTIVE   C  US:SD005870   5180 43:53 103:27(62-89) MT RUSHMORE NATL MEM   6.4
REGULAR1 C  US:SD006427   4720 44:04 103:29(51-89) PACTOLA DAM           7.5
REGULAR2 C  US:SD002087   5480 43:47 103:36(26-89) CUSTER               12.9
REGULAR3 C  US:SD002231   6060 44:00 103:47(81-89) DEERFIELD 3 SE        13.4
**********************************************************************
* GPS SITE:  5/465020      N44:38:46 W103:47:15 ELEV: 3932, 1972
**********************************************************************
FIRST O. F  US:SD006937   3160 44:03 103:04(48-89) RAPID CITY WSO AP     54.5
ACTIVE   C  US:SD000559   3020 44:40 103:51(48-89) BELLE FOURCHE          3.4
REGULAR1 C  US:SD007882   3640 44:30 103:52(48-89) SPEARFISH             10.8
REGULAR2 C  US:SD002207   4670 44:23 103:44(48-89) DEADWOOD              18.3
REGULAR3 C  US:SD006054   2860 44:43 103:25(48-89) NEWELL                18.9
**********************************************************************
* GPS SITE:  5/465025      N43:47:00 W101:58:00 ELEV: 2588, 1974
**********************************************************************
FIRST O. F  US:SD006937   3160 44:03 103:04(48-89) RAPID CITY WSO AP     57.8
ACTIVE   C  US:SD004184   2440 43:45 101:57(49-89) INTERIOR 3 NE          2.4
REGULAR1 C  US:SD001972   2410 43:58 101:52( 9-89) COTTONWOOD 2 E        13.6
REGULAR2 C  US:SD006552   2210 44:03 101:36(48-89) PHILIP 4 E            25.9
REGULAR3 C  US:SD008911   2320 44:04 102:26(49-89) WASTA                 30.4
**********************************************************************
* GPS SITE:  5/465040      N43:37:21 W096:49:07 ELEV: 1513, 1963
**********************************************************************
FIRST O. F  US:SD007667   1420 43:34 096:44(48-89) SIOUX FALLS WSFO AP    5.8
ACTIVE   C  US:SD001392   1350 43:18 096:40(48-89) CANTON 4 WNW          23.5
REGULAR1 C  US:SD005228   1450 43:25 097:15(48-89) MARION                25.9
REGULAR2 C  US:SD009042   1690 44:01 097:00(48-89) WENTWORTH 2 WNW       28.7
REGULAR3 C  US:MN004937   1500 43:40 096:12(50-89) LUVERNE               31.1
**********************************************************************
* GPS SITE: 7A/467049      N43:01:13 W097:23:33 ELEV:  974, 1954
**********************************************************************
FIRST O. F  US:SD007667   1420 43:34 096:44(48-89) SIOUX FALLS WSFO AP    50.2
ACTIVE   C  US:SD009502   1180 42:53 097:21(48-89) YANKTON 2 E            9.7
REGULAR1 C  US:NE003165   1260 42:51 097:29(61-89) GAVINS POINT DAM      12.6
REGULAR2 C  US:SD005481   1320 43:14 097:35(48-89) MENNO                 17.6
REGULAR3 C  US:SD008472   1420 43:00 097:51(48-89) TYNDALL               23.2
**********************************************************************
* GPS SITE: 6B/469106      N45:48:00 W102:11:00 ELEV: 2405, 1959
**********************************************************************
FIRST O. F  US:ND002183   2580 46:47 102:48(38-89) DICKINSON FAA AP      74.0
ACTIVE   C  US:SD004864   2570 45:56 102:10(48-89) LEMMON                9.2
REGULAR1 C  US:SD007567   2230 45:46 102:12(50-77) SHADEHILL DAM         2.4
REGULAR2 C  US:SD000701   2780 45:31 102:28(48-89) BISON                23.9
REGULAR3 C  US:ND004178   2680 45:59 102:39(16-89) HETTINGER             25.8
**********************************************************************
* GPS SITE:  1/469187      N45:00:00 W102:09:00 ELEV: 2360, 1989
**********************************************************************
FIRST O. F  US:SD006937   3160 44:03 103:04(48-89) RAPID CITY WSO AP     79.7
ACTIVE   C  US:SD002852   2550 45:02 102:05(26-89) FAITH 2 W             4.0
REGULAR1 C  US:SD008528   2380 45:15 102:19(57-89) USTA 8 WNW           19.1
REGULAR2 C  US:SD002429   2370 45:03 101:36(22-89) DUPREE               27.1
REGULAR3 C  US:SD005325   2710 44:54 102:43(75-89) MAURINE 10 SW         28.6
```

```
*****************************************************************
* GPS SITE: 6B/469197      N44:04:00 W098:25:00 ELEV: 1450, 1964
*****************************************************************
FIRST O. F  US:SD004127   1280 44:23 098:13(48-89) HURON WSO AP          24.0
ACTIVE   C  US:SD009070   1640 44:05 098:34(51-89) WESSINGTON SPRINGS     7.5
REGULAR1 C  US:SD003029   1230 44:02 098:04( 1-89) FORESTBURG 3 NE       17.6
REGULAR2 C  US:SD009232   1630 43:44 098:43(48-89) WHITE LAKE            27.4
REGULAR3 C  US:SD003217   1740 44:03 099:02(20-89) GANN VALLEY 2 NW       30.7
*****************************************************************
* GPS SITE:  1/471023      N36:11:17 W084:06:06 ELEV: 1088, 1972
*****************************************************************
FIRST O. F  US:TN006750    910 36:01 084:14(48-89) OAK RIDGE ATDL         13.9
ACTIVE   C  US:TN006619   1110 36:13 084:03(48-89) NORRIS                 3.5
REGULAR1 C  US:TN004955    900 35:57 083:55(48-82) KNOXVILLE U OF TENN    19.4
REGULAR2 F  US:TN004950    950 35:48 084:00(10-89) KNOXVILLE WSO AP       27.4
REGULAR3 C  US:TN005158    790 35:48 084:15(62-89) LENOIR CITY            28.1
*****************************************************************
* GPS SITE:  2/471028      N36:22:55 W083:07:19 ELEV: 1136, 1980
*****************************************************************
FIRST O. F  US:TN001094   1530 36:29 082:24(48-89) BRISTOL WSO AP         39.4
ACTIVE   C  US:TN007884   1360 36:25 082:59(27-89) ROGERSVILLE 1 NE       6.6
REGULAR1 C  US:TN006271   1360 36:12 083:17(82-89) MORRISTOWN RADIO WCRK  17.2
REGULAR2 C  US:VA006626   1510 36:45 083:03(31-89) PENNINGTON GAP         24.3
REGULAR3 C  US:TN003679   1320 36:06 082:51(48-89) GREENEVILLE EXP STN    25.0
*****************************************************************
* GPS SITE:  2/471029      N35:03:25 W085:37:29 ELEV:  621, 1982
*****************************************************************
FIRST O. F  US:TN001656    680 35:02 085:12(28-89) CHATTANOOGA WSO AP     26.6
ACTIVE   C  US:AL001099    670 34:59 085:49(48-89) BRIDGEPORT 5 NW        10.9
REGULAR1 C  US:TN006162   1930 35:15 085:50(38-89) MONTEAGLE              14.9
REGULAR2 C  US:TN009800    970 35:11 086:09(85-89) WINCHESTER 2 W         28.2
REGULAR3 C  US:AL007304    620 34:41 086:03(27-89) SCOTTSBORO             35.2
*****************************************************************
* GPS SITE:  2/472001      N36:10:59 W089:13:21 ELEV:  289, 1979
*****************************************************************
FIRST O. F  US:TN004556    430 35:36 088:55(48-89) JACKSON FAA AP         43.8
ACTIVE   C  US:TN006471    370 36:07 089:16(48-89) NEWBERN                 5.2
REGULAR1 C  US:TN002685    340 36:01 089:24(48-89) DYERSBURG FAA AP       15.2
REGULAR2 C  US:TN009219    340 36:25 089:04(30-89) UNION CITY             18.3
REGULAR3 C  US:TN008065    310 36:27 089:19(42-89) SAMBURG WILDLIFE RFG   19.2
*****************************************************************
* GPS SITE: 6B/472008      N35:51:29 W088:44:55 ELEV:  488, 1973
*****************************************************************
FIRST O. F  US:TN004556    430 35:36 088:55(48-89) JACKSON FAA AP         20.2
ACTIVE   C  US:TN006012    470 35:59 088:50(30-89) MILAN                   9.9
REGULAR1 C  US:TN004561    400 35:37 088:50( 1-89) JACKSON EXP STN        17.3
REGULAR2 C  US:TN004417    440 36:00 088:25(62-89) HUNTINGTON WATER PLT   21.0
REGULAR3 C  US:TN005210    540 35:40 088:25(62-89) LEXINGTON              22.8
*****************************************************************
* GPS SITE:  1/473075      N36:04:15 W085:44:06 ELEV: 1020, 1971
*****************************************************************
FIRST O. F  US:TN002197   1880 35:57 085:05(54-89) CROSSVILLE FAA AP      37.4
ACTIVE   C  US:TN008405    890 35:57 085:47(71-89) SMITHVILLE 2 SE         8.8
REGULAR1 C  US:TN002009   1090 36:08 085:30(51-89) COOKEVILLE             13.8
REGULAR2 C  US:TN008522    930 35:56 085:27(48-89) SPARTA                 18.6
REGULAR3 C  US:TN001480    520 36:16 085:58(48-89) CARTHAGE               18.7
*****************************************************************
* GPS SITE:  2/473101      N35:56:30 W086:07:17 ELEV:  770, 1980
*****************************************************************
FIRST O. F  US:TN006402    580 36:07 086:41(48-89) NASHVILLE WSO AP       35.4
ACTIVE   C  US:TN009866    750 35:50 086:05(54-89) WOODBURY 1 WNW          5.8
REGULAR1 C  US:TN006371    550 35:55 086:22(48-89) MURFREESBORO 5 N       14.9
REGULAR2 C  US:TN008405    890 35:57 085:47(71-89) SMITHVILLE 2 SE        17.9
REGULAR3 C  US:TN005882    940 35:41 085:48(27-89) MC MINNVILLE           23.3
*****************************************************************
* GPS SITE:  1/473104      N36:14:28 W083:45:13 ELEV: 1230, 1986
*****************************************************************
FIRST O. F  US:TN006750    910 36:01 084:14(48-89) OAK RIDGE ATDL         31.1
ACTIVE   C  US:TN006619   1110 36:13 084:03(48-89) NORRIS                15.1
REGULAR1 C  US:TN008868   1370 36:28 083:33(66-89) TAZEWELL              18.1
REGULAR2 C  US:KY005389   1180 36:36 083:44(28-89) MIDDLESBORO           21.0
REGULAR3 C  US:TN004613   1170 36:09 083:27(48-89) JEFFERSON CITY 3 ENE   22.1
```

```
**********************************************************************
* GPS SITE: 6B/473108      N36:10:34 W084:05:22 ELEV:  947, 1972
**********************************************************************
FIRST O. F  US:TN006750    910 36:01 084:14(48-89) OAK RIDGE ATDL          20.9
ACTIVE    C  US:TN006619   1110 36:13 084:03(48-89) NORRIS                 6.4
REGULAR1 C  US:TN004955    900 35:57 083:55(48-82) KNOXVILLE U OF TENN     26.3
REGULAR2 C  US:TN006829   1440 36:30 084:32(52-89) ONEIDA                 27.8
REGULAR3 C  US:KY005389   1180 36:36 083:44(28-89) MIDDLESBORO            29.1
**********************************************************************
* GPS SITE: 6B/473109      N35:31:43 W086:55:23 ELEV:  656, 1978
**********************************************************************
FIRST O. F  US:TN006402    580 36:07 086:41(48-89) NASHVILLE WSO AP        44.8
ACTIVE    C  US:TN005187    790 35:27 086:48(28-89) LEWISBURG EXP STN       8.3
REGULAR1 C  US:TN001957    650 35:38 087:05(48-89) COLUMBIA 3 WNW          12.5
REGULAR2 C  US:TN006435    700 35:43 086:58(75-89) NEAPOLIS EXP STN        15.1
REGULAR3 C  US:TN006340    720 35:31 087:14(53-89) MOUNT PLEASANT 2 SW     16.9
**********************************************************************
* GPS SITE: 6B/473110      N35:36:40 W084:34:08 ELEV:  973, 1978
**********************************************************************
FIRST O. F  US:TN006750    910 36:01 084:14(48-89) OAK RIDGE ATDL          31.4
ACTIVE    C  US:TN000284    940 35:26 084:35(62-89) ATHENS                 14.1
REGULAR1 C  US:TN007834    860 35:51 084:42(62-89) ROCKWOOD 2             17.6
REGULAR2 C  US:TN005158    790 35:48 084:15(62-89) LENOIR CITY            19.6
REGULAR3 C  US:TN002360    830 35:29 085:02(56-89) DAYTON                 30.0
**********************************************************************
* GPS SITE: 6A/476015      N35:35:07 W084:31:43 ELEV: 1012, 1974
**********************************************************************
FIRST O. F  US:TN004950    950 35:48 084:00(10-89) KNOXVILLE WSO AP        33.2
ACTIVE    C  US:TN000284    940 35:26 084:35(62-89) ATHENS                 10.9
REGULAR1 C  US:TN007834    860 35:51 084:42(62-89) ROCKWOOD 2             20.7
REGULAR2 C  US:TN005158    790 35:48 084:15(62-89) LENOIR CITY            21.6
REGULAR3 C  US:TN002360    830 35:29 085:02(56-89) DAYTON                 29.3
**********************************************************************
* GPS SITE: 6A/476022      N36:07:22 W085:28:59 ELEV: 1082, 1970
**********************************************************************
FIRST O. F  US:TN002197   1880 35:57 085:05(54-89) CROSSVILLE FAA AP      25.3
ACTIVE    C  US:TN002009   1090 36:08 085:30(51-89) COOKEVILLE             1.2
REGULAR1 C  US:TN008522    930 35:56 085:27(48-89) SPARTA                 13.2
REGULAR2 C  US:TN005332    980 36:23 085:20(61-89) LIVINGSTON RADIO WLIV  19.8
REGULAR3 C  US:TN008405    890 35:57 085:47(71-89) SMITHVILLE 2 SE        20.6
**********************************************************************
* GPS SITE:  2/479024      N35:55:47 W086:14:09 ELEV:  621, 1977
**********************************************************************
FIRST O. F  US:TN006402    580 36:07 086:41(48-89) NASHVILLE WSO AP        30.4
ACTIVE    C  US:TN009866    750 35:50 086:05(54-89) WOODBURY 1 WNW          8.7
REGULAR1 C  US:TN006371    550 35:55 086:22(48-89) MURFREESBORO 5 N        9.3
REGULAR2 C  US:TN005108    540 36:13 086:20(48-89) LEBANON 3 W            22.0
REGULAR3 C  US:TN008405    890 35:57 085:47(71-89) SMITHVILLE 2 SE        23.4
**********************************************************************
* GPS SITE:  2/479025      N35:57:04 W086:05:51 ELEV:  735, 1980
**********************************************************************
FIRST O. F  US:TN006402    580 36:07 086:41(48-89) NASHVILLE WSO AP        35.4
ACTIVE    C  US:TN009866    750 35:50 086:05(54-89) WOODBURY 1 WNW          5.8
REGULAR1 C  US:TN006371    550 35:55 086:22(48-89) MURFREESBORO 5 N        14.9
REGULAR2 C  US:TN008405    890 35:57 085:47(71-89) SMITHVILLE 2 SE        17.9
REGULAR3 C  US:TN005882    940 35:41 085:48(27-89) MC MINNVILLE           23.3
**********************************************************************
* GPS SITE:  1/480001      N30:23:30 W097:43:30 ELEV:  771, 1989
**********************************************************************
FIRST O. F  US:TX000428    600 30:18 097:42(30-89) AUSTIN WSO AP           6.5
ACTIVE    C  US:TX002585   1120 30:13 097:59(84-89) DRIPPING SPRINGS 6 E  19.6
REGULAR1 C  US:TX003507    860 30:41 097:43(81-89) GEORGETOWN LAKE        20.1
REGULAR2 C  US:TX002820    580 30:21 097:22(62-89) ELGIN                  21.6
REGULAR3 C  US:TX008861    570 30:34 097:25(29-89) TAYLOR                 22.0
**********************************************************************
* GPS SITE:  1/481039      N32:23:00 W096:49:00 ELEV:  566, 1982
**********************************************************************
FIRST O. F  US:TX002244    440 32:51 096:51( 1-89) DALLAS FAA AP           32.3
ACTIVE    C  US:TX009522    630 32:25 096:51( 1-89) WAXAHACHIE              3.0
REGULAR1 C  US:TX000518    460 32:16 096:38(65-89) BARDWELL DAM            13.4
REGULAR2 C  US:TX003133    480 32:32 096:40(40-89) FERRIS                 13.6
REGULAR3 C  US:TX002019    430 32:05 096:28( 1-89) CORSICANA              29.1
```

```
**********************************************************************
* GPS SITE: 6A/481046      N35:12:00 W101:20:00 ELEV: 3432, 1971
**********************************************************************
FIRST O. F  US:TX000211   3590 35:14 101:42(48-89) AMARILLO WSO AP          20.8
ACTIVE   C  US:TX001778   3400 35:07 101:22( 4-89) CLAUDE                   6.1
REGULAR1 C  US:TX006785   3440 35:21 101:23(11-89) PANHANDLE               10.7
REGULAR2 F  US:TX001761   2700 34:56 100:53( 4-89) CLARENDON               31.4
REGULAR3 C  US:TX000958   3140 35:39 101:27(49-89) BORGER                  31.8
**********************************************************************
* GPS SITE:  1/481047      N35:12:00 W101:10:00 ELEV: 3301, 1971
**********************************************************************
FIRST O. F  US:TX000211   3590 35:14 101:42(48-89) AMARILLO WSO AP          30.2
ACTIVE   C  US:TX001778   3400 35:07 101:22( 4-89) CLAUDE                  12.7
REGULAR1 C  US:TX006785   3440 35:21 101:23(11-89) PANHANDLE               16.0
REGULAR2 C  US:TX001761   2700 34:56 100:53( 4-89) CLARENDON               24.4
REGULAR3 C  US:TX006776   3150 35:34 100:58(64-89) PAMPA 2                  27.7
**********************************************************************
* GPS SITE:  1/481048      N31:52:22 W102:24:38 ELEV: 2942, 1974
**********************************************************************
FIRST O. F  US:TX005890   2860 31:57 102:11(48-89) MIDLAND/ODESSA WSO AP    14.4
ACTIVE   C  US:TX006932   2940 31:44 102:35(55-89) PENWELL                  14.0
REGULAR1 C  US:TX005891   2740 32:01 102:01(47-89) MIDLAND 4 ENE            25.2
REGULAR2 C  US:TX000248   3170 32:19 102:32(14-89) ANDREWS                 31.5
REGULAR3 C  US:TX002082   2630 31:23 102:20(28-89) CRANE                    34.1
**********************************************************************
* GPS SITE:  2/481049      N31:39:31 W094:40:40 ELEV:  400, 1984
**********************************************************************
FIRST O. F  US:LA008440    250 32:28 093:49(30-89) SHREVEPORT WSO AP        75.2
ACTIVE   C  US:TX006177    440 31:37 094:38(48-89) NACOGDOCHES               3.9
REGULAR1 C  US:TX007841    720 31:48 095:09(42-89) RUSK                     29.4
REGULAR2 C  US:TX005424    280 31:14 094:45( 6-89) LUFKIN FAA AP            29.7
REGULAR3 C  US:TX001578    330 31:48 094:10(22-89) CENTER                   31.6
**********************************************************************
* GPS SITE:  1/481050      N30:21:00 W095:55:00 ELEV:  378, 1985
**********************************************************************
FIRST O. F  US:TX001889    310 30:35 096:21(51-89) COLLEGE STATION FAA A    30.4
ACTIVE   C  US:TX009491    220 30:20 096:09(15-89) WASHINGTON STATE PARK    14.0
REGULAR1 C  US:TX001956    240 30:20 095:29(48-89) CONROE                   25.9
REGULAR2 C  US:TX001048    350 30:09 096:24( 2-89) BRENHAM                  32.0
REGULAR3 C  US:TX004382    490 30:43 095:33(46-89) HUNTSVILLE               33.4
**********************************************************************
* GPS SITE:  1/481056      N36:11:30 W100:42:15 ELEV: 2873, 1970
**********************************************************************
FIRST O. F  US:OK003407   2190 36:18 099:46(48-89) GAGE FAA AP              52.8
ACTIVE   C  US:TX006950   2930 36:28 100:47( 7-89) PERRYTON 5 NNE           19.5
REGULAR1 C  US:TX005247   2450 36:14 100:16(48-89) LIPSCOMB                 24.6
REGULAR2 C  US:TX001412   2340 35:55 100:22( 6-89) CANADIAN 1 ENE           26.8
REGULAR3 C  US:TX008523   3100 36:11 101:11(20-89) SPEARMAN                 26.8
**********************************************************************
* GPS SITE:  1/481060      N28:30:00 W097:03:00 ELEV:   78, 1986
**********************************************************************
FIRST O. F  US:TX009364    100 28:51 096:55(61-89) VICTORIA WSO AP          25.5
ACTIVE   C  US:TX007533     50 28:24 097:17(85-89) REFUGIO 7 N              15.8
REGULAR1 C  US:TX000305     20 28:16 096:48(71-89) ARANSAS WL REFUGE        22.2
REGULAR2 C  US:TX003618    140 28:40 097:24(12-89) GOLIAD                   24.2
REGULAR3 C  US:TX007182     20 28:37 096:38( 1-88) PORT LAVACA 2            26.6
**********************************************************************
* GPS SITE:  1/481065      N35:12:00 W102:24:00 ELEV: 4026, 1970
**********************************************************************
FIRST O. F  US:TX000211   3590 35:14 101:42(48-89) AMARILLO WSO AP          39.6
ACTIVE   C  US:TX004098   3820 34:49 102:24( 5-89) HEREFORD                 26.5
REGULAR1 C  US:TX009330   4010 35:15 102:25(23-83) VEGA                      3.6
REGULAR2 C  US:TX001430   3590 34:59 101:56(23-89) CANYON                   30.4
REGULAR3 C  US:TX001649   3790 35:41 102:20(67-83) CHANNING 2               33.6
**********************************************************************
* GPS SITE:  1/481068      N33:30:18 W095:35:22 ELEV:  445, 1987
**********************************************************************
FIRST O. F  US:TX002244    440 32:51 096:51( 1-89) DALLAS FAA AP            85.9
ACTIVE   C  US:TX006794    540 33:40 095:34( 1-89) PARIS                    11.2
REGULAR1 C  US:TX008743    500 33:09 095:38( 1-89) SULPHUR SPRINGS          24.6
REGULAR2 C  US:TX006119    480 33:11 095:14(66-89) MOUNT VERNON             30.3
REGULAR3 C  US:TX001772    440 33:38 095:02( 3-89) CLARKSVILLE 2 NE         33.3
```

```
**********************************************************************
* GPS SITE:  1/481069      N32:37:00 W096:25:00 ELEV:  425, 1977
**********************************************************************
FIRST O. F  US:TX002244    440 32:51 096:51( 1-89) DALLAS FAA AP          29.9
ACTIVE   C  US:TX004705    420 32:33 096:16( 1-89) KAUFMAN 3 SE           9.9
REGULAR1 C  US:TX003133    480 32:32 096:40(40-89) FERRIS                15.7
REGULAR2 C  US:TX009800    520 32:42 096:01( 5-89) WILLS POINT           24.0
REGULAR3 C  US:TX000518    460 32:16 096:38(65-89) BARDWELL DAM          27.3
**********************************************************************
* GPS SITE:  1/481070      N32:36:00 W096:23:00 ELEV:  429, 1977
**********************************************************************
FIRST O. F  US:TX002244    440 32:51 096:51( 1-89) DALLAS FAA AP          32.2
ACTIVE   C  US:TX004705    420 32:33 096:16( 1-89) KAUFMAN 3 SE           7.6
REGULAR1 C  US:TX003133    480 32:32 096:40(40-89) FERRIS                17.1
REGULAR2 C  US:TX009800    520 32:42 096:01( 5-89) WILLS POINT           22.4
REGULAR3 C  US:TX000518    460 32:16 096:38(65-89) BARDWELL DAM          27.3
**********************************************************************
* GPS SITE:  1/481076      N33:10:03 W102:16:51 ELEV: 3018, 1977
**********************************************************************
FIRST O. F  US:TX005411   3250 33:39 101:49(11-89) LUBBOCK WSFO AP       42.8
ACTIVE   C  US:TX001128   3300 33:11 102:16(53-89) BROWNFIELD 2          1.4
REGULAR1 C  US:TX005183   3550 33:34 102:23(26-89) LEVELLAND            28.2
REGULAR2 C  US:TX007074   3680 33:11 102:50(25-89) PLAINS               32.0
REGULAR3 C  US:TX005013   2970 32:42 101:56(10-89) LAMESA 1 SSE          38.1
**********************************************************************
* GPS SITE:  1/481077      N34:32:00 W100:26:00 ELEV: 1835, 1982
**********************************************************************
FIRST O. F  US:TX000211   3590 35:14 101:42(48-89) AMARILLO WSO AP       86.6
ACTIVE   C  US:TX001698   1950 34:26 100:17(48-89) CHILDRESS FAA AP     11.0
REGULAR1 C  US:TX005821   2090 34:44 100:32( 5-89) MEMPHIS              14.9
REGULAR2 C  US:TX009565   2040 34:50 100:13(12-89) WELLINGTON           24.1
REGULAR3 C  US:TX009191   2390 34:23 100:56(47-89) TURKEY 2 WSW         30.3
**********************************************************************
* GPS SITE:  1/481087      N32:22:00 W095:20:00 ELEV:  545, 1973
**********************************************************************
FIRST O. F  US:LA008440    250 32:28 093:49(30-89) SHREVEPORT WSO AP      88.8
ACTIVE   C  US:TX005956    390 32:43 095:22(66-89) MINEOLA 8 ENE          24.2
REGULAR1 C  US:TX009214    490 32:24 095:16(55-84) TYLER 5 NE             4.5
REGULAR2 C  US:TX004525    570 31:58 095:16(53-89) JACKSONVILLE           27.9
REGULAR3 C  US:TX000404    460 32:10 095:50( 3-89) ATHENS 3 SSE           32.3
**********************************************************************
* GPS SITE:  1/481092      N29:21:00 W099:03:00 ELEV:  828, 1983
**********************************************************************
FIRST O. F  US:TX007945    790 29:32 098:28(46-89) SAN ANTONIO WSFO       37.4
ACTIVE   C  US:TX004256    920 29:21 099:10(75-89) HONDO WSMO AP          7.0
REGULAR1 C  US:TX005454    720 29:14 098:50(76-89) LYTLE 3 W              15.4
REGULAR2 C  US:TX006879    640 28:53 099:05( 2-89) PEARSALL               32.3
REGULAR3 C  US:TX005742   1630 29:48 099:15(66-89) MEDINA                33.3
**********************************************************************
* GPS SITE: 6B/481093      N28:46:00 W098:18:00 ELEV:  249, 1980
**********************************************************************
FIRST O. F  US:TX007945    790 29:32 098:28(46-89) SAN ANTONIO WSFO       53.9
ACTIVE   C  US:TX001720    230 28:28 098:16(83-89) CHOKE CANYON DAM       20.8
REGULAR1 C  US:TX004696    420 28:53 097:55(19-89) KARNES CITY            24.6
REGULAR2 C  US:TX007215    480 29:02 098:35(41-89) POTEET                 25.2
REGULAR3 C  US:TX003201    400 29:08 098:10(16-89) FLORESVILLE            26.6
**********************************************************************
* GPS SITE:  1/481094      N29:35:00 W098:42:00 ELEV: 1109, 1976
**********************************************************************
FIRST O. F  US:TX007945    790 29:32 098:28(46-89) SAN ANTONIO WSFO       14.5
ACTIVE   C  US:TX000902   1420 29:48 098:43( 1-89) BOERNE                15.0
REGULAR1 C  US:TX005454    720 29:14 098:50(76-89) LYTLE 3 W              25.5
REGULAR2 C  US:TX004256    920 29:21 099:10(75-89) HONDO WSMO AP          32.4
REGULAR3 C  US:TX001429   1000 29:52 098:12(61-89) CANYON DAM            35.8
**********************************************************************
* GPS SITE:  1/481096      N29:21:00 W098:49:00 ELEV:  774, 1981
**********************************************************************
FIRST O. F  US:TX007945    790 29:32 098:28(46-89) SAN ANTONIO WSFO       24.6
ACTIVE   C  US:TX005454    720 29:14 098:50(76-89) LYTLE 3 W              8.1
REGULAR1 C  US:TX004256    920 29:21 099:10(75-89) HONDO WSMO AP          21.1
REGULAR2 C  US:TX007215    480 29:02 098:35(41-89) POTEET                 26.0
REGULAR3 C  US:TX001663    440 28:56 098:45(62-89) CHARLOTTE 5 NNW        29.1
```

```
**********************************************************************
* GPS SITE:  1/481109      N30:45:00 W095:31:00 ELEV:  340, 1984
**********************************************************************
FIRST O. F  US:TX001889    310 30:35 096:21(51-89) COLLEGE STATION FAA A     50.9
ACTIVE   C  US:TX004382    490 30:43 095:33(46-89) HUNTSVILLE                 3.0
REGULAR1 C  US:TX001870    360 30:32 095:09(54-89) COLDSPRING 5 SSW          26.5
REGULAR2 C  US:TX005477    250 30:57 095:55(18-89) MADISONVILLE              27.5
REGULAR3 C  US:TX001956    240 30:20 095:29(48-89) CONROE                    28.8
**********************************************************************
* GPS SITE:  1/481111      N33:32:18 W101:48:52 ELEV: 3158, 1972
**********************************************************************
FIRST O. F  US:TX005411   3250 33:39 101:49(11-89) LUBBOCK WSFO AP           7.7
ACTIVE   C  US:TX002121   3010 33:30 101:15( 1-89) CROSBYTON               32.7
REGULAR1 C  US:TX005183   3550 33:34 102:23(26-89) LEVELLAND               32.9
REGULAR2 C  US:TX001128   3300 33:11 102:16(53-89) BROWNFIELD 2            35.8
REGULAR3 C  US:TX007206   2550 33:12 101:20(10-89) POST 3 ENE              36.3
**********************************************************************
* GPS SITE:  1/481113      N31:57:00 W094:42:00 ELEV:  445, 1986
**********************************************************************
FIRST O. F  US:LA008440    250 32:28 093:49(30-89) SHREVEPORT WSO AP         62.8
ACTIVE   C  US:TX004081    420 32:10 094:48( 8-89) HENDERSON                 16.1
REGULAR1 C  US:TX006177    440 31:37 094:38(48-89) NACOGDOCHES               23.3
REGULAR2 C  US:TX001500    340 32:09 094:22( 8-89) CARTHAGE                  23.9
REGULAR3 C  US:TX005348    410 32:21 094:39(75-89) LONGVIEW WSMO             27.8
**********************************************************************
* GPS SITE: 6B/481116      N31:53:30 W094:40:45 ELEV:  406, 1987
**********************************************************************
FIRST O. F  US:LA008440    250 32:28 093:49(30-89) SHREVEPORT WSO AP         64.2
ACTIVE   C  US:TX006177    440 31:37 094:38(48-89) NACOGDOCHES               19.2
REGULAR1 C  US:TX004081    420 32:10 094:48( 8-89) HENDERSON                 20.3
REGULAR2 C  US:TX001500    340 32:09 094:22( 8-89) CARTHAGE                  25.6
REGULAR3 C  US:TX007841    720 31:48 095:09(42-89) RUSK                      28.4
**********************************************************************
* GPS SITE: 6B/481119      N32:00:00 W095:00:00 ELEV:  332, 1975
**********************************************************************
FIRST O. F  US:LA008440    250 32:28 093:49(30-89) SHREVEPORT WSO AP         76.4
ACTIVE   C  US:TX004525    570 31:58 095:16(53-89) JACKSONVILLE              15.8
REGULAR1 C  US:TX004081    420 32:10 094:48( 8-89) HENDERSON                 16.4
REGULAR2 C  US:TX007841    720 31:48 095:09(42-89) RUSK                      16.4
REGULAR3 C  US:TX009214    490 32:24 095:16(55-84) TYLER 5 NE                31.7
**********************************************************************
* GPS SITE:  1/481122      N29:14:00 W098:15:00 ELEV:  457, 1974
**********************************************************************
FIRST O. F  US:TX007945    790 29:32 098:28(46-89) SAN ANTONIO WSFO          24.5
ACTIVE   C  US:TX003201    400 29:08 098:10(16-89) FLORESVILLE                8.5
REGULAR1 C  US:TX007215    480 29:02 098:35(41-89) POTEET                    24.4
REGULAR2 C  US:TX006368    390 29:16 097:46(21-89) NIXON                     29.3
REGULAR3 C  US:TX004696    420 28:53 097:55(19-89) KARNES CITY               31.5
**********************************************************************
* GPS SITE:  1/481123      N30:14:00 W099:26:00 ELEV: 2217, 1976
**********************************************************************
FIRST O. F  US:TX007945    790 29:32 098:28(46-89) SAN ANTONIO WSFO          75.5
ACTIVE   C  US:TX004782   1780 30:04 099:07(74-89) KERRVILLE 3 NNE          22.2
REGULAR1 C  US:TX004670   1730 30:29 099:47( 1-89) JUNCTION                 27.1
REGULAR2 C  US:TX007232   2050 29:55 099:46(55-89) PRADE RANCH              29.6
REGULAR3 C  US:TX005742   1630 29:48 099:15(66-89) MEDINA                   31.9
**********************************************************************
* GPS SITE:  1/481130      N29:33:00 W097:56:00 ELEV:  519, 1972
**********************************************************************
FIRST O. F  US:TX007945    790 29:32 098:28(46-89) SAN ANTONIO WSFO          32.1
ACTIVE   C  US:TX006276    710 29:44 098:07( 1-89) NEW BRAUNFELS             16.8
REGULAR1 C  US:TX005429    400 29:40 097:39( 1-89) LULING                    18.8
REGULAR2 C  US:TX007983    610 29:51 097:57( 1-89) SAN MARCOS                20.7
REGULAR3 C  US:TX006368    390 29:16 097:46(21-89) NIXON                     22.0
**********************************************************************
* GPS SITE:  1/481168      N32:40:00 W095:27:00 ELEV:  418, 1985
**********************************************************************
FIRST O. F  US:TX002244    440 32:51 096:51( 1-89) DALLAS FAA AP             82.4
ACTIVE   C  US:TX005956    390 32:43 095:22(66-89) MINEOLA 8 ENE              6.0
REGULAR1 C  US:TX002902    460 32:52 095:44(44-89) EMORY                     21.5
REGULAR2 C  US:TX009207    590 32:20 095:16(84-89) TYLER                     25.4
REGULAR3 C  US:TX003546    390 32:44 094:59(29-89) GILMER 2 W                27.6
```

```
**********************************************************************
* GPS SITE:  1/481169      N32:11:00 W094:48:00 ELEV:  430, 1972
**********************************************************************
FIRST O. F  US:LA008440    250 32:28 093:49(30-89) SHREVEPORT WSO AP        60.7
ACTIVE   C  US:TX004081    420 32:10 094:48( 8-89) HENDERSON                1.2
REGULAR1 C  US:TX005348    410 32:21 094:39(75-89) LONGVIEW WSMO           14.5
REGULAR2 C  US:TX001500    340 32:09 094:22( 8-89) CARTHAGE                25.5
REGULAR3 C  US:TX009214    490 32:24 095:16(55-84) TYLER 5 NE              31.1
**********************************************************************
* GPS SITE:  1/481174      N27:47:00 W097:52:00 ELEV:  109, 1970
**********************************************************************
FIRST O. F  US:TX002015     40 27:46 097:30(48-89) CORPUS CHRISTI WSO AP    22.5
ACTIVE   C  US:TX007677     90 27:47 097:40(22-89) ROBSTOWN                 12.2
REGULAR1 C  US:TX000144    200 27:44 098:04(11-89) ALICE                    12.7
REGULAR2 C  US:TX004810     70 27:33 097:53( 2-89) KINGSVILLE               16.1
REGULAR3 C  US:TX005661    140 28:02 097:52(64-89) MATHIS 4 SSW             17.3
**********************************************************************
* GPS SITE:  1/481178      N30:34:00 W096:40:00 ELEV:  425, 1989
**********************************************************************
FIRST O. F  US:TX001889    310 30:35 096:21(51-89) COLLEGE STATION FAA A    18.9
ACTIVE   C  US:TX008446    260 30:20 096:32(63-89) SOMERVILLE DAM           18.0
REGULAR1 C  US:TX005193    470 30:25 097:01(48-89) LEXINGTON                23.3
REGULAR2 C  US:TX001348    390 30:51 096:59( 8-89) CAMERON                  27.2
REGULAR3 C  US:TX001048    350 30:09 096:24( 2-89) BRENHAM                  32.9
**********************************************************************
* GPS SITE:  1/481181      N28:35:00 W098:12:00 ELEV:  195, 1979
**********************************************************************
FIRST O. F  US:TX007945    790 29:32 098:28(46-89) SAN ANTONIO WSFO         67.6
ACTIVE   C  US:TX001720    230 28:28 098:16(83-89) CHOKE CANYON DAM         9.0
REGULAR1 C  US:TX009031    350 28:25 098:32( 3-89) TILDEN                   23.3
REGULAR2 C  US:TX004696    420 28:53 097:55(19-89) KARNES CITY              26.9
REGULAR3 C  US:TX000639    260 28:27 097:42( 1-89) BEEVILLE 5 NE            31.8
**********************************************************************
* GPS SITE:  1/481183      N33:19:45 W101:31:18 ELEV: 2994, 1975
**********************************************************************
FIRST O. F  US:TX005411   3250 33:39 101:49(11-89) LUBBOCK WSFO AP          27.9
ACTIVE   C  US:TX007206   2550 33:12 101:20(10-89) POST 3 ENE              14.1
REGULAR1 C  US:TX002121   3010 33:30 101:15( 1-89) CROSBYTON               19.6
REGULAR2 C  US:TX008818   3120 33:10 101:09(13-89) TAHOKA                  24.3
REGULAR3 C  US:TX003411   2530 32:46 101:27(12-89) GAIL                     39.1
**********************************************************************
* GPS SITE:  2/482108      N29:21:00 W094:55:00 ELEV:    8, 1985
**********************************************************************
FIRST O. F  US:TX003430     10 29:18 094:48( 4-89) GALVESTON WSO CI          7.8
ACTIVE   C  US:TX000204     40 29:25 095:13( 1-89) ALVIN (HOU AREA WSO)      18.7
REGULAR1 F  US:TX004307     50 29:39 095:17(41-89) HOUSTON FAA AP            30.3
REGULAR2 C  US:TX000235     20 29:47 094:40( 9-89) ANAHUAC                   33.5
REGULAR3 C  US:TX000586     30 29:50 095:00(46-89) BAYTOWN                   33.8
**********************************************************************
* GPS SITE:  2/482133      N31:04:00 W097:20:00 ELEV:  599, 1986
**********************************************************************
FIRST O. F  US:TX009419    500 31:37 097:13(30-89) WACO WSO AP              38.6
ACTIVE   C  US:TX008910    700 31:05 097:22( 1-89) TEMPLE                    2.3
REGULAR1 C  US:TX000665    660 31:06 097:29(51-89) BELTON DAM                9.2
REGULAR2 C  US:TX008646    710 31:02 097:32(63-89) STILLHOUSE HOLLOW DAM    12.1
REGULAR3 C  US:TX004792    910 31:04 097:44(78-89) KILLEEN 3 S              23.7
**********************************************************************
* GPS SITE:  2/482172      N32:22:24 W100:58:47 ELEV: 2134, 1982
**********************************************************************
FIRST O. F  US:TX000016   1760 32:26 099:41(48-89) ABILENE WSO AP          75.8
ACTIVE   C  US:TX004974   2100 32:20 100:55(54-89) LAKE COLORADO CITY       4.6
REGULAR1 C  US:TX008433   2340 32:43 100:55(11-89) SNYDER                   24.0
REGULAR2 C  US:TX007743   2380 32:27 100:32(35-89) ROSCOE                   26.6
REGULAR3 C  US:TX000786   2500 32:15 101:27(48-89) BIG SPRING               28.8
**********************************************************************
* GPS SITE:  2/482176      N34:09:57 W101:42:29 ELEV: 3369, 1971
**********************************************************************
FIRST O. F  US:TX005411   3250 33:39 101:49(11-89) LUBBOCK WSFO AP          36.2
ACTIVE   C  US:TX007079   3370 34:11 101:42( 8-89) PLAINVIEW                1.3
REGULAR1 C  US:TX006644   3610 34:11 102:08(28-89) OLTON                    24.4
REGULAR2 C  US:TX003214   3220 33:58 101:20(11-89) FLOYDADA                 25.5
REGULAR3 C  US:TX009175   3480 34:32 101:46(47-89) TULIA                    25.6
```

```
**********************************************************************
* GPS SITE:  3/483003      N32:52:00 W096:56:00 ELEV:  431, 1975
**********************************************************************
FIRST O. F  US:TX002244    440 32:51 096:51( 1-89) DALLAS FAA AP            5.0
ACTIVE   F  US:TX002242    550 32:54 097:02(74-89) DAL-FTW REG WSCMO AP     6.2
REGULAR1 C  US:TX003691    590 32:58 097:03( 1-89) GRAPEVINE DAM            9.7
REGULAR2 C  US:TX002404    630 33:12 097:06(13-89) DENTON 2 SE             25.0
REGULAR3 C  US:TX005766    600 33:10 096:37( 3-89) MC KINNEY 3 S           27.7
**********************************************************************
* GPS SITE:  3/483010      N29:47:30 W094:54:30 ELEV:   26, 1984
**********************************************************************
FIRST O. F  US:TX004307     50 29:39 095:17(41-89) HOUSTON FAA AP          24.6
ACTIVE   C  US:TX000586     30 29:50 095:00(46-89) BAYTOWN                  6.2
REGULAR1 C  US:TX000235     20 29:47 094:40( 9-89) ANAHUAC                 14.5
REGULAR2 C  US:TX004328     60 29:55 095:09(54-89) HOUSTON SAN JACINTO D    16.9
REGULAR3 C  US:TX005196     40 30:03 094:48( 4-89) LIBERTY                 19.0
**********************************************************************
* GPS SITE:  2/483559      N30:42:00 W095:39:00 ELEV:  408, 1970
**********************************************************************
FIRST O. F  US:TX001889    310 30:35 096:21(51-89) COLLEGE STATION FAA A   42.4
ACTIVE   C  US:TX004382    490 30:43 095:33(46-89) HUNTSVILLE               6.1
REGULAR1 C  US:TX005477    250 30:57 095:55(18-89) MADISONVILLE            23.4
REGULAR2 C  US:TX001956    240 30:20 095:29(48-89) CONROE                  27.2
REGULAR3 C  US:TX001870    360 30:32 095:09(54-89) COLDSPRING 5 SSW        31.9
**********************************************************************
* GPS SITE:  9/483569      N33:07:20 W095:45:21 ELEV:  523, 1960
**********************************************************************
FIRST O. F  US:TX002244    440 32:51 096:51( 1-89) DALLAS FAA AP           66.2
ACTIVE   C  US:TX008743    500 33:09 095:38( 1-89) SULPHUR SPRINGS          7.4
REGULAR1 C  US:TX002902    460 32:52 095:44(44-89) EMORY                   17.7
REGULAR2 C  US:TX003734    610 33:12 096:13( 1-89) GREENVILLE 7 NW         27.2
REGULAR3 C  US:TX006119    480 33:11 095:14(66-89) MOUNT VERNON            30.6
**********************************************************************
* GPS SITE:  1/483579      N32:37:00 W095:52:00 ELEV:   49, 1987
**********************************************************************
FIRST O. F  US:TX002244    440 32:51 096:51( 1-89) DALLAS FAA AP           59.4
ACTIVE   C  US:TX009800    520 32:42 096:01( 5-89) WILLS POINT             10.5
REGULAR1 C  US:TX004483    450 32:49 095:55(75-89) IRON BRIDGE DAM         14.1
REGULAR2 C  US:TX002902    460 32:52 095:44(44-89) EMORY                   18.9
REGULAR3 C  US:TX004705    420 32:33 096:16( 1-89) KAUFMAN 3 SE            23.8
**********************************************************************
* GPS SITE:  3/483589      N34:08:24 W099:12:10 ELEV: 1230, 1961
**********************************************************************
FIRST O. F  US:TX009729    990 33:58 098:29( 1-89) WICHITA FALLS WSO AP    42.9
ACTIVE   C  US:TX009346   1200 34:05 099:18( 4-89) VERNON 4 S               6.8
REGULAR1 C  US:OK008879   1360 34:26 099:08(38-79) TIPTON 4 S              20.6
REGULAR2 C  US:OK003353   1300 34:24 099:01( 5-89) FREDERICK              20.9
REGULAR3 C  US:TX004982   1170 33:45 099:09(62-89) LAKE KEMP              27.1
**********************************************************************
* GPS SITE:  1/483609      N33:37:20 W100:46:00 ELEV: 2289, 1974
**********************************************************************
FIRST O. F  US:TX005411   3250 33:39 101:49(11-89) LUBBOCK WSFO AP         60.5
ACTIVE   C  US:TX003828   1740 33:37 100:19(47-89) GUTHRIE                25.9
REGULAR1 C  US:TX002448   2580 33:37 100:50(64-84) DICKENS                3.9
REGULAR2 C  US:TX005658   2290 34:01 100:50(47-89) MATADOR               27.5
REGULAR3 C  US:TX004570   2010 33:15 100:34(10-89) JAYTON                 28.2
**********************************************************************
* GPS SITE: 7A/483629      N29:43:17 W096:25:35 ELEV:  260, 1965
**********************************************************************
FIRST O. F  US:TX001889    310 30:35 096:21(51-89) COLLEGE STATION FAA A   59.7
ACTIVE   C  US:TX001911    200 29:43 096:32(15-89) COLUMBUS                 6.4
REGULAR1 C  US:TX008160    190 29:47 096:08(10-89) SEALY                   18.1
REGULAR2 C  US:TX001048    350 30:09 096:24( 2-89) BRENHAM                 29.6
REGULAR3 C  US:TX004903    360 29:55 096:52(10-89) LA GRANGE               29.7
**********************************************************************
* GPS SITE:  2/483669      N31:19:40 W094:47:10 ELEV:  315, 1983
**********************************************************************
FIRST O. F  US:LA008440    250 32:28 093:49(30-89) SHREVEPORT WSO AP       97.1
ACTIVE   C  US:TX005424    280 31:14 094:45( 6-89) LUFKIN FAA AP            6.9
REGULAR1 C  US:TX006177    440 31:37 094:38(48-89) NACOGDOCHES             21.9
REGULAR2 C  US:TX003778    350 31:04 095:08(23-89) GROVETON                27.3
REGULAR3 C  US:TX007841    720 31:48 095:09(42-89) RUSK                    39.0
```

```
*********************************************************************
* GPS SITE:  2/483679      N31:22:19 W094:30:20 ELEV:  195, 1988
*********************************************************************
FIRST O. F  US:LA008440    250 32:28 093:49(30-89) SHREVEPORT WSO AP        85.7
ACTIVE   C  US:TX005424    280 31:14 094:45( 6-89) LUFKIN FAA AP            17.3
REGULAR1 C  US:TX006177    440 31:37 094:38(48-89) NACOGDOCHES              18.5
REGULAR2 C  US:TX007936    190 31:04 094:06(68-89) SAM RAYBURN DAM          31.9
REGULAR3 C  US:TX001578    330 31:48 094:10(22-89) CENTER                   35.7
*********************************************************************
* GPS SITE:  2/483689      N30:42:21 W094:51:34 ELEV:  341, 1987
*********************************************************************
FIRST O. F  US:TX004300    100 29:58 095:21(69-89) HOUSTON WSCMO AP         58.8
ACTIVE   C  US:TX005271    180 30:44 094:56(37-89) LIVINGSTON 2 NNE          4.8
REGULAR1 C  US:TX001870    360 30:32 095:09(54-89) COLDSPRING 5 SSW         21.0
REGULAR2 C  US:TX001810    200 30:22 095:05(54-89) CLEVELAND                27.0
REGULAR3 C  US:TX003778    350 31:04 095:08(23-89) GROVETON                 29.8
*********************************************************************
* GPS SITE:  4/483699      N29:36:57 W095:36:20 ELEV:   84, 1973
*********************************************************************
FIRST O. F  US:TX004307     50 29:39 095:17(41-89) HOUSTON FAA AP           19.5
ACTIVE   C  US:TX008728     80 29:37 095:38(46-89) SUGAR LAND                1.7
REGULAR1 C  US:TX008996     70 29:29 095:38(42-89) THOMPSONS 3 WSW           9.3
REGULAR2 C  US:TX000204     40 29:25 095:13( 1-89) ALVIN (HOU AREA WSO)     27.1
REGULAR3 F  US:TX004300    100 29:58 095:21(69-89) HOUSTON WSCMO AP         28.7
*********************************************************************
* GPS SITE:  5/483719      N30:01:00 W094:03:00 ELEV:   21, 1965
*********************************************************************
FIRST O. F  US:TX007174     20 29:57 094:01(47-89) PORT ARTHUR WSO AP        5.0
ACTIVE   C  US:TX006664     20 30:07 093:47( 5-89) ORANGE 4 NW              17.4
REGULAR1 C  US:LA003979     10 29:53 093:25(48-89) HACKBERRY 8 SSW          39.1
REGULAR2 C  US:TX000235     20 29:47 094:40( 9-89) ANAHUAC                  40.3
REGULAR3 C  US:TX004819    180 30:37 093:49(29-77) KIRBYVILLE 5 ESE         43.7
*********************************************************************
* GPS SITE:  1/483729      N26:05:00 W097:35:00 ELEV:   38, 1983
*********************************************************************
FIRST O. F  US:TX001136     20 25:54 097:26( 1-89) BROWNSVILLE WSO AP       15.7
ACTIVE   C  US:TX003943     30 26:12 097:40(11-89) HARLINGEN                 9.6
REGULAR1 C  US:TX007179     20 26:04 097:13(28-89) PORT ISABEL              22.8
REGULAR2 C  US:TX009588     80 26:09 097:58(47-89) WESLACO 2 E              24.2
REGULAR3 C  US:TX007458     30 26:29 097:48(10-89) RAYMONDVILLE             30.7
*********************************************************************
* GPS SITE:  1/483739      N26:59:00 W097:48:00 ELEV:   36, 1982
*********************************************************************
FIRST O. F  US:TX002015     40 27:46 097:30(48-89) CORPUS CHRISTI WSO AP    57.1
ACTIVE   C  US:TX003063    120 27:14 098:08( 7-89) FALFURRIAS               26.8
REGULAR1 C  US:TX007458     30 26:29 097:48(10-89) RAYMONDVILLE             34.5
REGULAR2 C  US:TX007184     10 26:33 097:26(58-89) PORT MANSFIELD           37.5
REGULAR3 C  US:TX004810     70 27:33 097:53( 2-89) KINGSVILLE               39.5
*********************************************************************
* GPS SITE:  1/483749      N27:56:00 W098:33:00 ELEV:  570, 1981
*********************************************************************
FIRST O. F  US:TX002015     40 27:46 097:30(48-89) CORPUS CHRISTI WSO AP    65.2
ACTIVE   C  US:TX003341    530 27:53 098:37(47-89) FREER                     5.3
REGULAR1 C  US:TX000690    380 27:36 098:25(62-89) BENAVIDES 2              24.4
REGULAR2 C  US:TX000144    200 27:44 098:04(11-89) ALICE                    32.6
REGULAR3 C  US:TX009031    350 28:25 098:32( 3-89) TILDEN                   33.4
*********************************************************************
* GPS SITE:  1/483769      N31:48:00 W106:15:00 ELEV: 3991, 1976
*********************************************************************
FIRST O. F  US:TX002797   3920 31:48 106:24(48-89) EL PASO WSO AP           8.8
ACTIVE   C  US:TX009966   3670 31:42 106:19(39-89) YSLETA                   7.9
REGULAR1 C  US:TX004931   3800 31:58 106:36(43-89) LA TUNA 1 S              23.6
REGULAR2 C  US:TX009088   3530 31:25 106:05(46-89) TORNILLO 2 SSE           28.2
REGULAR3 C  US:NM006435   4180 32:23 106:06(48-89) OROGRANDE                41.2
*********************************************************************
* GPS SITE:  5/483779      N31:47:00 W106:26:00 ELEV: 3778, 1978
*********************************************************************
FIRST O. F  US:TX002797   3920 31:48 106:24(48-89) EL PASO WSO AP           2.3
ACTIVE   C  US:TX009966   3670 31:42 106:19(39-89) YSLETA                   9.0
REGULAR1 C  US:TX004931   3800 31:58 106:36(43-89) LA TUNA 1 S              16.0
REGULAR2 C  US:TX002794   5240 31:50 105:56(83-89) EL PASO 15 ENE           29.6
REGULAR3 C  US:TX009088   3530 31:25 106:05(46-89) TORNILLO 2 SSE           32.7
```

```
**********************************************************************
* GPS SITE:  9/483845      N33:35:00 W097:10:00 ELEV:  762, 1960
**********************************************************************
FIRST O. F  US:TX002242    550 32:54 097:02(74-89) DAL-FTW REG WSCMO AP      46.7
ACTIVE   C  US:TX007028    690 33:23 096:58(47-89) PILOT POINT               17.1
REGULAR1 C  US:TX003415    760 33:38 097:08( 1-87) GAINESVILLE                5.0
REGULAR2 C  US:OK005563    850 33:56 097:07(48-89) MARIETTA                  25.5
REGULAR3 C  US:TX002404    630 33:12 097:06(13-89) DENTON 2 SE               25.6
**********************************************************************
* GPS SITE:  1/483855      N29:53:57 W096:48:27 ELEV:  320, 1979
**********************************************************************
FIRST O. F  US:TX001889    310 30:35 096:21(51-89) COLLEGE STATION FAA A     54.6
ACTIVE   C  US:TX004903    360 29:55 096:52(10-89) LA GRANGE                  3.7
REGULAR1 C  US:TX001911    200 29:43 096:32(15-89) COLUMBUS                  20.7
REGULAR2 C  US:TX008415    320 30:01 097:09(17-89) SMITHVILLE                22.1
REGULAR3 C  US:TX003183    520 29:40 097:07( 8-89) FLATONIA                  24.5
**********************************************************************
* GPS SITE:  1/483865      N31:34:35 W098:40:00 ELEV: 1473, 1969
**********************************************************************
FIRST O. F  US:TX000016   1760 32:26 099:41(48-89) ABILENE WSO AP           84.0
ACTIVE   C  US:TX003614   1500 31:27 098:35(23-89) GOLDTHWAITE 1 WSW        10.0
REGULAR1 C  US:TX001138   1390 31:43 099:00(47-89) BROWNWOOD                21.9
REGULAR2 C  US:TX007992   1200 31:11 098:43( 1-89) SAN SABA                 27.3
REGULAR3 C  US:TX003005   1270 31:27 098:13(41-89) EVANT 4 SW               27.9
**********************************************************************
* GPS SITE:  1/483875      N36:09:55 W102:01:30 ELEV: 3602, 1985
**********************************************************************
FIRST O. F  US:NM001887   4970 36:27 103:09( 9-89) CLAYTON WSO AP           65.7
ACTIVE   C  US:TX008692   3690 36:21 102:05(11-89) STRATFORD               13.2
REGULAR1 C  US:TX002617   3660 35:52 101:58(37-89) DUMAS                    20.9
REGULAR2 C  US:TX002240   3990 36:01 102:33(48-89) DALHART FAA AP           31.1
REGULAR3 C  US:TX003787   3170 36:15 101:24(41-89) GRUVER                   35.4
**********************************************************************
* GPS SITE:  4/484142      N31:01:30 W093:59:00 ELEV:  363, 1972
**********************************************************************
FIRST O. F  US:TX007174     20 29:57 094:01(47-89) PORT ARTHUR WSO AP       74.3
ACTIVE   C  US:TX007936    190 31:04 094:06(68-89) SAM RAYBURN DAM           7.5
REGULAR1 C  US:TX009101    210 30:48 094:11(70-89) TOWN BLUFF DAM           19.6
REGULAR2 C  US:TX009068    190 31:11 093:34(75-89) TOLEDO BEND DAM          27.0
REGULAR3 C  US:LA008046    240 30:57 093:17(69-89) ROSEPINE RESEARCH STA    41.8
**********************************************************************
* GPS SITE:  4/484143      N30:02:30 W094:22:30 ELEV:   42, 1970
**********************************************************************
FIRST O. F  US:TX007174     20 29:57 094:01(47-89) PORT ARTHUR WSO AP       22.4
ACTIVE   C  US:TX000613     30 30:04 094:17(48-89) BEAUMONT RESEARCH CTR     5.8
REGULAR1 C  US:TX000235     20 29:47 094:40( 9-89) ANAHUAC                  25.0
REGULAR2 C  US:TX005196     40 30:03 094:48( 4-89) LIBERTY                  25.5
REGULAR3 C  US:TX006664     20 30:07 093:47( 5-89) ORANGE 4 NW              35.8
**********************************************************************
* GPS SITE:  4/484146      N29:43:00 W094:55:30 ELEV:   21, 1981
**********************************************************************
FIRST O. F  US:TX004307     50 29:39 095:17(41-89) HOUSTON FAA AP           22.0
ACTIVE   C  US:TX000586     30 29:50 095:00(46-89) BAYTOWN                   9.2
REGULAR1 C  US:TX000235     20 29:47 094:40( 9-89) ANAHUAC                  16.2
REGULAR2 C  US:TX004328     60 29:55 095:09(54-89) HOUSTON SAN JACINTO D    19.3
REGULAR3 C  US:TX005196     40 30:03 094:48( 4-89) LIBERTY                  24.2
**********************************************************************
* GPS SITE:  4/484152      N30:04:30 W094:46:30 ELEV:   47, 1981
**********************************************************************
FIRST O. F  US:TX004300    100 29:58 095:21(69-89) HOUSTON WSCMO AP         35.2
ACTIVE   C  US:TX005196     40 30:03 094:48( 4-89) LIBERTY                   2.3
REGULAR1 C  US:TX000235     20 29:47 094:40( 9-89) ANAHUAC                  21.2
REGULAR2 C  US:TX000586     30 29:50 095:00(46-89) BAYTOWN                  21.5
REGULAR3 C  US:TX004328     60 29:55 095:09(54-89) HOUSTON SAN JACINTO D    25.0
**********************************************************************
* GPS SITE:  5/485024      N29:43:32 W096:34:42 ELEV:  210, 1982
**********************************************************************
FIRST O. F  US:TX001889    310 30:35 096:21(51-89) COLLEGE STATION FAA A     60.8
ACTIVE   C  US:TX001911    200 29:43 096:32(15-89) COLUMBUS                  2.8
REGULAR1 C  US:TX004903    360 29:55 096:52(10-89) LA GRANGE                21.8
REGULAR2 C  US:TX008160    190 29:47 096:08(10-89) SEALY                    27.0
REGULAR3 C  US:TX003873    280 29:28 096:57( 1-89) HALLETTSVILLE 2 N        28.6
```

```
**********************************************************************
* GPS SITE:  5/485026      N29:02:00 W095:28:00 ELEV:   18, 1987
**********************************************************************
FIRST O. F  US:TX004307     50 29:39 095:17(41-89) HOUSTON FAA AP          44.0
ACTIVE   C  US:TX003340     10 28:59 095:23(31-89) FREEPORT 2 NW            6.1
REGULAR1 C  US:TX000257     30 29:09 095:27(13-89) ANGLETON 2 W             8.1
REGULAR2 C  US:TX000204     40 29:25 095:13( 1-89) ALVIN (HOU AREA WSO)    30.5
REGULAR3 C  US:TX006286     70 29:16 095:54(46-89) NEW GULF                30.7
**********************************************************************
* GPS SITE:  5/485035      N32:48:00 W096:40:00 ELEV:  559, 1979
**********************************************************************
FIRST O. F  US:TX002244    440 32:51 096:51( 1-89) DALLAS FAA AP           11.2
ACTIVE   C  US:TX003133    480 32:32 096:40(40-89) FERRIS                  18.4
REGULAR1 C  US:TX005094    510 33:02 096:29(49-89) LAVON DAM               19.3
REGULAR2 F  US:TX002242    550 32:54 097:02(74-89) DAL-FTW REG WSCMO AP    22.4
REGULAR3 C  US:TX003691    590 32:58 097:03( 1-89) GRAPEVINE DAM           25.1
**********************************************************************
* GPS SITE:  5/485154      N29:41:35 W097:12:47 ELEV:  355, 1971
**********************************************************************
FIRST O. F  US:TX000428    600 30:18 097:42(30-89) AUSTIN WSO AP           51.1
ACTIVE   C  US:TX003183    520 29:40 097:07( 8-89) FLATONIA                 6.1
REGULAR1 C  US:TX003622    310 29:30 097:27(15-89) GONZALES                19.5
REGULAR2 C  US:TX003873    280 29:28 096:57( 1-89) HALLETTSVILLE 2 N       22.2
REGULAR3 C  US:TX008415    320 30:01 097:09(17-89) SMITHVILLE              22.7
**********************************************************************
* GPS SITE:  5/485274      N32:40:00 W097:12:00 ELEV:  641, 1973
**********************************************************************
FIRST O. F  US:TX002242    550 32:54 097:02(74-89) DAL-FTW REG WSCMO AP    18.8
ACTIVE   C  US:TX000691    790 32:39 097:27(49-89) BENBROOK DAM            14.6
REGULAR1 C  US:TX002677    760 32:53 097:27(78-89) EAGLE MOUNTAIN LAKE     20.9
REGULAR2 C  US:TX003691    590 32:58 097:03( 1-89) GRAPEVINE DAM           22.5
REGULAR3 F  US:TX002244    440 32:51 096:51( 1-89) DALLAS FAA AP           24.0
**********************************************************************
* GPS SITE:  5/485278      N31:54:55 W102:14:34 ELEV: 2868, 1975
**********************************************************************
FIRST O. F  US:TX005890   2860 31:57 102:11(48-89) MIDLAND/ODESSA WSO AP   4.2
ACTIVE   C  US:TX005891   2740 32:01 102:01(47-89) MIDLAND 4 ENE          15.0
REGULAR1 C  US:TX006932   2940 31:44 102:35(55-89) PENWELL               23.6
REGULAR2 C  US:TX005888   2700 31:38 101:50(81-89) MIDKIFF               31.0
REGULAR3 C  US:TX000248   3170 32:19 102:32(14-89) ANDREWS               32.5
**********************************************************************
* GPS SITE:  5/485283      N32:52:00 W097:05:00 ELEV:  560, 1988
**********************************************************************
FIRST O. F  US:TX002242    550 32:54 097:02(74-89) DAL-FTW REG WSCMO AP     3.7
ACTIVE   C  US:TX003691    590 32:58 097:03( 1-89) GRAPEVINE DAM            7.2
REGULAR1 F  US:TX002244    440 32:51 096:51( 1-89) DALLAS FAA AP           13.6
REGULAR2 C  US:TX002677    760 32:53 097:27(78-89) EAGLE MOUNTAIN LAKE     21.3
REGULAR3 C  US:TX002404    630 33:12 097:06(13-89) DENTON 2 SE             23.0
**********************************************************************
* GPS SITE:  5/485284      N32:54:00 W097:05:00 ELEV:  562, 1988
**********************************************************************
FIRST O. F  US:TX002242    550 32:54 097:02(74-89) DAL-FTW REG WSCMO AP     2.9
ACTIVE   C  US:TX003691    590 32:58 097:03( 1-89) GRAPEVINE DAM            5.0
REGULAR1 F  US:TX002244    440 32:51 096:51( 1-89) DALLAS FAA AP           14.0
REGULAR2 C  US:TX002404    630 33:12 097:06(13-89) DENTON 2 SE             20.7
REGULAR3 C  US:TX002677    760 32:53 097:27(78-89) EAGLE MOUNTAIN LAKE     21.3
**********************************************************************
* GPS SITE:  5/485287      N32:50:00 W097:20:00 ELEV:  679, 1973
**********************************************************************
FIRST O. F  US:TX002242    550 32:54 097:02(74-89) DAL-FTW REG WSCMO AP    18.0
ACTIVE   C  US:TX002677    760 32:53 097:27(78-89) EAGLE MOUNTAIN LAKE     7.6
REGULAR1 C  US:TX000691    790 32:39 097:27(49-89) BENBROOK DAM            14.4
REGULAR2 C  US:TX003691    590 32:58 097:03( 1-89) GRAPEVINE DAM           18.9
REGULAR3 F  US:TX002244    440 32:51 096:51( 1-89) DALLAS FAA AP           28.1
**********************************************************************
* GPS SITE:  5/485301      N32:42:00 W097:28:00 ELEV:  704, 1982
**********************************************************************
FIRST O. F  US:TX002242    550 32:54 097:02(74-89) DAL-FTW REG WSCMO AP    28.7
ACTIVE   C  US:TX000691    790 32:39 097:27(49-89) BENBROOK DAM             3.6
REGULAR1 C  US:TX002677    760 32:53 097:27(78-89) EAGLE MOUNTAIN LAKE     12.7
REGULAR2 C  US:TX009532   1070 32:46 097:49( 2-89) WEATHERFORD             20.9
REGULAR3 C  US:TX001800    780 32:20 097:24( 7-89) CLEBURNE                25.6
```

```
**********************************************************************
* GPS SITE:  5/485310      N33:13:00 W097:36:00 ELEV:  911, 1987
**********************************************************************
FIRST O. F  US:TX002242    550 32:54 097:02(74-89) DAL-FTW REG WSCMO AP      39.5
ACTIVE   C  US:TX001063    750 33:13 097:46(15-89) BRIDGEPORT                9.6
REGULAR1 C  US:TX002677    760 32:53 097:27(78-89) EAGLE MOUNTAIN LAKE      24.6
REGULAR2 C  US:TX000984   1120 33:34 097:51( 1-89) BOWIE                    28.2
REGULAR3 C  US:TX002404    630 33:12 097:06(13-89) DENTON 2 SE              29.0
**********************************************************************
* GPS SITE:  5/485317      N32:35:00 W097:08:00 ELEV:  650, 1982
**********************************************************************
FIRST O. F  US:TX002242    550 32:54 097:02(74-89) DAL-FTW REG WSCMO AP      22.6
ACTIVE   C  US:TX000691    790 32:39 097:27(49-89) BENBROOK DAM              19.0
REGULAR1 C  US:TX009522    630 32:25 096:51( 1-89) WAXAHACHIE                20.1
REGULAR2 C  US:TX001800    780 32:20 097:24( 7-89) CLEBURNE                  23.2
REGULAR3 F  US:TX002244    440 32:51 096:51( 1-89) DALLAS FAA AP             24.7
**********************************************************************
* GPS SITE:  5/485323      N35:12:00 W101:07:00 ELEV: 3290, 1980
**********************************************************************
FIRST O. F  US:TX000211   3590 35:14 101:42(48-89) AMARILLO WSO AP          33.0
ACTIVE   C  US:TX001778   3400 35:07 101:22( 4-89) CLAUDE                  15.3
REGULAR1 C  US:TX006785   3440 35:21 101:23(11-89) PANHANDLE               18.3
REGULAR2 C  US:TX001761   2700 34:56 100:53( 4-89) CLARENDON               22.7
REGULAR3 C  US:TX006776   3150 35:34 100:58(64-89) PAMPA 2                  26.7
**********************************************************************
* GPS SITE:  5/485328      N33:35:00 W097:55:00 ELEV: 1033, 1975
**********************************************************************
FIRST O. F  US:TX009729    990 33:58 098:29( 1-89) WICHITA FALLS WSO AP      42.0
ACTIVE   C  US:TX000984   1120 33:34 097:51( 1-89) BOWIE                     4.0
REGULAR1 C  US:TX004093    900 33:49 098:12( 2-89) HENRIETTA                22.9
REGULAR2 C  US:TX001063    750 33:13 097:46(15-89) BRIDGEPORT               26.8
REGULAR3 C  US:TX004517   1100 33:14 098:09(41-89) JACKSBORO               27.7
**********************************************************************
* GPS SITE:  5/485334      N35:13:00 W100:13:00 ELEV: 2302, 1970
**********************************************************************
FIRST O. F  US:OK003407   2190 36:18 099:46(48-89) GAGE FAA AP             79.0
ACTIVE   C  US:TX008236   2360 35:13 100:15(62-89) SHAMROCK NO 2            1.9
REGULAR1 C  US:TX005770   2860 35:14 100:36(48-89) MC LEAN                 21.7
REGULAR2 C  US:OK002944   1990 35:12 099:48(48-89) ERICK 4 E               23.6
REGULAR3 C  US:TX009565   2040 34:50 100:13(12-89) WELLINGTON              26.5
**********************************************************************
* GPS SITE:  5/485335      N35:11:00 W101:04:00 ELEV: 3265, 1980
**********************************************************************
FIRST O. F  US:TX000211   3590 35:14 101:42(48-89) AMARILLO WSO AP          36.0
ACTIVE   C  US:TX001778   3400 35:07 101:22( 4-89) CLAUDE                  17.6
REGULAR1 C  US:TX001761   2700 34:56 100:53( 4-89) CLARENDON               20.1
REGULAR2 C  US:TX006785   3440 35:21 101:23(11-89) PANHANDLE               21.3
REGULAR3 C  US:TX005770   2860 35:14 100:36(48-89) MC LEAN                 26.6
**********************************************************************
* GPS SITE:  5/485336      N34:58:00 W101:52:00 ELEV: 3551, 1987
**********************************************************************
FIRST O. F  US:TX000211   3590 35:14 101:42(48-89) AMARILLO WSO AP          20.7
ACTIVE   C  US:TX001430   3590 34:59 101:56(23-89) CANYON                   3.9
REGULAR1 C  US:TX001778   3400 35:07 101:22( 4-89) CLAUDE                  30.2
REGULAR2 C  US:TX009175   3480 34:32 101:46(47-89) TULIA                   30.5
REGULAR3 C  US:TX004098   3820 34:49 102:24( 5-89) HEREFORD                32.0
**********************************************************************
* GPS SITE: 6A/486079      N35:10:00 W103:01:00 ELEV: 3826, 1973
**********************************************************************
FIRST O. F  US:TX000211   3590 35:14 101:42(48-89) AMARILLO WSO AP          74.6
ACTIVE   C  US:NM007867   4230 35:07 103:20(48-89) SAN JON                 18.2
REGULAR1 C  US:NM001332   4600 34:54 103:23(48-89) CAMERON                 27.8
REGULAR2 F  US:NM009153   4050 35:11 103:36(48-82) TUCUMCARI FAA AP        33.0
REGULAR3 C  US:TX001033   4160 35:39 103:00(48-89) BRAVO                   33.4
**********************************************************************
* GPS SITE: 6A/486086      N28:10:00 W097:51:00 ELEV:  186, 1971
**********************************************************************
FIRST O. F  US:TX002015     40 27:46 097:30(48-89) CORPUS CHRISTI WSO AP    34.9
ACTIVE   C  US:TX005661    140 28:02 097:52(64-89) MATHIS 4 SSW              9.3
REGULAR1 C  US:TX000639    260 28:27 097:42( 1-89) BEEVILLE 5 NE            21.6
REGULAR2 C  US:TX008354     50 28:03 097:30(21-89) SINTON                   22.8
REGULAR3 C  US:TX007677     90 27:47 097:40(22-89) ROBSTOWN                 28.7
```

```
*********************************************************************
* GPS SITE: 6A/486160      N34:25:46 W102:59:17 ELEV: 4140, 1962
*********************************************************************
FIRST O. F  US:TX005411   3250 33:39 101:49(11-89) LUBBOCK WSFO AP          86.1
ACTIVE   C  US:NM001939   4280 34:22 103:12(10-89) CLOVIS 3 SSW            12.9
REGULAR1 C  US:NM001963   4440 34:36 103:13(49-89) CLOVIS 13 N             17.6
REGULAR2 C  US:TX006135   3760 34:14 102:45(21-89) MULESHOE 1              19.2
REGULAR3 C  US:TX003368   4030 34:38 102:43(27-89) FRIONA                  20.9
*********************************************************************
* GPS SITE: 6A/486179      N34:18:51 W102:53:07 ELEV: 3987, 1965
*********************************************************************
FIRST O. F  US:TX005411   3250 33:39 101:49(11-89) LUBBOCK WSFO AP          76.6
ACTIVE   C  US:TX006135   3760 34:14 102:45(21-89) MULESHOE 1               9.5
REGULAR1 C  US:NM001939   4280 34:22 103:12(10-89) CLOVIS 3 SSW            18.3
REGULAR2 C  US:TX003368   4030 34:38 102:43(27-89) FRIONA                  24.0
REGULAR3 C  US:NM001963   4440 34:36 103:13(49-89) CLOVIS 13 N             27.3
*********************************************************************
* GPS SITE: 7A/487165      N29:47:00 W095:16:00 ELEV:   43, 1962
*********************************************************************
FIRST O. F  US:TX004307     50 29:39 095:17(41-89) HOUSTON FAA AP           9.3
ACTIVE   F  US:TX004300    100 29:58 095:21(69-89) HOUSTON WSCMO AP        13.6
REGULAR1 C  US:TX000586     30 29:50 095:00(46-89) BAYTOWN                 16.4
REGULAR2 C  US:TX008728     80 29:37 095:38(46-89) SUGAR LAND              24.9
REGULAR3 C  US:TX000204     40 29:25 095:13( 1-89) ALVIN (HOU AREA WSO)    25.5
*********************************************************************
* GPS SITE:  1/489005      N29:30:00 W098:43:00 ELEV:  910, 1986
*********************************************************************
FIRST O. F  US:TX007945    790 29:32 098:28(46-89) SAN ANTONIO WSFO        15.2
ACTIVE   C  US:TX005454    720 29:14 098:50(76-89) LYTLE 3 W               19.7
REGULAR1 C  US:TX000902   1420 29:48 098:43( 1-89) BOERNE                  20.7
REGULAR2 C  US:TX004256    920 29:21 099:10(75-89) HONDO WSMO AP           29.0
REGULAR3 C  US:TX007215    480 29:02 098:35(41-89) POTEET                  33.2
*********************************************************************
* GPS SITE:  9/489167      N31:54:00 W096:22:00 ELEV:  356, 1967
*********************************************************************
FIRST O. F  US:TX009419    500 31:37 097:13(30-89) WACO WSO AP             53.7
ACTIVE   C  US:TX002019    430 32:05 096:28( 1-89) CORSICANA               14.0
REGULAR1 C  US:TX005869    540 31:41 096:29( 4-89) MEXIA                   16.5
REGULAR2 C  US:TX003047    440 31:44 096:06(41-89) FAIRFIELD 4 E           19.4
REGULAR3 C  US:TX006210    450 31:57 096:42(63-89) NAVARRO MILLS DAM       19.9
*********************************************************************
* GPS SITE:  9/489355      N32:28:45 W096:50:00 ELEV:  635, 1960
*********************************************************************
FIRST O. F  US:TX002244    440 32:51 096:51( 1-89) DALLAS FAA AP           25.6
ACTIVE   C  US:TX009522    630 32:25 096:51( 1-89) WAXAHACHIE               4.4
REGULAR1 C  US:TX003133    480 32:32 096:40(40-89) FERRIS                  10.4
REGULAR2 C  US:TX000518    460 32:16 096:38(65-89) BARDWELL DAM            18.8
REGULAR3 F  US:TX002242    550 32:54 097:02(74-89) DAL-FTW REG WSCMO AP    31.3
*********************************************************************
* GPS SITE:  1/491001      N37:16:40 W109:35:05 ELEV: 4384, 1982
*********************************************************************
FIRST O. F  US:CO003488   4850 39:06 108:33( 1-89) GRAND JUNCTION WSO AP  137.8  REJECTED
ACTIVE   C  US:UT000788   4320 37:17 109:33(28-89) BLUFF                    1.9
REGULAR1 C  US:UT000157   4620 37:15 109:20(59-89) ANETH PLANT             14.0
REGULAR2 C  US:UT005582   4120 37:09 109:52(48-89) MEXICAN HAT             17.9
REGULAR3 C  US:UT000738   6130 37:37 109:28( 4-89) BLANDING                24.3
*********************************************************************
* GPS SITE: 6A/491004      N38:01:55 W112:21:35 ELEV: 6321, 1973
*********************************************************************
FIRST O. F  US:UT001008   7920 37:39 112:10(59-89) BRYCE CANYON NP HQ      28.4  REJECTED
ACTIVE   C  US:UT001432   6060 38:10 112:16(48-89) CIRCLEVILLE            10.6
REGULAR1 C  US:UT006601   6720 37:49 112:27(48-89) PANGUITCH              15.7
REGULAR2 C  US:UT000519   5940 38:18 112:38(28-89) BEAVER                 23.7  REJECTED
REGULAR3 C  US:UT001002   7590 37:42 112:09(48-83) BRYCE CANYON FAA AP     25.6
*********************************************************************
* GPS SITE: 6A/491005      N41:04:30 W111:54:30 ELEV: 4800, 1971
*********************************************************************
FIRST O. F  US:UT007598   4220 40:47 111:57(48-89) SALT LAKE CITY NWSFO    20.3
ACTIVE   C  US:UT002726   4340 41:01 111:55(48-89) FARMINGTON USU FLD ST    4.1
REGULAR1 C  US:UT007318   4400 41:09 112:00(28-89) RIVERDALE               7.0
REGULAR2 C  US:UT005826   5060 41:02 111:41(48-89) MORGAN                  12.1  REJECTED
REGULAR3 C  US:UT006404   4350 41:15 111:57(48-89) OGDEN PIONEER P H       12.3
```

```
*****************************************************************
* GPS SITE: 6A/491006      N39:10:30 W111:50:15 ELEV: 5132, 1975
*****************************************************************
FIRST O. F  US:UT005654   5030 38:26 113:01(28-89) MILFORD WSMO          81.6  REJECTED
ACTIVE   C  US:UT003514   5150 39:09 111:49(56-89) GUNNISON              2.1
REGULAR1 C  US:UT005402   5740 39:15 111:38(28-89) MANTI                12.1
REGULAR2 C  US:UT007557   5130 38:58 111:52(28-89) SALINA               14.5
REGULAR3 C  US:UT007714   5310 39:15 112:06(28-89) SCIPIO               15.0  REJECTED
*****************************************************************
* GPS SITE: 6A/491007      N39:36:15 W110:48:00 ELEV: 5600, 1984
*****************************************************************
FIRST O. F  US:UT001588   5550 40:55 111:24(48-89) COALVILLE            96.0  REJECTED
ACTIVE   C  US:UT007026   5680 39:37 110:50(68-89) PRICE WAREHOUSES      2.0
REGULAR1 C  US:UT003896   7280 39:29 111:01(21-89) HIAWATHA             14.3  REJECTED
REGULAR2 C  US:UT007724   7630 39:47 111:07(48-89) SCOFIELD DAM         20.9  REJECTED
REGULAR3 C  US:UT007729   8710 39:41 111:12(84-89) SCOFIELD SKYLINE MINE 22.0  REJECTED
*****************************************************************
* GPS SITE:  1/491008      N38:56:35 W111:51:10 ELEV: 5200, 1973
*****************************************************************
FIRST O. F  US:UT005654   5030 38:26 113:01(28-89) MILFORD WSMO          72.0  REJECTED
ACTIVE   C  US:UT007557   5130 38:58 111:52(28-89) SALINA               1.8
REGULAR1 C  US:UT007800   5310 38:51 112:00(80-89) SIGURD U P & L        10.2
REGULAR2 C  US:UT003514   5150 39:09 111:49(56-89) GUNNISON             14.4
REGULAR3 C  US:UT007260   5270 38:46 112:05(28-89) RICHFIELD RADIO KSVC  17.4
*****************************************************************
* GPS SITE:  1/491017      N38:33:56 W112:15:40 ELEV: 5600, 1968
*****************************************************************
FIRST O. F  US:UT005654   5030 38:26 113:01(28-89) MILFORD WSMO          41.9  REJECTED
ACTIVE   C  US:UT005477   5910 38:27 112:14(48-89) MARYSVALE             8.1
REGULAR1 C  US:UT007260   5270 38:46 112:05(28-89) RICHFIELD RADIO KSVC  16.9
REGULAR2 C  US:UT004527   5010 38:48 112:26(28-89) KANOSH                18.7
REGULAR3 C  US:UT004764   6930 38:31 111:53(48-89) KOOSHAREM             20.7  REJECTED
*****************************************************************
* GPS SITE:  3/493010      N37:55:30 W112:46:20 ELEV: 5764, 1981
*****************************************************************
FIRST O. F  US:UT005654   5030 38:26 113:01(28-89) MILFORD WSMO          37.5  REJECTED
ACTIVE   C  US:UT006686   6000 37:50 112:50(48-89) PAROWAN POWER PLANT   7.2
REGULAR1 C  US:UT006601   6720 37:49 112:27(48-89) PANGUITCH             19.1
REGULAR2 C  US:UT001260   6450 37:39 112:59(83-89) CEDAR CITY 5 E        22.2
REGULAR3 C  US:UT001267   5620 37:42 113:06(48-89) CEDAR CITY FAA AP     23.7
*****************************************************************
* GPS SITE:  3/493011      N39:40:55 W111:50:45 ELEV: 5105, 1986
*****************************************************************
FIRST O. F  US:UT007598   4220 40:47 111:57(48-89) SALT LAKE CITY NWSFO  76.3  REJECTED
ACTIVE   C  US:UT006135   5130 39:42 111:50(41-89) NEPHI                 1.4
REGULAR1 C  US:UT005065   5300 39:34 111:52(28-89) LEVAN                 8.0
REGULAR2 C  US:UT005837   5560 39:32 111:35(48-89) MORONI                17.3  REJECTED
REGULAR3 C  US:UT002418   4680 39:57 111:57(28-89) ELBERTA               19.3  REJECTED
*****************************************************************
* GPS SITE:  3/493015      N40:50:00 W111:56:00 ELEV: 4245, 1969
*****************************************************************
FIRST O. F  US:UT007598   4220 40:47 111:57(48-89) SALT LAKE CITY NWSFO   3.6
ACTIVE   C  US:UT008922   4800 40:46 111:50(49-89) UNIVERSITY OF UTAH     7.0
REGULAR1 C  US:UT007578   4210 40:46 112:06(56-89) SALTAIR SALT PLANT     9.9
REGULAR2 C  US:UT002726   4340 41:01 111:55(48-89) FARMINGTON USU FLD ST  12.7
REGULAR3 C  US:UT005892   5420 40:45 111:43(48-89) MOUNTAIN DELL DAM      12.7
*****************************************************************
* GPS SITE:  3/497082      N41:50:00 W112:11:00 ELEV: 4527, 1990
*****************************************************************
FIRST O. F  US:ID005559   4470 42:10 112:17(48-89) MALAD CITY            23.6  REJECTED
ACTIVE   C  US:UT001918   4290 41:50 112:03(80-89) CULTER DAM U P & L     6.9
REGULAR1 C  US:UT008817   4310 41:43 112:10(79-89) TREMONTON              8.1
REGULAR2 C  US:UT008828   4460 41:55 111:56(48-89) TRENTON               14.1
REGULAR3 C  US:UT008668   4600 41:43 112:26(62-89) THIOKOL PLANT 78       15.2
*****************************************************************
* GPS SITE:  3/497083      N38:47:00 W112:08:00 ELEV: 5113, 1989
*****************************************************************
FIRST O. F  US:UT005654   5030 38:26 113:01(28-89) MILFORD WSMO          53.5  REJECTED
ACTIVE   C  US:UT007260   5270 38:46 112:05(28-89) RICHFIELD RADIO KSVC  2.9
REGULAR1 C  US:UT007800   5310 38:51 112:00(80-89) SIGURD U P & L        8.5
REGULAR2 C  US:UT002828   5120 38:57 112:19(28-89) FILLMORE              15.2  REJECTED
REGULAR3 C  US:UT004527   5010 38:48 112:26(28-89) KANOSH                16.2  REJECTED
```

```
*********************************************************************
* GPS SITE:  1/501002      N44:07:13 W073:10:44 ELEV:  283, 1984
*********************************************************************
FIRST O. F  US:VT001081    330 44:28 073:09(20-89) BURLINGTON WSO AP       24.0
ACTIVE   C  US:VT007612   2020 44:04 072:58(81-89) SOUTH LINCOLN          11.2
REGULAR1 C  US:VT001580    490 43:57 073:13(26-89) CORNWALL               11.9
REGULAR2 C  US:NY002554    580 44:13 073:35(48-89) ELIZABETHTOWN 1 N       21.1
REGULAR3 C  US:VT008815    760 44:19 072:45(58-89) WATERBURY 2 SSE         25.2
*********************************************************************
* GPS SITE:  1/501004      N44:38:45 W073:17:53 ELEV:  141, 1984
*********************************************************************
FIRST O. F  US:VT001081    330 44:28 073:09(20-89) BURLINGTON WSO AP       14.4
ACTIVE   C  US:VT007607   1100 44:38 073:18(69-89) SOUTH HERO             0.9
REGULAR1 C  US:NY006659    170 44:39 073:28(48-89) PLATTSBURGH AFB         8.3
REGULAR2 C  US:VT002843    340 44:31 073:07(71-89) ESSEX JUNCTION 1 N      12.6
REGULAR3 C  US:NY006538    510 44:34 073:34(48-89) PERU 2 WSW              14.3
*********************************************************************
* GPS SITE: 6B/501681      N44:18:35 W073:09:40 ELEV:  255, 1963
*********************************************************************
FIRST O. F  US:VT001081    330 44:28 073:09(20-89) BURLINGTON WSO AP       10.9
ACTIVE   C  US:VT008815    760 44:19 072:45(58-89) WATERBURY 2 SSE         20.4
REGULAR1 C  US:NY002554    580 44:13 073:35(48-89) ELIZABETHTOWN 1 N       21.9
REGULAR2 C  US:VT005416   3950 44:32 072:49(54-89) MOUNT MANSFIELD        23.0
REGULAR3 C  US:VT007607   1100 44:38 073:18(69-89) SOUTH HERO             23.4
*********************************************************************
* GPS SITE: 7B/501682      N44:19:40 W073:08:40 ELEV:  400, 1963
*********************************************************************
FIRST O. F  US:VT001081    330 44:28 073:09(20-89) BURLINGTON WSO AP        9.6
ACTIVE   C  US:VT008815    760 44:19 072:45(58-89) WATERBURY 2 SSE         19.5
REGULAR1 C  US:VT005416   3950 44:32 072:49(54-89) MOUNT MANSFIELD        21.5
REGULAR2 C  US:VT007607   1100 44:38 073:18(69-89) SOUTH HERO             22.5
REGULAR3 C  US:NY002554    580 44:13 073:35(48-89) ELIZABETHTOWN 1 N       23.1
*********************************************************************
* GPS SITE: 6B/501683      N44:19:42 W073:08:40 ELEV:  430, 1963
*********************************************************************
FIRST O. F  US:VT001081    330 44:28 073:09(20-89) BURLINGTON WSO AP        9.6
ACTIVE   C  US:VT008815    760 44:19 072:45(58-89) WATERBURY 2 SSE         19.5
REGULAR1 C  US:VT005416   3950 44:32 072:49(54-89) MOUNT MANSFIELD        21.5
REGULAR2 C  US:VT007607   1100 44:38 073:18(69-89) SOUTH HERO             22.4
REGULAR3 C  US:NY002554    580 44:13 073:35(48-89) ELIZABETHTOWN 1 N       23.1
*********************************************************************
* GPS SITE:  1/511002      N37:00:00 W080:18:00 ELEV: 2204, 1979
*********************************************************************
FIRST O. F  US:VA007285   1150 37:19 079:58(48-89) ROANOKE WSO AP         28.6
ACTIVE   C  US:VA003071   2600 36:56 080:18(48-89) FLOYD 2 NE              4.6
REGULAR1 C  US:VA000766   2000 37:11 080:25(52-89) BLACKSBURG 3 SE         14.2
REGULAR2 C  US:VA006692   1120 36:47 080:02(53-89) PHILPOTT DAM 2          21.0
REGULAR3 C  US:VA007338   1230 37:00 079:54(48-89) ROCKY MOUNT             22.1
*********************************************************************
* GPS SITE:  1/511023      N37:00:00 W077:23:00 ELEV:   98, 1980
*********************************************************************
FIRST O. F  US:VA007201    160 37:30 077:20(48-89) RICHMOND WSO AP         34.6
ACTIVE   C  US:VA008129     70 36:55 077:21(48-89) STONEY CREEK3 ESE        6.0
REGULAR1 C  US:VA004101     40 37:18 077:18(30-89) HOPEWELL                21.2
REGULAR2 C  US:VA008800     90 36:59 077:00(82-89) WAKEFIELD 2             21.2
REGULAR3 C  US:VA002790    100 36:41 077:33(48-89) EMPORIA 1 WNW           23.7
*********************************************************************
* GPS SITE: 6B/511417      N38:38:00 W077:56:00 ELEV:  320, 1981
*********************************************************************
FIRST O. F  US:VA008906     70 38:51 077:02(48-89) WASH NATL WSCMO AP       50.8
ACTIVE   C  US:VA008888    500 38:41 077:46(51-89) WARRENTON 3 SE           9.6
REGULAR1 C  US:VA002155    420 38:28 078:00(30-89) CULPEPER                12.1
REGULAR2 C  US:VA005096   1200 38:40 078:23(48-89) LURAY 5 E               24.4
REGULAR3 C  US:VA000720   3540 38:31 078:26(48-89) BIG MEADOWS             28.2
*********************************************************************
* GPS SITE: 6B/511419      N36:56:00 W081:59:00 ELEV: 2263, 1978
*********************************************************************
FIRST O. F  US:TN001094   1530 36:29 082:24(48-89) BRISTOL WSO AP         38.7
ACTIVE   C  US:VA000021   1920 36:40 081:58(69-89) ABINGDON 3 S           18.4
REGULAR1 C  US:VA003640   1170 37:16 082:05(48-89) GRUNDY                 23.7
REGULAR2 C  US:VA005271   2100 36:49 081:31(60-89) MARION EVAP STATION     27.0
REGULAR3 C  US:VA009215   2570 36:58 082:34(55-89) WISE 1 SE              32.3
```

```
*********************************************************************
* GPS SITE: 6B/511423      N36:51:00 W082:45:00 ELEV: 1819, 1978
*********************************************************************
FIRST O. F  US:TN001094   1530 36:29 082:24(48-89) BRISTOL WSO AP          31.9
ACTIVE   C  US:VA009215   2570 36:58 082:34(55-89) WISE 1 SE              13.0
REGULAR1 C  US:VA006626   1510 36:45 083:03(31-89) PENNINGTON GAP         18.0
REGULAR2 C  US:TN004858   1280 36:31 082:32(31-89) KINGSPORT              26.0
REGULAR3 C  US:KY000450   1160 36:51 083:20(48-89) BAXTER                 32.3
*********************************************************************
* GPS SITE: 6B/511464      N37:18:00 W077:42:00 ELEV:   82, 1979
*********************************************************************
FIRST O. F  US:VA007201    160 37:30 077:20(48-89) RICHMOND WSO AP         24.4
ACTIVE   C  US:VA000187    360 37:18 078:02(70-89) AMELIA 4 SW             18.3
REGULAR1 C  US:VA004101     40 37:18 077:18(30-89) HOPEWELL                22.0
REGULAR2 C  US:VA001322    330 37:02 077:57(72-89) CAMP PICKETT            23.0
REGULAR3 C  US:VA002142    300 37:38 077:48(76-89) CROZIER                 23.7
*********************************************************************
* GPS SITE:  2/512004      N36:35:00 W079:25:00 ELEV:  472, 1981
*********************************************************************
FIRST O. F  US:NC003630    890 36:05 079:57(33-89) GREENSBORO WSO AP        45.6
ACTIVE   C  US:VA002245    410 36:35 079:23(48-89) DANVILLE (BRIDGE ST)      1.9
REGULAR1 C  US:VA001614    640 36:49 079:24(30-89) CHATHAM                  16.1
REGULAR2 C  US:NC007202    890 36:23 079:42(62-89) REIDSVILLE 2 NW          21.0
REGULAR3 C  US:NC007516    730 36:24 079:00(48-89) ROXBORO                  26.4
*********************************************************************
* GPS SITE:  2/512021      N36:45:00 W080:00:00 ELEV: 2635, 1985
*********************************************************************
FIRST O. F  US:VA007285   1150 37:19 079:58(48-89) ROANOKE WSO AP          39.2
ACTIVE   C  US:VA006692   1120 36:47 080:02(53-89) PHILPOTT DAM 2          3.0
REGULAR1 C  US:VA008170   1460 36:38 080:16(60-89) STUART 1 SSE            16.8
REGULAR2 C  US:VA007338   1230 37:00 079:54(48-89) ROCKY MOUNT             18.1
REGULAR3 C  US:VA003071   2600 36:56 080:18(48-89) FLOYD 2 NE              20.9
*********************************************************************
* GPS SITE:  5/512564      N36:47:00 W076:22:00 ELEV:   22, 1969
*********************************************************************
FIRST O. F  US:VA006139     20 36:54 076:12(48-89) NORFOLK WSO AP          12.2
ACTIVE   C  US:VA008192     20 36:44 076:36(48-89) SUFFOLK LAKE KILBY      13.4
REGULAR1 C  US:VA002368     30 36:54 076:12(48-80) DIAMOND SPRINGS         12.2
REGULAR2 C  US:VA006054     50 37:01 076:27(48-80) NEWPORT NEWS PRESS BL   16.8
REGULAR3 C  US:VA004720     10 37:05 076:21(30-89) LANGLEY AIR FORCE BAS   20.7
*********************************************************************
* GPS SITE:  5/515008      N36:56:00 W076:17:00 ELEV:   13, 1977
*********************************************************************
FIRST O. F  US:VA006139     20 36:54 076:12(48-89) NORFOLK WSO AP           5.2
ACTIVE   C  US:VA004720     10 37:05 076:21(30-89) LANGLEY AIR FORCE BAS   11.0
REGULAR1 C  US:VA008192     20 36:44 076:36(48-89) SUFFOLK LAKE KILBY      22.3
REGULAR2 C  US:VA000385     10 36:40 075:55(53-89) BACK BAY WILDLIFE RFG   27.4
REGULAR3 C  US:VA004044     80 36:41 076:47(48-89) HOLLAND 1 E             32.6
*********************************************************************
* GPS SITE:  5/515009      N37:30:00 W077:15:00 ELEV:  133, 1980
*********************************************************************
FIRST O. F  US:VA007201    160 37:30 077:20(48-89) RICHMOND WSO AP          4.6
ACTIVE   C  US:VA004101     40 37:18 077:18(30-89) HOPEWELL                14.1
REGULAR1 C  US:VA008829     50 37:45 077:03(32-89) WALKERTON 2 NW          20.4
REGULAR2 C  US:VA000327    220 37:45 077:29(48-89) ASHLAND                 21.5
REGULAR3 C  US:VA009025     20 37:31 076:50(54-89) WEST POINT 2 SW         22.9
*********************************************************************
* GPS SITE:  5/515010      N37:28:00 W077:20:00 ELEV:  155, 1988
*********************************************************************
FIRST O. F  US:VA007201    160 37:30 077:20(48-89) RICHMOND WSO AP          2.3
ACTIVE   C  US:VA004101     40 37:18 077:18(30-89) HOPEWELL                11.7
REGULAR1 C  US:VA000327    220 37:45 077:29(48-89) ASHLAND                 21.2
REGULAR2 C  US:VA008829     50 37:45 077:03(32-89) WALKERTON 2 NW          25.0
REGULAR3 C  US:VA009025     20 37:31 076:50(54-89) WEST POINT 2 SW         27.7
*********************************************************************
* GPS SITE:  1/531002      N46:19:00 W118:00:00 ELEV: 1557, 1984
*********************************************************************
FIRST O. F  US:WA008928   1170 46:06 118:17(49-89) WALLA WALLA FAA AP      20.2
ACTIVE   C  US:WA002030   1560 46:19 118:00(31-89) DAYTON 1 WSW            0.0
REGULAR1 C  US:WA006610   1810 46:28 117:37(48-89) POMEROY                 21.0
REGULAR2 C  US:OR008985   2400 46:00 118:03(48-89) WALLA WALLA 13 ESE      22.0
REGULAR3 F  US:WA008931    950 46:02 118:20(48-87) WALLA WALLA WSO CI       25.3
```

```
**********************************************************************
* GPS SITE: 6B/531005      N47:07:00 W118:22:00 ELEV: 1830, 1973
**********************************************************************
FIRST O. F  US:WA007938   2360 47:38 117:32( 1-89) SPOKANE WSO AP          52.9  REJECTED
ACTIVE   C  US:WA007059   1830 47:07 118:22(48-89) RITZVILLE 1 SSE         0.0
REGULAR1 C  US:WA004679   1630 47:00 118:35(31-89) LIND 3 NE              13.0
REGULAR2 C  US:WA006039   1540 47:20 118:41(48-89) ODESSA                 21.1
REGULAR3 C  US:WA003515   2260 47:29 118:11(61-89) HARRINGTON 4 ENE        26.7
**********************************************************************
* GPS SITE:  1/531006      N48:00:00 W119:53:00 ELEV:  820, 1983
**********************************************************************
FIRST O. F  US:WA009082   1230 47:24 120:12(59-89) WENATCHEE FAA AP        44.0  REJECTED
ACTIVE   C  US:WA005326   1170 48:06 120:01(70-89) METHOW 2 S              9.3
REGULAR1 C  US:WA001400    820 48:00 119:39(49-89) CHIEF JOSEPH DAM        10.8
REGULAR2 C  US:WA001350   1120 47:50 120:02(58-89) CHELAN                 13.4
REGULAR3 C  US:WA009012   2620 47:39 120:04(31-89) WATERVILLE             25.6  REJECTED
**********************************************************************
* GPS SITE:  1/531007      N46:06:00 W119:45:00 ELEV:  903, 1984
**********************************************************************
FIRST O. F  US:WA009465   1060 46:34 120:32(46-89) YAKIMA WSO AP          49.4  REJECTED
ACTIVE   C  US:WA006768    900 46:15 119:45(31-89) PROSSER 4 NE            10.4
REGULAR1 C  US:OR000858    300 45:50 119:42(71-89) BOARDMAN                18.6
REGULAR2 C  US:WA008207    750 46:19 120:00(48-89) SUNNYSIDE               19.2
REGULAR3 C  US:WA005231    360 45:57 119:18(54-89) MC NARY DAM             24.0
**********************************************************************
* GPS SITE:  1/531008      N47:38:00 W117:32:00 ELEV: 2356, 1979
**********************************************************************
FIRST O. F  US:WA007938   2360 47:38 117:32( 1-89) SPOKANE WSO AP           0.0
ACTIVE   C  US:WA002007   2440 47:39 118:08(48-89) DAVENPORT              28.0
REGULAR1 C  US:WA009058   2490 47:54 118:00(48-89) WELLPINIT              28.5
REGULAR2 C  US:WA007180   2400 47:14 117:22(48-89) ROSALIA                28.7
REGULAR3 C  US:WA003515   2260 47:29 118:11(61-89) HARRINGTON 4 ENE        32.1  REJECTED
**********************************************************************
* GPS SITE:  1/531501      N47:35:44 W119:36:20 ELEV: 2622, 1982
**********************************************************************
FIRST O. F  US:WA009465   1060 46:34 120:32(46-89) YAKIMA WSO AP          83.4
ACTIVE   C  US:WA002614   1260 47:19 119:31(49-89) EPHRATA FAA AP         19.7
REGULAR1 C  US:WA009012   2620 47:39 120:04(31-89) WATERVILLE             21.8
REGULAR2 C  US:WA003529   1910 47:41 119:06(48-89) HARTLINE               24.3
REGULAR3 C  US:WA001350   1120 47:50 120:02(58-89) CHELAN                 25.8
**********************************************************************
* GPS SITE:  1/531801      N45:38:00 W122:13:00 ELEV:  440, 1973
**********************************************************************
FIRST O. F  US:OR006751     20 45:36 122:36(41-89) PORTLAND WSFO AP       18.7
ACTIVE   C  US:WA007696    440 45:38 122:13(65-89) SKAMANIA FISH HATCHER   0.0
REGULAR1 C  US:OR008634     30 45:34 122:24(48-89) TROUTDALE SUBSTATION   10.0
REGULAR2 C  US:OR000897     60 45:38 121:57(48-89) BONNEVILLE DAM         12.9
REGULAR3 C  US:OR003770    750 45:27 122:09( 4-89) HEADWORKS PTLND WTR B  13.1
**********************************************************************
* GPS SITE:  3/533011      N48:48:00 W122:32:00 ELEV:  149, 1977
**********************************************************************
FIRST O. F  US:WA000574    150 48:48 122:32(49-89) BELLINGHAM FAA AP      0.0
ACTIVE   C  US:WA001484     60 48:58 122:20(31-89) CLEARBROOK             14.7
REGULAR1 C  US:WA000564    140 48:47 122:29(48-85) BELLINGHAM 2 N         2.6
REGULAR2 C  CA:1100241     197 49:02 122:29(80-89) ALDERGROVE 2           16.3
REGULAR3 C  US:WA000729     60 49:00 122:45(48-89) BLAINE                 17.0
**********************************************************************
* GPS SITE:  3/533013      N47:38:00 W117:32:00 ELEV: 2356, 1971
**********************************************************************
FIRST O. F  US:WA007938   2360 47:38 117:32( 1-89) SPOKANE WSO AP           0.0
ACTIVE   C  US:WA002007   2440 47:39 118:08(48-89) DAVENPORT              28.0
REGULAR1 C  US:WA009058   2490 47:54 118:00(48-89) WELLPINIT              28.5
REGULAR2 C  US:WA007180   2400 47:14 117:22(48-89) ROSALIA                28.7
REGULAR3 C  US:WA003515   2260 47:29 118:11(61-89) HARRINGTON 4 ENE        32.1  REJECTED
**********************************************************************
* GPS SITE:  3/533014      N46:16:54 W119:05:03 ELEV:  432, 1985
**********************************************************************
FIRST O. F  US:WA008928   1170 46:06 118:17(49-89) WALLA WALLA FAA AP      40.3  REJECTED
ACTIVE   C  US:WA004154    390 46:13 119:06(48-89) KENNEWICK               4.6
REGULAR1 C  US:WA002542    700 46:24 119:10(74-89) ELTOPIA 8 WSW           9.1
REGULAR2 C  US:WA007015    370 46:19 119:16(48-89) RICHLAND                9.1
REGULAR3 C  US:WA003883    370 46:15 118:52(57-89) ICE HARBOR DAM         10.6
```

```
**********************************************************************
* GPS SITE:  3/533019      N46:13:00 W119:13:00 ELEV:  390, 1986
**********************************************************************
FIRST O. F  US:OR006546   1490 45:41 118:51(28-89) PENDLETON WSO AP          40.8  REJECTED
ACTIVE   C  US:WA004154    390 46:13 119:06(48-89) KENNEWICK                  5.6
REGULAR1 C  US:WA007015    370 46:19 119:16(48-89) RICHLAND                   7.3
REGULAR2 C  US:WA002542    700 46:24 119:10(74-89) ELTOPIA 8 WSW             12.9
REGULAR3 C  US:WA003883    370 46:15 118:52(57-89) ICE HARBOR DAM            16.9
**********************************************************************
* GPS SITE:  3/533812      N47:39:00 W122:18:00 ELEV:  350, 1965
**********************************************************************
FIRST O. F  US:WA007473    450 47:27 122:18(31-89) SEATTLE TAC WSCMO AP      13.8
ACTIVE   C  US:WA007458     20 47:39 122:18(72-89) SEATTLE STATE EMSU         0.0
REGULAR1 C  US:WA007478    100 47:39 122:17(48-83) SEATTLE U OF WA           0.8
REGULAR2 C  US:WA007459    370 47:44 122:20(61-86) SEATTLE JACKSON PARK      6.0
REGULAR3 C  US:WA004169     30 47:24 122:14(48-89) KENT                     17.5
**********************************************************************
* GPS SITE:  3/533813      N45:38:00 W122:31:00 ELEV:  440, 1967
**********************************************************************
FIRST O. F  US:OR006751     20 45:36 122:36(41-89) PORTLAND WSFO AP          4.6
ACTIVE   C  US:WA008773    210 45:41 122:39( 1-89) VANCOUVER 4 NNE           7.3
REGULAR1 F  US:OR008634     30 45:34 122:24(48-89) TROUTDALE SUBSTATION      7.3
REGULAR2 C  US:WA000482    280 45:46 122:32(48-89) BATTLE GROUND             9.2
REGULAR3 C  US:OR006749    160 45:31 122:41(73-89) PORTLAND KGW-TV          11.4
**********************************************************************
* GPS SITE: 6A/536020      N47:30:00 W120:21:00 ELEV:  800, 1964
**********************************************************************
FIRST O. F  US:WA008009   3960 47:17 121:20(44-89) STAMPEDE PASS WSCMO A    48.4  REJECTED
ACTIVE   C  US:WA009079    800 47:26 120:21(50-89) WENATCHEE EXP STN         4.6
REGULAR1 C  US:WA009074    640 47:25 120:19(31-89) WENATCHEE                 6.0
REGULAR2 C  US:WA009082   1230 47:24 120:12(59-89) WENATCHEE FAA AP         9.8
REGULAR3 C  US:WA004572   1130 47:34 120:40(48-89) LEAVENWORTH 3 S          15.5
**********************************************************************
* GPS SITE: 6A/536048      N47:51:00 W122:03:00 ELEV:  120, 1965
**********************************************************************
FIRST O. F  US:WA007473    450 47:27 122:18(31-89) SEATTLE TAC WSCMO AP      30.0
ACTIVE   C  US:WA005525    120 47:51 121:59(48-89) MONROE                     3.1
REGULAR1 C  US:WA002675     60 47:59 122:11(48-89) EVERETT                   11.1
REGULAR2 C  US:WA007459    370 47:44 122:20(61-86) SEATTLE JACKSON PARK     15.4
REGULAR3 C  US:WA008034    170 47:52 121:43(48-89) STARTUP 1 E              15.5
**********************************************************************
* GPS SITE: 6A/536049      N47:24:00 W122:14:00 ELEV:   30, 1965
**********************************************************************
FIRST O. F  US:WA007473    450 47:27 122:18(31-89) SEATTLE TAC WSCMO AP      4.7
ACTIVE   C  US:WA004169     30 47:24 122:14(48-89) KENT                      0.0
REGULAR1 C  US:WA004486    540 47:23 121:58(31-89) LANDSBURG                12.5
REGULAR2 F  US:WA008286    270 47:15 122:26(48-81) TACOMA CITY HALL         14.0
REGULAR3 C  US:WA006803     50 47:12 122:20(31-89) PUYALLUP 2 W EXP STN     14.6
**********************************************************************
* GPS SITE: 6A/536056      N46:34:00 W117:06:00 ELEV: 2545, 1969
**********************************************************************
FIRST O. F  US:ID005241   1440 46:23 117:01(48-89) LEWISTON WSO AP          13.3
ACTIVE   C  US:ID006152   2660 46:44 116:58( 1-89) MOSCOW U OF IDAHO        13.1
REGULAR1 C  US:WA006789   2550 46:46 117:12(40-89) PULLMAN 2 NW             14.6
REGULAR2 C  US:WA006610   1810 46:28 117:37(48-89) POMEROY                  25.5
REGULAR3 C  US:WA001586   1960 46:53 117:23(48-89) COLFAX 1 NW              25.7
**********************************************************************
* GPS SITE: 6A/537322      N46:46:00 W117:12:00 ELEV: 2545, 1973
**********************************************************************
FIRST O. F  US:ID005241   1440 46:23 117:01(48-89) LEWISTON WSO AP          27.9
ACTIVE   C  US:WA006789   2550 46:46 117:12(40-89) PULLMAN 2 NW             0.0
REGULAR1 C  US:ID006152   2660 46:44 116:58( 1-89) MOSCOW U OF IDAHO        11.3
REGULAR2 C  US:WA001586   1960 46:53 117:23(48-89) COLFAX 1 NW              11.8
REGULAR3 C  US:ID007301   2600 46:58 116:53(15-89) POTLATCH 3 NNE           20.4
**********************************************************************
* GPS SITE:  3/537409      N46:26:00 W120:17:00 ELEV: 1166, 1988
**********************************************************************
FIRST O. F  US:WA009465   1060 46:34 120:32(46-89) YAKIMA WSO AP            15.0
ACTIVE   C  US:WA008959    840 46:26 120:25(48-89) WAPATO                    6.4
REGULAR1 C  US:WA005688   1550 46:31 120:10(48-89) MOXEE CITY 10 E           8.0
REGULAR2 C  US:WA008207    750 46:19 120:00(48-89) SUNNYSIDE                15.7
REGULAR3 C  US:WA006747    460 46:39 119:54(56-89) PRIEST RAPIDS DAM        23.6
```

```
*********************************************************************
* GPS SITE:  2/541640      N38:17:00 W081:45:55 ELEV:  808, 1983
*********************************************************************
FIRST O. F  US:WV001570   1020 38:22 081:36(48-89) CHARLESTON WSFO AP       10.7
ACTIVE   C  US:WV005563    680 38:03 081:49(48-89) MADISON                  16.4
REGULAR1 C  US:WV003846    640 38:17 082:06(48-89) HAMLIN                   18.2
REGULAR2 C  US:WV009683    570 38:32 081:55(48-89) WINFIELD LOCKS           19.1
REGULAR3 C  US:WV005365    620 38:12 081:22(36-89) LONDON LOCKS             22.4
*********************************************************************
* GPS SITE:  4/544003      N38:09:06 W081:50:30 ELEV:  675, 1982
*********************************************************************
FIRST O. F  US:WV001570   1020 38:22 081:36(48-89) CHARLESTON WSFO AP       19.9
ACTIVE   C  US:WV005563    680 38:03 081:49(48-89) MADISON                   7.0
REGULAR1 C  US:WV003846    640 38:17 082:06(48-89) HAMLIN                   16.8
REGULAR2 C  US:WV005353    640 37:52 081:59(48-89) LOGAN                    21.0
REGULAR3 C  US:WV005365    620 38:12 081:22(36-89) LONDON LOCKS             26.1
*********************************************************************
* GPS SITE:  4/544004      N38:01:25 W081:21:25 ELEV:  960, 1981
*********************************************************************
FIRST O. F  US:WV000582   2500 37:47 081:07(63-89) BECKLEY WSO AP           20.5
ACTIVE   C  US:WV006591   2040 37:58 081:09(48-89) OAK HILL                11.4
REGULAR1 C  US:WV005365    620 38:12 081:22(36-89) LONDON LOCKS             12.7
REGULAR2 C  US:WV000580   2330 37:47 081:11(48-89) BECKLEY V A HOSPITAL     18.5
REGULAR3 C  US:WV004956   1160 37:44 081:35(63-89) KOPPERSTON               23.3
*********************************************************************
* GPS SITE:  5/545007      N39:17:06 W080:25:10 ELEV: 1225, 1977
*********************************************************************
FIRST O. F  US:WV006202   1240 39:39 079:55(48-89) MORGANTOWN FAA AP        37.2
ACTIVE   C  US:WV001677    950 39:16 080:21(26-89) CLARKSBURG 1              4.2
REGULAR1 C  US:WV009436    930 39:04 080:28(48-89) WESTON                   15.1
REGULAR2 C  US:WV005626   1100 39:32 080:30(48-89) MANNINGTON 7 WNW         17.7
REGULAR3 C  US:WV009458    780 39:18 080:46(71-89) WEST UNION 2             18.3
*********************************************************************
* GPS SITE: 7A/547008      N38:25:35 W081:49:00 ELEV:  661, 1962
*********************************************************************
FIRST O. F  US:WV001570   1020 38:22 081:36(48-89) CHARLESTON WSFO AP       17.9
ACTIVE   C  US:WV009683    570 38:32 081:55(48-89) WINFIELD LOCKS            4.7
REGULAR1 C  US:WV004200    570 38:41 082:11(48-89) HOGSETT GALLIPOLIS DA    21.0
REGULAR2 C  US:WV003846    640 38:17 082:06(48-89) HAMLIN                   23.4
REGULAR3 C  US:WV007552    610 38:53 081:41(48-89) RIPLEY 4 NNE             24.4
*********************************************************************
* GPS SITE:  3/553008      N43:00:00 W087:00:00 ELEV:  803, 1975
*********************************************************************
FIRST O. F  US:MI005712    630 43:10 086:14(48-89) MUSKEGON WSO AP          40.4
ACTIVE   C  US:MI003290    620 43:04 086:13(48-89) GRAND HAVEN FIRE DEPT    39.9
REGULAR1 C  US:MI005567    650 43:28 086:25(50-89) MONTAGUE 4 NW            43.6
REGULAR2 C  US:WI006922    600 42:42 087:46(48-89) RACINE                   44.1
REGULAR3 F  US:WI005479    670 42:57 087:54(48-89) MILWAUKEE WSO AP         45.7
*********************************************************************
* GPS SITE:  3/553009      N43:45:00 W087:52:00 ELEV:  750, 1984
*********************************************************************
FIRST O. F  US:WI003269    680 44:29 088:08(48-89) GREEN BAY WSO AP         52.0
ACTIVE   C  US:WI006678    870 43:45 087:59(10-89) PLYMOUTH                  5.3
REGULAR1 C  US:WI007725    650 43:45 087:43(48-89) SHEBOYGAN                 8.1
REGULAR2 C  US:WI001568    840 44:02 088:09(48-89) CHILTON                  23.6
REGULAR3 C  US:WI006764    600 43:23 087:52(48-89) PORT WASHINGTON          25.6
*********************************************************************
* GPS SITE:  3/553010      N43:45:00 W087:47:00 ELEV:  690, 1978
*********************************************************************
FIRST O. F  US:WI003269    680 44:29 088:08(48-89) GREEN BAY WSO AP         53.2
ACTIVE   C  US:WI007725    650 43:45 087:43(48-89) SHEBOYGAN                 3.9
REGULAR1 C  US:WI006678    870 43:45 087:59(10-89) PLYMOUTH                  9.5
REGULAR2 C  US:WI005017    660 44:06 087:41(48-89) MANITOWOC                24.7
REGULAR3 C  US:WI006764    600 43:23 087:52(48-89) PORT WASHINGTON          25.7
*********************************************************************
* GPS SITE:  3/553012      N44:54:00 W092:44:00 ELEV:  948, 1977
*********************************************************************
FIRST O. F  US:MN005435    830 44:53 093:13( 1-89) MINN-ST PAUL WSO AP      23.7
ACTIVE   C  US:WI007226    900 44:52 092:37(48-89) RIVER FALLS               6.2
REGULAR1 C  US:MN008037    710 45:02 092:47(48-89) STILLWATER 1 SE           9.5
REGULAR2 C  US:WI002556   1030 44:44 092:28(48-89) ELLSWORTH 1 E            17.4
REGULAR3 C  US:MN007377    920 44:58 093:05(56-89) SAINT PAUL                17.7
```

```
**********************************************************************
* GPS SITE:  3/553014      N42:38:00 W088:38:00 ELEV:  947, 1976
**********************************************************************
FIRST O. F  US:WI005479    670 42:57 087:54(48-89) MILWAUKEE WSO AP        43.2
ACTIVE   C  US:WI004457    880 42:36 088:26(48-89) LAKE GENEVA             10.4
REGULAR1 C  US:WI009190    800 42:51 088:44(48-89) WHITEWATER              15.8
REGULAR2 C  US:WI001205    760 42:40 088:16(48-89) BURLINGTON              18.8
REGULAR3 C  US:WI003979    760 42:40 089:01(48-87) JANESVILLE              19.6
**********************************************************************
* GPS SITE:  3/553015      N43:42:53 W089:28:30 ELEV:  827, 1984
**********************************************************************
FIRST O. F  US:WI004961    860 43:08 089:20(48-89) MADISON WSO AP          40.8
ACTIVE   C  US:WI005581    780 43:47 089:18(54-89) MONTELLO                 9.9
REGULAR1 C  US:WI006718    800 43:31 089:26(48-89) PORTAGE                 13.8
REGULAR2 C  US:WI001970    860 43:39 089:12(48-89) DALTON                  14.5
REGULAR3 C  US:WI009319    840 43:37 089:47(48-89) WISCONSIN DELLS         16.8
**********************************************************************
* GPS SITE:  3/553016      N44:00:48 W089:30:29 ELEV: 1000, 1986
**********************************************************************
FIRST O. F  US:WI004961    860 43:08 089:20(48-89) MADISON WSO AP          61.4
ACTIVE   C  US:WI003405   1080 44:07 089:32( 3-89) HANCOCK EXP FARM         7.2
REGULAR1 C  US:WI005581    780 43:47 089:18(54-89) MONTELLO                19.0
REGULAR2 C  US:WI005786    930 44:02 090:05(53-89) NECEDAH                 28.6
REGULAR3 C  US:WI001970    860 43:39 089:12(48-89) DALTON                  29.4
**********************************************************************
* GPS SITE:  3/553019      N46:03:10 W091:26:27 ELEV: 1227, 1976
**********************************************************************
FIRST O. F  US:MN002248   1430 46:50 092:11(48-89) DULUTH WSO AP          64.5
ACTIVE   C  US:WI001847   1300 45:52 091:27(48-89) COUDERAY 7 W           12.9
REGULAR1 C  US:WI002240   1340 46:20 091:16(48-89) DRUMMOND               21.1
REGULAR2 C  US:WI009304   1310 45:53 091:04(48-89) WINTER 6 NNW           21.5
REGULAR3 C  US:WI003186   1040 46:15 091:48(51-89) GORDON                 21.9
**********************************************************************
* GPS SITE:  5/555037      N45:20:10 W091:41:24 ELEV: 1064, 1973
**********************************************************************
FIRST O. F  US:WI002428    890 44:52 091:29(49-89) EAU CLAIRE FAA AP       34.0
ACTIVE   C  US:WI007132   1130 45:30 091:44(48-89) RICE LAKE              11.5
REGULAR1 C  US:WI007174    960 45:13 091:53(48-89) RIDGELAND 1 NNE         12.5
REGULAR2 C  US:WI009144   1200 45:25 091:23(48-89) WEYERHAUSER            15.9
REGULAR3 C  US:WI000904    980 45:06 091:29(48-89) BLOOMER                 19.2
**********************************************************************
* GPS SITE:  5/555040      N43:48:00 W087:46:00 ELEV:  690, 1980
**********************************************************************
FIRST O. F  US:WI003269    680 44:29 088:08(48-89) GREEN BAY WSO AP        50.6
ACTIVE   C  US:WI007725    650 43:45 087:43(48-89) SHEBOYGAN                4.3
REGULAR1 C  US:WI006678    870 43:45 087:59(10-89) PLYMOUTH                11.4
REGULAR2 C  US:WI005017    660 44:06 087:41(48-89) MANITOWOC               21.1
REGULAR3 C  US:WI001568    840 44:02 088:09(48-89) CHILTON                 25.0
**********************************************************************
* GPS SITE:  3/556352      N43:00:35 W089:50:32 ELEV: 1238, 1988
**********************************************************************
FIRST O. F  US:WI004961    860 43:08 089:20(48-89) MADISON WSO AP          27.1
ACTIVE   C  US:WI002173   1110 42:58 090:07(48-89) DODGEVILLE 1 NE         14.2
REGULAR1 C  US:WI001416    910 43:03 089:28(59-89) CHARMANY FARM           19.2
REGULAR2 C  US:WI000273    870 43:02 089:26(71-89) ARBORETUM U OF WISC     20.7
REGULAR3 C  US:WI006838    780 43:19 089:44(47-89) PRAIRIE DU SAC 2 N      21.9
**********************************************************************
* GPS SITE:  3/556353      N43:00:00 W089:58:51 ELEV: 1147, 1988
**********************************************************************
FIRST O. F  US:WI004961    860 43:08 089:20(48-89) MADISON WSO AP          33.3
ACTIVE   C  US:WI002173   1110 42:58 090:07(48-89) DODGEVILLE 1 NE          7.9
REGULAR1 C  US:WI002001    930 42:41 090:07( 1-89) DARLINGTON              23.2
REGULAR2 C  US:WI006838    780 43:19 089:44(47-89) PRAIRIE DU SAC 2 N      24.8
REGULAR3 C  US:WI001416    910 43:03 089:28(59-89) CHARMANY FARM           25.5
**********************************************************************
* GPS SITE:  3/556354      N43:00:35 W089:55:48 ELEV: 1192, 1988
**********************************************************************
FIRST O. F  US:WI004961    860 43:08 089:20(48-89) MADISON WSO AP          31.3
ACTIVE   C  US:WI002173   1110 42:58 090:07(48-89) DODGEVILLE 1 NE          9.9
REGULAR1 C  US:WI006838    780 43:19 089:44(47-89) PRAIRIE DU SAC 2 N      23.4
REGULAR2 C  US:WI001416    910 43:03 089:28(59-89) CHARMANY FARM           23.6
REGULAR3 C  US:WI002001    930 42:41 090:07( 1-89) DARLINGTON              24.4
```

```
*********************************************************************
* GPS SITE:  3/556355      N43:00:35 W089:48:52 ELEV: 1244, 1988
*********************************************************************
FIRST O. F  US:WI004961    860 43:08 089:20(48-89) MADISON WSO AP          25.8
ACTIVE   C  US:WI002173   1110 42:58 090:07(48-89) DODGEVILLE 1 NE        15.6
REGULAR1 C  US:WI001416    910 43:03 089:28(59-89) CHARMANY FARM           17.8
REGULAR2 C  US:WI000273    870 43:02 089:26(71-89) ARBORETUM U OF WISC     19.3
REGULAR3 C  US:WI006838    780 43:19 089:44(47-89) PRAIRIE DU SAC 2 N      21.6
*********************************************************************
* GPS SITE:  1/561007      N44:30:02 W108:55:24 ELEV: 5204, 1980
*********************************************************************
FIRST O. F  US:WY009785   4170 43:58 107:58(60-89) WORLAND FAA AP         60.1  REJECTED
ACTIVE   C  US:WY001850   5250 44:24 108:54(49-89) CODY 12 SE             7.0
REGULAR1 C  US:WY001840   4990 44:33 109:04(15-89) CODY                   7.8
REGULAR2 C  US:WY001175   5160 44:30 109:11(48-89) BUFFALO BILL DAM       12.8  REJECTED
REGULAR3 C  US:WY004411   4790 44:42 108:57(49-89) HEART MOUNTAIN         13.8
*********************************************************************
* GPS SITE:  2/562015      N41:35:19 W104:52:10 ELEV: 5814, 1977
*********************************************************************
FIRST O. F  US:WY001675   6120 41:09 104:49(15-89) CHEYENNE WSFO AP       30.4
ACTIVE   C  US:WY001730   5280 41:45 104:49(15-89) CHUGWATER              11.5
REGULAR1 C  US:WY007200   4980 41:38 104:29(48-89) PHILLIPS               20.2
REGULAR2 C  US:WY008808   6100 41:46 105:23(64-89) SYBILLE RESEARCH UNIT  29.3
REGULAR3 C  US:WY000270   6010 41:09 104:39(48-89) ARCHER                 32.4
*********************************************************************
* GPS SITE:  2/562017      N43:38:26 W105:42:18 ELEV: 5210, 1982
*********************************************************************
FIRST O. F  US:WY001570   5340 42:55 106:28(48-89) CASPER WSO AP          63.0  REJECTED
ACTIVE   C  US:WY006195   4820 43:24 106:17(48-89) MIDWEST                33.4
REGULAR1 C  US:WY002410   4440 44:11 105:54(62-89) DEAD HORSE CREEK       38.7
REGULAR2 C  US:WY007810   4500 43:36 104:54(48-89) ROCHELLE 3 E           40.4
REGULAR3 C  US:WY002725   4420 43:25 104:57(48-89) DULL CENTER 1 SE       40.9
*********************************************************************
* GPS SITE:  2/562018      N43:00:17 W106:43:20 ELEV: 5545, 1984
*********************************************************************
FIRST O. F  US:WY001570   5340 42:55 106:28(48-89) CASPER WSO AP          14.3
ACTIVE   C  US:WY007376   5960 43:01 107:00(64-89) POWDER RIVER 2 SW      14.1
REGULAR1 C  US:WY000552   6010 42:38 106:23(69-89) BATES CREEK 2          30.9  REJECTED
REGULAR2 C  US:WY006195   4820 43:24 106:17(48-89) MIDWEST                35.1
REGULAR3 C  US:WY007105   5930 42:28 106:51(48-89) PATHFINDER DAM         37.7
*********************************************************************
* GPS SITE:  2/562019      N44:10:00 W105:26:41 ELEV: 4577, 1985
*********************************************************************
FIRST O. F  US:WY008155   3940 44:46 106:58(48-89) SHERIDAN WSO AP         85.8  REJECTED
ACTIVE   C  US:WY003855   4640 44:16 105:19(25-89) GILLETTE 9 ESE          9.4
REGULAR1 C  US:WY002580   4310 44:07 105:07(48-89) DILLINGER              16.6
REGULAR2 C  US:WY002410   4440 44:11 105:54(62-89) DEAD HORSE CREEK       22.6
REGULAR3 C  US:WY006395   4210 44:16 104:57(48-89) MOORCROFT              25.5
*********************************************************************
* GPS SITE:  2/562020      N44:56:47 W107:11:12 ELEV: 4022, 1984
*********************************************************************
FIRST O. F  US:WY008155   3940 44:46 106:58(48-89) SHERIDAN WSO AP         16.4
ACTIVE   C  US:MT009175   3770 45:06 107:26(48-89) WYOLA                  16.1
REGULAR1 C  US:WY008160   3750 44:50 106:50(20-89) SHERIDAN FIELD STN     19.0
REGULAR2 C  US:WY001220   8040 44:46 107:32(60-89) BURGESS JUNCTION       21.0  REJECTED
REGULAR3 C  US:WY008124   4280 44:32 107:46(58-89) SHELL                  40.3  REJECTED
*********************************************************************
* GPS SITE:  2/562037      N41:39:26 W107:45:00 ELEV: 7085, 1987
*********************************************************************
FIRST O. F  US:WY007533   6740 41:48 107:12(51-89) RAWLINS FAA AP         30.1
ACTIVE   C  US:WY009459   6800 41:41 107:59(48-89) WAMSUTTER 1 N          12.2
REGULAR1 C  US:WY000761   6720 41:35 108:31(62-89) BITTER CREEK 4 NE      40.0  REJECTED
REGULAR2 C  US:WY000484   6240 41:02 107:39(79-89) BAGGS                  43.4  REJECTED
REGULAR3 C  US:WY007990   6790 41:27 106:49(48-89) SARATOGA               50.4  REJECTED
*********************************************************************
* GPS SITE:  3/563027      N41:34:54 W109:15:08 ELEV: 6359, 1980
*********************************************************************
FIRST O. F  US:WY007845   6740 41:36 109:04(48-89) ROCK SPRINGS FAA AP     9.7
ACTIVE   C  US:WY004065   6090 41:32 109:28(15-89) GREEN RIVER            11.6
REGULAR1 C  US:WY000761   6720 41:35 108:31(62-89) BITTER CREEK 4 NE      38.1
REGULAR2 C  US:WY001736   7080 41:24 110:05(55-89) CHURCH BUTTES GAS PLA  44.9  REJECTED
REGULAR3 C  US:UT002864   6270 40:56 109:25(57-89) FLAMING GORGE          45.6  REJECTED
```

```
**********************************************************************
* GPS SITE: 6A/566029      N42:38:59 W110:55:17 ELEV: 6404, 1976
**********************************************************************
FIRST O. F  US:ID005559   4470 42:10 112:17(48-89) MALAD CITY          77.1  REJECTED
ACTIVE   C  US:WY000027   6210 42:44 110:56(57-89) AFTON               5.8
REGULAR1 C  US:WY000603   6438 42:52 110:55(75-89) BEDFORD 3 SE        15.0  REJECTED
REGULAR2 C  US:WY000915   6110 42:15 111:02( 2-89) BORDER 3 N          28.2  REJECTED
REGULAR3 C  US:ID006053   5960 42:19 111:18(31-89) MONTPELIER R S      30.0
**********************************************************************
* GPS SITE: 6A/566031      N43:04:39 W108:31:15 ELEV: 5472, 1977
**********************************************************************
FIRST O. F  US:WY005390   5370 42:49 108:44(48-89) LANDER WSO AP       21.0
ACTIVE   C  US:WY007760   4950 43:01 108:23(18-89) RIVERTON            8.1
REGULAR1 C  US:WY007115   5440 43:15 108:41(48-89) PAVILLION           14.5
REGULAR2 C  US:WY002595   5580 43:14 108:56(48-89) DIVERSION DAM       23.4
REGULAR3 C  US:WY001000   4640 43:25 108:11(48-89) BOYSEN DAM          29.0
**********************************************************************
* GPS SITE: 6A/566032      N43:29:00 W110:49:30 ELEV: 6165, 1976
**********************************************************************
FIRST O. F  US:ID004457   4730 43:31 112:04(48-89) IDAHO FALLS FAA AP  62.3  REJECTED
ACTIVE   C  US:WY004910   6230 43:29 110:46(48-89) JACKSON              2.9
REGULAR1 C  US:WY006428   6470 43:40 110:43(58-89) MOOSE                13.8
REGULAR2 C  US:ID006764   5390 43:21 111:14(47-89) PALISADES           22.5  REJECTED
REGULAR3 C  US:ID002676   6120 43:44 111:07(30-89) DRIGGS               22.6  REJECTED
**********************************************************************
* GPS SITE:  2/567772      N43:40:17 W108:16:55 ELEV: 4677, 1986
**********************************************************************
FIRST O. F  US:WY009785   4170 43:58 107:58(60-89) WORLAND FAA AP       25.8
ACTIVE   C  US:WY008880   4400 43:39 108:13(65-89) THERMOPOLIS 2         3.6
REGULAR1 C  US:WY001000   4640 43:25 108:11(48-89) BOYSEN DAM           18.3  REJECTED
REGULAR2 C  US:WY008888   5700 43:43 108:41(51-89) THERMOPOLIS 25 WNW   20.3
REGULAR3 C  US:WY004036   5580 43:57 108:39(49-89) GRASS CREEK          26.6
**********************************************************************
* GPS SITE:  2/567773      N42:40:35 W106:29:30 ELEV: 5538, 1988
**********************************************************************
FIRST O. F  US:WY001570   5340 42:55 106:28(48-89) CASPER WSO AP        16.6
ACTIVE   C  US:WY000552   6010 42:38 106:23(69-89) BATES CREEK 2         6.3
REGULAR1 C  US:WY007105   5930 42:28 106:51(48-89) PATHFINDER DAM       23.3
REGULAR2 C  US:WY008192   7170 42:21 106:10(78-89) SHIRLEY BASIN STN    28.0
REGULAR3 C  US:WY007376   5960 43:01 107:00(64-89) POWDER RIVER 2 SW     34.9  REJECTED
**********************************************************************
* GPS SITE:  1/567775      N42:01:05 W109:40:33 ELEV: 6433, 1985
**********************************************************************
FIRST O. F  US:WY007845   6740 41:36 109:04(48-89) ROCK SPRINGS FAA AP   42.7
ACTIVE   C  US:WY003396   6480 41:59 110:04(63-89) FONTENELLE DAM       20.2
REGULAR1 C  US:WY005252   6600 42:16 110:12(58-89) LA BARGE            31.9
REGULAR2 C  US:WY004065   6090 41:32 109:28(15-89) GREEN RIVER         35.2
REGULAR3 C  US:WY001736   7080 41:24 110:05(55-89) CHURCH BUTTES GAS PLA  47.6  REJECTED
**********************************************************************
* GPS SITE:  2/721003      N18:29:00 W066:48:00 ELEV:   29, 1987
**********************************************************************
FIRST O. F  US:PR008812     10 18:26 066:00(56-89) SAN JUAN WSFO        52.6
ACTIVE   C  US:PR000410     10 18:27 066:41(31-89) ARECIBO 3 ESE         8.0
REGULAR1 C  US:PR000426   1060 18:21 066:46(80-89) ARECIBO ABSERVATORY   9.5
REGULAR2 C  US:PR003431    200 18:20 066:40(37-89) DOS BOCAS            13.6
REGULAR3 C  US:PR009608    520 18:16 066:41(31-89) UTUADO               16.8
**********************************************************************
* GPS SITE:  3/723008      N18:20:00 W066:03:00 ELEV:  508, 1973
**********************************************************************
FIRST O. F  US:PR008812     10 18:26 066:00(56-89) SAN JUAN WSFO         7.6
ACTIVE   C  US:PR009521    140 18:20 066:01(57-89) TRUJILLO ALTO 2 SSW   2.2
REGULAR1 C  US:PR008306     90 18:24 066:03(59-89) RIO PIEDRAS EXP STN   4.6
REGULAR2 C  US:PR004276    160 18:15 066:00(56-89) GURABO SUBSTATION     6.6
REGULAR3 C  US:PR005064    230 18:15 065:55(31-89) JUNCOS               10.5
**********************************************************************
* GPS SITE:  3/724121      N18:26:40 W066:41:30 ELEV:   50, 1986
**********************************************************************
FIRST O. F  US:PR008812     10 18:26 066:00(56-89) SAN JUAN WSFO        43.7
ACTIVE   C  US:PR000410     10 18:27 066:41(31-89) ARECIBO 3 ESE         1.6
REGULAR1 C  US:PR003431    200 18:20 066:40(37-89) DOS BOCAS             6.9
REGULAR2 C  US:PR000426   1060 18:21 066:46(80-89) ARECIBO ABSERVATORY   8.7
REGULAR3 C  US:PR009608    520 18:16 066:41(31-89) UTUADO               11.6
```

```
*********************************************************************
* GPS SITE:  2/724122      N18:26:00 W066:41:00 ELEV:   45, 1973
*********************************************************************
FIRST O. F  US:PR008812     10 18:26 066:00(56-89) SAN JUAN WSFO          44.8
ACTIVE   C  US:PR000410     10 18:27 066:41(31-89) ARECIBO 3 ESE           1.2
REGULAR1 C  US:PR003431    200 18:20 066:40(37-89) DOS BOCAS               7.0
REGULAR2 C  US:PR000426   1060 18:21 066:46(80-89) ARECIBO ABSERVATORY     7.9
REGULAR3 C  US:PR009608    520 18:16 066:41(31-89) UTUADO                 11.5
*********************************************************************
* GPS SITE:  1/811803      N53:15:44 W110:40:12 ELEV: 2123, 1984
*********************************************************************
FIRST O. F  CA:3081680    1775 54:25 110:17(52-89) COLD LAKE A           81.3
ACTIVE   C  CA:3014995    2159 53:07 110:21(61-89) PARADISE VALLEY       16.6
REGULAR1 C  CA:3012515    2290 52:58 111:00(66-89) FABYAN                24.6
REGULAR2 C  CA:3013961    2180 53:19 110:04(82-89) LLOYDMINSTER A        25.2
REGULAR3 C  CA:3016932    2255 52:50 110:50(73-89) WAINWRIGHT HEATH      30.4
*********************************************************************
* GPS SITE:  1/811804      N53:12:05 W113:20:00 ELEV: 2301, 1982
*********************************************************************
FIRST O. F  CA:3012205    2346 53:18 113:35(59-89) EDMONTON INT'L A      12.4
ACTIVE   C  CA:3017286    2500 52:58 113:23(85-89) WETASKIWIN SOUTH      16.3
REGULAR1 C  CA:3012295    2276 53:25 113:33(64-86) ELLERSLIE             17.4
REGULAR2 C  CA:3011854    2436 53:26 113:07(85-89) COOKING LAKE          18.3
REGULAR3 C  CA:3012990    2520 52:57 113:11(75-89) GWYNNE                18.4
*********************************************************************
* GPS SITE:  1/811805      N50:40:33 W113:35:36 ELEV: 3379, 1980
*********************************************************************
FIRST O. F  CA:3031093    3533 51:07 114:01( 1-89) CALGARY INT'L A       35.6
ACTIVE   C  CA:3033138    3500 50:36 113:21(65-89) HERRONTON EAST        11.9
REGULAR1 C  CA:3036881    3441 50:24 113:15(74-89) VULCAN                24.3
REGULAR2 C  CA:3031524    3350 51:02 113:47(74-85) CHESTERMERE LAKE SOUT 26.1
REGULAR3 C  CA:3035340    3100 50:36 112:59(61-89) QUEENSTOWN            27.3
*********************************************************************
* GPS SITE:  2/812812      N51:38:33 W113:22:24 ELEV: 2975, 1984
*********************************************************************
FIRST O. F  CA:3025480    2968 52:11 113:54(38-89) RED DEER A            43.6
ACTIVE   C  CA:3026530    2803 51:47 113:12(54-89) TROCHU EQUITY         12.3
REGULAR1 C  CA:3022778    2700 51:39 113:05(79-89) GHOST PINE CREEK      12.5
REGULAR2 C  CA:3026540    2875 51:50 113:13(80-89) TROCHU TOWN           14.8
REGULAR3 C  CA:3022139    2258 51:27 112:42(74-89) DRUMHELLER CITY       31.9
*********************************************************************
* GPS SITE: 68/818529      N51:00:00 W114:58:22 ELEV: 4197, 1971
*********************************************************************
FIRST O. F  CA:3031093    3533 51:07 114:01( 1-89) CALGARY INT'L A       42.3
ACTIVE   C  CA:3053600    4564 51:02 115:02(39-89) KANANASKIS             3.5
REGULAR1 C  CA:3050779    4324 51:05 115:04(67-89) BOW VALLEY PROV PARK   7.1
REGULAR2 C  CA:3052270    4593 50:54 114:42(58-89) ELBOW RS              13.7
REGULAR3 C  CA:3052780    4649 51:18 114:56(58-89) GHOST RS              20.8
*********************************************************************
* GPS SITE:  1/821005      N49:43:00 W121:03:00 ELEV: 3133, 1986
*********************************************************************
FIRST O. F  CA:1126510    2298 49:28 120:31(36-89) PRINCETON A           29.5
ACTIVE   C  CA:1121090    3189 49:49 120:52(86-89) BROOKMERE             10.7
REGULAR1 C  CA:1114474    2648 49:30 121:15(82-89) LADNER CREEK          17.4
REGULAR2 C  CA:111090M     656 49:52 121:26(74-89) BOSTON BAR            20.0
REGULAR3 C  CA:1119002     249 49:34 121:26(84-89) YALE                  20.1
*********************************************************************
* GPS SITE: 6A/826006      N49:14:00 W121:58:00 ELEV:    5, 1962
*********************************************************************
FIRST O. F  CA:1100030     178 49:02 122:22(44-89) ABBOTSFORD A          22.8
ACTIVE   C  CA:1101530      36 49:10 121:56( 1-89) CHILLIWACK             4.8
REGULAR1 C  CA:1101545      39 49:10 121:52(61-86) CHILLIWACK GIBSON ROA  6.5
REGULAR2 C  CA:1106865      35 49:11 121:48(67-88) ROSEDALE               8.3
REGULAR3 C  CA:1100120      50 49:15 121:46( 1-89) AGASSIZ CDA            9.1
*********************************************************************
* GPS SITE: 6A/826007      N49:07:00 W122:55:00 ELEV:   43, 1960
*********************************************************************
FIRST O. F  CA:1108447       9 49:11 123:10(37-89) VANCOUVER INT'L A      12.2
ACTIVE   C  CA:1107878     240 49:08 122:51(60-89) SURREY NEWTON           3.2
REGULAR1 C  CA:1107876     250 49:06 122:50(62-89) SURREY MUNICIPAL HALL   3.9
REGULAR2 C  CA:1108890     275 49:11 122:50(58-89) WHALLEY FOREST NURSER   6.0
REGULAR3 C  CA:1105553      60 49:13 122:54(60-80) NEW WESTMINSTER BC PE   6.9
```

```
*********************************************************************
* GPS SITE:  2/829017      N50:30:00 W120:40:00 ELEV: 4560, 1987
*********************************************************************
FIRST O. F  CA:1163780    1133 50:42 120:27(51-89) KAMLOOPS A              16.8
ACTIVE   C  CA:1124668    3612 50:30 120:49(71-89) LOGAN LAKE               6.6
REGULAR1 C  CA:1124460    4281 50:29 120:32(84-88) LAC LE JEUNE WALLOPER    6.0
REGULAR2 C  CA:1163790    2300 50:40 120:30(77-89) KAMLOOPS AFTON MINES    13.6
REGULAR3 C  CA:1123469    4187 50:28 121:01(67-89) HIGHLAND VALLEY LORNE   15.6
*********************************************************************
* GPS SITE:  1/831801      N49:50:00 W100:30:00 ELEV: 1400, 1984
*********************************************************************
FIRST O. F  CA:5010480    1342 49:55 099:57(41-89) BRANDON A               25.2
ACTIVE   C  CA:5012719    1420 49:39 100:15(82-89) SOURIS                  16.9
REGULAR1 C  CA:5012439    1560 50:02 100:14(84-89) RIVERS                  18.2
REGULAR2 C  CA:5012054    1650 50:06 100:38(62-89) OAKNER                  19.3
REGULAR3 C  CA:5012960    1434 49:51 100:56( 4-89) VIRDEN                  19.4
*********************************************************************
* GPS SITE:  3/833802      N49:30:30 W097:09:00 ELEV:  773, 1985
*********************************************************************
FIRST O. F  CA:5023222     783 49:54 097:14(38-89) WINNIPEG INT'L A        27.3
ACTIVE   C  CA:5022043     777 49:36 097:03(61-89) NIVERVILLE               7.8
REGULAR1 C  CA:5021054     768 49:39 097:07(67-89) GLENLEA                  9.9
REGULAR2 C  CA:5020768     780 49:37 097:19(79-88) DOMAIN                  10.6
REGULAR3 C  CA:5021529     790 49:40 096:53(80-89) LANDMARK                16.2
*********************************************************************
* GPS SITE: 6B/836450      N49:35:00 W096:20:00 ELEV:  958, 1971
*********************************************************************
FIRST O. F  CA:5023222     783 49:54 097:14(38-89) WINNIPEG INT'L A        45.8
ACTIVE   C  CA:5022780     832 49:32 096:46(56-89) STEINBACH               19.7
REGULAR1 C  CA:5032764    1018 49:39 096:10(69-83) SPRUCE TCPL 43           8.8
REGULAR2 C  CA:5020810     798 49:52 096:49(62-88) DUGALD                  29.2
REGULAR3 C  CA:5030160     722 50:01 096:26(53-89) BEAUSEJOUR 2            30.3
*********************************************************************
* GPS SITE: 6B/836451      N49:35:00 W096:20:00 ELEV:  958, 1971
*********************************************************************
FIRST O. F  CA:5023222     783 49:54 097:14(38-89) WINNIPEG INT'L A        45.8
ACTIVE   C  CA:5022780     832 49:32 096:46(56-89) STEINBACH               19.7
REGULAR1 C  CA:5032764    1018 49:39 096:10(69-83) SPRUCE TCPL 43           8.8
REGULAR2 C  CA:5020810     798 49:52 096:49(62-88) DUGALD                  29.2
REGULAR3 C  CA:5030160     722 50:01 096:26(53-89) BEAUSEJOUR 2            30.3
*********************************************************************
* GPS SITE: 7B/836452      N49:50:00 W097:00:00 ELEV:  772, 1961
*********************************************************************
FIRST O. F  CA:5023222     783 49:54 097:14(38-89) WINNIPEG INT'L A        11.4
ACTIVE   C  CA:5023261     763 49:57 097:06(60-89) WINNIPEG STP             9.2
REGULAR1 C  CA:5020810     798 49:52 096:49(62-88) DUGALD                   8.5
REGULAR2 C  CA:5021054     768 49:39 097:07(67-89) GLENLEA                 13.7
REGULAR3 C  CA:5022043     777 49:36 097:03(61-89) NIVERVILLE              16.3
*********************************************************************
* GPS SITE:  2/836454      N50:01:00 W098:42:00 ELEV:  900, 1976
*********************************************************************
FIRST O. F  CA:5012320     885 49:54 098:16(41-89) PORTAGE LA PRAIRIE A    20.9
ACTIVE   C  CA:5041684     987 49:54 098:42(73-89) MACGREGOR                8.1
REGULAR1 C  CA:5012322     857 49:59 098:19(62-89) PORTAGE LA PRAIRIE 2    17.2
REGULAR2 C  CA:5040764     815 50:11 098:23(67-89) DELTA UNIVERSITY FS     18.2
REGULAR3 C  CA:50410N0     925 50:11 099:01(73-89) GLADSTONE SOUTH         18.2
*********************************************************************
* GPS SITE:  1/841684      N45:50:56 W066:32:43 ELEV:   79, 1978
*********************************************************************
FIRST O. F  CA:8101500      54 45:52 066:32(51-89) FREDERICTON A            3.3
ACTIVE   C  CA:8103800     150 45:50 066:28(57-89) OROMOCTO                 0.8
REGULAR1 C  CA:8101600     130 45:55 066:37(13-89) FREDERICTON CDA          8.6
REGULAR2 C  CA:8100100     200 45:59 066:22(55-89) ACADIA FOREST EXP ST    11.8
REGULAR3 C  CA:8101800     175 45:47 066:09(23-89) GAGETOWN 2              16.4
*********************************************************************
* GPS SITE:  1/841802      N46:31:47 W067:45:51 ELEV:   82, 1980
*********************************************************************
FIRST O. F  US:ME001175    620 46:52 068:01(39-89) CARIBOU WSO AP          26.2
ACTIVE   C  CA:8100512     300 46:32 067:40(66-89) BEECHWOOD                4.6
REGULAR1 C  US:ME000833    420 46:25 067:51(57-89) BRIDGEWATER              8.8
REGULAR2 C  CA:8100850     469 46:23 067:42(65-89) CENTREVILLE             10.6
REGULAR3 C  CA:8100566    1450 46:39 067:35(66-89) BON ACCORD              12.0
```

```
*********************************************************************
* GPS SITE:  3/843803      N46:32:34 W064:47:15 ELEV:   72, 1980
*********************************************************************
FIRST O. F  CA:8103200     232 46:07 064:41(39-89) MONCTON A              29.8
ACTIVE   C  CA:8100590      35 46:31 064:43(65-89) BUCTOUCHE               3.8
REGULAR1 C  CA:8100592     118 46:26 064:46(82-89) BUCTOUCHE CDA           7.6
REGULAR2 C  CA:8104400      15 46:40 064:52(22-89) REXTON                  9.4
REGULAR3 C  CA:8102325     115 46:46 065:00(72-89) KOUCHIBOUGUAC          18.5
*********************************************************************
* GPS SITE: 6A/846804      N45:54:41 W067:02:47 ELEV:  177, 1966
*********************************************************************
FIRST O. F  CA:8101500      54 45:52 066:32(51-89) FREDERICTON A          24.9
ACTIVE   C  CA:8102536     328 45:57 066:54(73-89) MACTAQUAC PROV PARK     7.5
REGULAR1 C  CA:8102201     600 45:40 067:02(76-89) HARVEY STATION         16.9
REGULAR2 C  CA:8104480     380 46:03 066:43(65-89) ROYAL ROAD             18.5
REGULAR3 C  CA:8100775     570 45:53 067:28(70-89) CANTERBURY             20.3
*********************************************************************
* GPS SITE:  1/851801      N47:29:32 W052:52:05 ELEV:  560, 1984
*********************************************************************
FIRST O. F  CA:8403506     438 47:37 052:44(42-89) ST JOHN'S A            10.6
ACTIVE   C  CA:8403600     375 47:31 052:47(50-89) ST JOHN'S WEST CDA      4.3
REGULAR1 C  CA:8403669     315 47:34 052:41(84-89) SIGNAL HILL            10.0
REGULAR2 C  CA:8402309      20 47:27 053:06(70-89) HOLYROOD GEN STN       11.2
REGULAR3 C  CA:8402568      90 47:37 052:40(69-89) LOGY BAY               12.7
*********************************************************************
* GPS SITE:  1/851803      N48:41:30 W058:10:00 ELEV:  485, 1980
*********************************************************************
FIRST O. F  CA:8403800      26 48:32 058:33(42-89) STEPHENVILLE A         20.7
ACTIVE   C  CA:8401642     469 48:42 058:14(82-89) GALLANTS                3.1
REGULAR1 C  CA:8400570      88 48:34 058:22(81-89) BLACK DUCK             12.6
REGULAR2 C  CA:8401300      15 48:57 057:57(33-89) CORNER BROOK           20.4
REGULAR3 C  CA:8402945      43 48:33 058:55(80-89) PICCADILLY             35.7
*********************************************************************
* GPS SITE:  1/851808      N48:23:20 W058:28:14 ELEV:  254, 1983
*********************************************************************
FIRST O. F  CA:8403800      26 48:32 058:33(42-89) STEPHENVILLE A         10.6
ACTIVE   C  CA:8403450      38 48:26 058:28(56-89) ST GEORGES              3.1
REGULAR1 C  CA:8400570      88 48:34 058:22(81-89) BLACK DUCK             13.2
REGULAR2 C  CA:8401102      39 48:14 058:49(82-88) CARTYVILLE             19.2
REGULAR3 C  CA:8402945      43 48:33 058:55(80-89) PICCADILLY             23.3
*********************************************************************
* GPS SITE: 6A/866802      N44:51:05 W063:33:40 ELEV:  470, 1972
*********************************************************************
FIRST O. F  CA:8202250     415 44:53 063:31(53-89) HALIFAX INT'L A         3.1
ACTIVE   C  CA:8206250     222 44:41 063:31(55-89) WESTPHAL               11.8
REGULAR1 C  CA:8203600     520 44:54 063:50(19-89) MOUNT UNIACKE          13.8
REGULAR2 C  CA:8202220     230 44:39 063:35(33-89) HALIFAX CITADEL        13.9
REGULAR3 C  CA:8204453     540 44:46 063:50(79-89) POCKWOCK LAKE          14.6
*********************************************************************
* GPS SITE:  1/871620      N44:43:00 W079:38:00 ELEV:  705, 1981
*********************************************************************
FIRST O. F  CA:6115525     920 44:58 079:18(34-89) MUSKOKA A              23.8
ACTIVE   C  CA:6111769     935 44:38 079:32(71-89) COLDWATER WARMINSTER    7.6
REGULAR1 C  CA:6115820     720 44:37 079:25(65-89) ORILLIA TS             12.7
REGULAR2 C  CA:6115127     593 44:45 079:54( 1-86) MIDLAND                13.3
REGULAR3 C  CA:6113490     600 44:51 079:52(74-89) HONEY HBR BEAUSOLEIL   14.7
*********************************************************************
* GPS SITE:  1/871622      N45:08:30 W079:15:30 ELEV:  989, 1976
*********************************************************************
FIRST O. F  CA:6115525     920 44:58 079:18(34-89) MUSKOKA A              12.3
ACTIVE   C  CA:6110606     975 45:08 079:24(79-89) BEATRICE 2              6.9
REGULAR1 C  CA:6119115     975 45:12 079:21(71-83) UTTERSON ONT HYDRO      6.0
REGULAR2 C  CA:6115150     825 45:06 079:29(65-84) MILFORD BAY            11.4
REGULAR3 C  CA:6113663     937 45:20 079:13(60-89) HUNTSVILLE WPCP        13.4
*********************************************************************
* GPS SITE:  2/871680      N43:56:30 W079:22:30 ELEV: 1020, 1985
*********************************************************************
FIRST O. F  CA:615HMAK     646 43:52 079:22(86-89) TORONTO BUTTONVILLE A   5.2
ACTIVE   C  CA:6152953     650 43:52 079:23(74-89) GORMLEY ARDENLEE        5.2
REGULAR1 C  CA:6157012     764 43:53 079:27(59-89) RICHMOND HILL           5.5
REGULAR2 C  CA:6158084     875 43:58 079:15(71-89) STOUFFVILLE WPCP        6.5
REGULAR3 C  CA:6154950     801 43:52 079:29(62-89) MAPLE                   7.5
```

```
**********************************************************************
* GPS SITE:  1/871806      N43:59:00 W079:23:00 ELEV:  960, 1985
**********************************************************************
FIRST O. F  CA:615HMAK     646 43:52 079:22(86-89) TORONTO BUTTONVILLE A      8.1
ACTIVE   C  CA:6158084     875 43:58 079:15(71-89) STOUFFVILLE WPCP           6.7
REGULAR1 C  CA:6154142    1155 44:01 079:31(74-89) KING SMOKE TREE            7.0
REGULAR2 C  CA:6157012     764 43:53 079:27(59-89) RICHMOND HILL              7.7
REGULAR3 C  CA:6152953     650 43:52 079:23(74-89) GORMLEY ARDENLEE           8.1
**********************************************************************
* GPS SITE:  2/872811      N42:59:30 W082:03:00 ELEV:  724, 1977
**********************************************************************
FIRST O. F  CA:6144475     912 43:02 081:09(40-89) LONDON A                  45.6
ACTIVE   C  CA:6126499     660 42:53 082:10(60-89) PETROLIA TOWN              9.5
REGULAR1 C  CA:6127514     594 43:00 082:18(67-89) SARNIA A                  12.7
REGULAR2 C  US:MI006680    590 42:59 082:25(48-89) PORT HURON                18.6
REGULAR3 C  CA:6148120     750 42:57 081:39( 6-89) STRATHROY                 20.4
**********************************************************************
* GPS SITE:  2/872812      N42:57:00 W081:19:30 ELEV:  830, 1981
**********************************************************************
FIRST O. F  CA:6144475     912 43:02 081:09(40-89) LONDON A                  10.6
ACTIVE   C  CA:6149455     850 42:55 081:13(61-89) WESTMINSTER TWP WPCP       5.9
REGULAR1 C  CA:6143722     875 43:03 081:26(71-89) ILDERTON BEAR CREEK        8.8
REGULAR2 C  CA:6137362     686 42:46 081:13(80-89) ST THOMAS WPCP            13.8
REGULAR3 C  CA:6148120     750 42:57 081:39( 6-89) STRATHROY                 16.5
**********************************************************************
* GPS SITE:  1/881645      N46:19:30 W063:39:40 ELEV:  150, 1987
**********************************************************************
FIRST O. F  CA:8300700      78 46:26 063:50(42-89) SUMMERSIDE A              11.1
ACTIVE   C  CA:8300060     110 46:16 063:35(84-89) ALBANY                     5.5
REGULAR1 C  CA:8300500      50 46:30 063:33(57-89) NEW LONDON                13.2
REGULAR2 C  CA:8300497      20 46:26 063:21(71-89) NEW GLASGOW               16.6
REGULAR3 C  CA:8102369      60 46:07 064:02(86-89) LITTLE SHEMOGUE           22.9
**********************************************************************
* GPS SITE:  1/881646      N46:16:15 W063:36:00 ELEV:  100, 1980
**********************************************************************
FIRST O. F  CA:8300700      78 46:26 063:50(42-89) SUMMERSIDE A              15.8
ACTIVE   C  CA:8300060     110 46:16 063:35(84-89) ALBANY                     0.8
REGULAR1 C  CA:8300500      50 46:30 063:33(57-89) NEW LONDON                16.0
REGULAR2 C  CA:8300497      20 46:26 063:21(71-89) NEW GLASGOW               16.4
REGULAR3 F  CA:8300300     156 46:17 063:08(43-89) CHARLOTTETOWN A           22.3
**********************************************************************
* GPS SITE:  2/881647      N46:20:30 W063:19:00 ELEV:  100, 1986
**********************************************************************
FIRST O. F  CA:8300300     156 46:17 063:08(43-89) CHARLOTTETOWN A            9.6
ACTIVE   C  CA:8300497      20 46:26 063:21(71-89) NEW GLASGOW                6.5
REGULAR1 C  CA:8300400      74 46:15 063:08(10-89) CHARLOTTETOWN CDA          10.8
REGULAR2 C  CA:8300590      10 46:25 063:05(61-89) STANHOPE                   12.3
REGULAR3 C  CA:8300060     110 46:16 063:35(84-89) ALBANY                     13.8
**********************************************************************
* GPS SITE:  1/891021      N46:26:00 W072:29:00 ELEV:  100, 1983
**********************************************************************
FIRST O. F  CA:7016294     230 46:48 071:23(43-89) QUEBEC A                  58.1
ACTIVE   C  CA:701HE63     180 46:23 072:37(74-89) TROIS RIVIERES AQUEDU      7.2
REGULAR1 C  CA:7018564     175 46:22 072:36(34-86) TROIS RIVIERES             7.2
REGULAR2 C  CA:7017585     151 46:32 072:26(73-89) ST NARCISSE                7.3
REGULAR3 C  CA:7020570      49 46:20 072:26(66-89) BECANCOUR                  7.3
**********************************************************************
* GPS SITE:  1/891125      N46:41:55 W071:40:42 ELEV:  185, 1978
**********************************************************************
FIRST O. F  CA:7016294     230 46:48 071:23(43-89) QUEBEC A                  15.5
ACTIVE   C  CA:7012071     150 46:41 071:44(52-89) DONNACONA 2                3.0
REGULAR1 C  CA:7027088     230 46:37 071:47(73-89) STE CROIX                  7.7
REGULAR2 C  CA:7016900     190 46:44 071:30(64-89) ST AUGUSTIN                8.7
REGULAR3 C  CA:7016932     500 46:51 071:37(64-89) STE CATHERINE             10.8
**********************************************************************
* GPS SITE:  1/891127      N46:28:00 W071:02:00 ELEV:  525, 1978
**********************************************************************
FIRST O. F  CA:7016294     230 46:48 071:23(43-89) QUEBEC A                  28.4
ACTIVE   C  CA:7027840     475 46:30 071:05(50-89) SCOTT                      3.3
REGULAR1 C  CA:7028676     500 46:23 070:56(65-89) VALLEE JONCTION            7.5
REGULAR2 C  CA:7027733    1450 46:20 071:03(64-89) ST SEVERIN                 9.2
REGULAR3 C  CA:7022553    1400 46:26 070:50(65-85) FRAMPTON                   9.8
```

```
**********************************************************************
* GPS SITE:  2/892011      N45:24:00 W071:19:00 ELEV:  830, 1979
**********************************************************************
FIRST O. F  CA:7028124     782 45:26 071:41(62-89) SHERBROOKE A          18.0
ACTIVE   C  CA:7028906    1666 45:24 071:18(65-89) WEST DITTON           0.8
REGULAR1 C  CA:7025212    3645 45:27 071:09(78-89) MONT MEGANTIC         8.8  REJECTED
REGULAR2 C  CA:7027802    1135 45:22 071:32(61-89) SAWYERVILLE NORD     10.8
REGULAR3 C  CA:7025670    1650 45:24 071:05(65-89) NOTRE DAME DES BOI%  11.3
**********************************************************************
* GPS SITE:  3/893001      N45:53:00 W073:11:00 ELEV:   70, 1974
**********************************************************************
FIRST O. F  CA:7027320      90 45:31 073:25(28-89) ST HUBERT A           27.7
ACTIVE   C  CA:7022375     100 45:48 073:00(67-89) FLEURY                10.5
REGULAR1 C  CA:7014260     100 45:56 073:19(57-82) LAVALTRIE CDA          7.3
REGULAR2 C  CA:7028200      48 46:02 073:07(14-89) SOREL                 10.8
REGULAR3 C  CA:7010720      40 46:03 073:11(19-89) BERTHIERVILLE         11.5
**********************************************************************
* GPS SITE:  3/893002      N45:36:00 W073:40:00 ELEV:  125, 1979
**********************************************************************
FIRST O. F  CA:7025250     101 45:28 073:45(41-89) MONTREAL/DORVAL INT'L 10.1
ACTIVE   C  CA:7020392     174 45:39 073:44(83-89) AUTEUIL                4.7
REGULAR1 C  CA:702G266      50 45:40 073:35(73-85) ST FRANCOIS DE LAVAL   6.1
REGULAR2 C  CA:7025257     150 45:34 073:33(48-89) MONTREAL JAR BOT       6.1
REGULAR3 C  CA:7025260     435 45:30 073:37(56-85) MONTREAL JEAN BREBEUF  7.3
**********************************************************************
* GPS SITE:  3/893015      N46:28:00 W072:22:00 ELEV:  104, 1984
**********************************************************************
FIRST O. F  CA:7016294     230 46:48 071:23(43-89) QUEBEC A              52.1
ACTIVE   C  CA:7011290      39 46:28 072:20(80-89) CHAMPLAIN              1.6
REGULAR1 C  CA:7017585     151 46:32 072:26(73-89) ST NARCISSE           5.6
REGULAR2 C  CA:7020570      49 46:20 072:26(66-89) BECANCOUR             9.7
REGULAR3 C  CA:7016840      52 46:35 072:14(49-89) STE ANNE DE LA PERADE 10.3
**********************************************************************
* GPS SITE:  3/893016      N46:34:00 W072:13:00 ELEV:   55, 1984
**********************************************************************
FIRST O. F  CA:7016294     230 46:48 071:23(43-89) QUEBEC A              42.7
ACTIVE   C  CA:7016840      52 46:35 072:14(49-89) STE ANNE DE LA PERADE  1.4
REGULAR1 C  CA:7011290      39 46:28 072:20(80-89) CHAMPLAIN              8.9
REGULAR2 C  CA:7022494     175 46:29 072:03(73-89) FORTIERVILLE           9.8
REGULAR3 C  CA:7017585     151 46:32 072:26(73-89) ST NARCISSE           10.6
**********************************************************************
* GPS SITE:  9/899018      N46:19:00 W072:29:00 ELEV:   52, 1975
**********************************************************************
FIRST O. F  CA:7016294     230 46:48 071:23(43-89) QUEBEC A              62.1
ACTIVE   C  CA:7020570      49 46:20 072:26(66-89) BECANCOUR              2.7
REGULAR1 C  CA:7018564     175 46:22 072:36(34-86) TROIS RIVIERES         6.6
REGULAR2 C  CA:701HE63     180 46:23 072:37(74-89) TROIS RIVIERES AQUEDU  7.9
REGULAR3 C  CA:7025440     100 46:12 072:37(13-89) NICOLET               10.3
**********************************************************************
* GPS SITE:  1/901802      N50:09:45 W102:18:00 ELEV: 2112, 1971
**********************************************************************
FIRST O. F  CA:4010879    1961 50:23 102:41(65-89) BROADVIEW             22.8
ACTIVE   C  CA:4014040    2202 50:12 102:44(49-89) KIPLING               19.4
REGULAR1 C  CA:4018506    1975 50:11 102:08(71-82) WAPELLA               7.5
REGULAR2 C  CA:4018880    1916 50:28 102:14( 2-89) WHITEWOOD             21.2
REGULAR3 C  CA:4018678    2110 49:56 101:58(77-89) WAWOTA                21.7
**********************************************************************
* GPS SITE: 6A/906400      N50:23:00 W102:15:30 ELEV: 1967, 1972
**********************************************************************
FIRST O. F  CA:4010879    1961 50:23 102:41(65-89) BROADVIEW             18.7
ACTIVE   C  CA:4018880    1916 50:28 102:14( 2-89) WHITEWOOD             5.9
REGULAR1 C  CA:4018506    1975 50:11 102:08(71-82) WAPELLA               14.9
REGULAR2 C  CA:4018508    1873 50:27 101:56(79-89) WAPELLA NEWFINLAND     15.0
REGULAR3 C  CA:4014040    2202 50:12 102:44(49-89) KIPLING               24.5
**********************************************************************
* GPS SITE:  1/906405      N51:54:30 W105:19:30 ELEV: 1785, 1969
**********************************************************************
FIRST O. F  CA:4019035    1840 51:46 104:12(39-89) WYNYARD               49.1
ACTIVE   C  CA:4013038    1726 51:47 105:17(73-89) GUERNSEY              8.8
REGULAR1 C  CA:4058492    1795 51:57 105:38(73-89) VISCOUNT              13.5
REGULAR2 C  CA:4018640    1775 51:40 105:28(53-89) WATROUS               17.8
REGULAR3 C  CA:4051636    1780 51:56 105:46(71-89) COLONSAY              18.9
```

```
**********************************************************************
* GPS SITE: 6B/906410      N52:03:30 W106:36:00 ELEV: 1680, 1968
**********************************************************************
FIRST O. F  CA:4057120    1643 52:10 106:41( 1-89) SASKATOON A              8.3
ACTIVE   C  CA:4057130    1710 52:06 106:36(74-89) SASKATOON CENTRAL AVE    2.9
REGULAR1 C  CA:4057172    1611 52:07 106:40(77-89) SASKATOON 2              4.9
REGULAR2 C  CA:4057202    1585 52:07 106:41(74-89) SASKATOON WATER TP       5.4
REGULAR3 C  CA:4057180    1630 52:09 106:36(63-89) SASKATOON SRC            6.3
**********************************************************************
* GPS SITE: 6B/906412      N52:03:30 W106:36:00 ELEV: 1678, 1968
**********************************************************************
FIRST O. F  CA:4057120    1643 52:10 106:41( 1-89) SASKATOON A              8.3
ACTIVE   C  CA:4057130    1710 52:06 106:36(74-89) SASKATOON CENTRAL AVE    2.9
REGULAR1 C  CA:4057172    1611 52:07 106:40(77-89) SASKATOON 2              4.9
REGULAR2 C  CA:4057202    1585 52:07 106:41(74-89) SASKATOON WATER TP       5.4
REGULAR3 C  CA:4057180    1630 52:09 106:36(63-89) SASKATOON SRC            6.3
**********************************************************************
* GPS SITE: 6A/906801      N50:22:00 W102:15:30 ELEV: 1965, 1972
**********************************************************************
FIRST O. F  CA:4010879    1961 50:23 102:41(65-89) BROADVIEW               18.8
ACTIVE   C  CA:4018880    1916 50:28 102:14( 2-89) WHITEWOOD                7.0
REGULAR1 C  CA:4018506    1975 50:11 102:08(71-82) WAPELLA                 13.8
REGULAR2 C  CA:4018508    1873 50:27 101:56(79-89) WAPELLA NEWFINLAND       15.4
REGULAR3 C  CA:4014040    2202 50:12 102:44(49-89) KIPLING                 23.9
```

Long-Term Pavement Performance Advisory Committee

Chairman
William J. MacCreery
W.J. MacCreery, Inc.

David Albright
Alliance for Transportation Research

Richard Barksdale
Georgia Institute of Technology

James L. Brown
Pavement Consultant

Robert L. Clevenger
Colorado Department of Highways

Ronald Collins
Georgia Department of Transportation

Guy Dore
Ministere des Transports de Quebec

Charles E. Dougan
Connecticut Department of Transportation

McRaney Fulmer
South Carolina Department of Highways and Public Transportation

Marlin J. Knutson
American Concrete Pavement Association

Hans Jorgen Ertman Larsen
Danish Road Institute, Road Directorate

Kenneth H. McGhee
Consultant Civil Engineer

Raymond K. Moore
University of Kansas

Richard D. Morgan
National Asphalt Pavement Association

William R. Moyer
Pennsylvania Department of Transportation

David E. Newcomb
University of Minnesota

Charles A. Pryor
National Stone Association

Cesar A.V. Queiroz
The World Bank

Roland L. Rizenbergs
Kentucky Transportation Cabinet

Gary K. Robinson
Arizona Department of Transportation

Frederic R. Ross
Wisconsin Department of Transportation

Ted M. Scott
American Trucking Association

Marshall R. Thompson
University of Illinois

Kenneth R. Wardlaw
Exxon Chemical Corporation

Marcus Williams
H.B. Zachry Company

Liaisons

Albert J. Bush, III
USAE Waterways Experiment Station

Louis M. Papet
Federal Highway Administration

John P. Hallin
Federal Highway Administration

Ted Ferragut
Federal Highway Administration

Frank R. McCullagh
Transportation Research Board

Expert Task Group

Chairman
Richard L. Berg
U.S. Army CRREL

Tom Christison
Alberta Research Council

Walter Dabberdt
National Center for Atmospheric Research

Barry J. Dempsey
University of Illinois

Ed W. Ferguson
Washington Department of Transportation

John Griffith
Texas A&M University

David W. Phillips
Canadian Climate Center

Eugene Rasmusson
University of Maryland