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Assessing the Local Windfield with Instrumentation

T. G. Zambrano

Aerovironment, Inc.
145 Vista Avenue
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October 1980

Prepared for
Pacific Northwest Laboratory
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EXECUTIVE SUMMARY

This report concerns the development and testing of a technique for the initial screening and evaluation of potential sites for wind-energy conversion systems (WECS). The methodology was developed through a realistic siting exercise. The siting exercise involved measurements of winds along the surface and winds aloft using a relatively new instrument system, the Tethered Aerodynamic Lifting Anemometer (TALA) kite; notation of ecological factors such as vegetation flagging, soil erosion and site exposure, and verification of an area best suited for wind-energy development by establishing and maintaining a wind monitoring network. The siting exercise was carried out in an approximately 100-square-mile region of the Tehachapi Mountains of Southern California. The results showed that a comprehensive site survey involving field measurements, ecological survey, and wind-monitoring can be an effective tool for preliminary evaluation of WECS sites.

The first step involved preliminary screening of the site using available data and a tour of the area. Of the 100 square miles comprising the study region, only a 20-square-mile area containing major ridgelines was considered suitable for WECS investigation. The preliminary site investigation showed that in this remaining 20 square miles there would most probably be one orographic feature per square mile which would make a local area suitable for WECS siting.

The second step involved investigating 16 candidate sites in a detailed field assessment survey. The survey was conducted during a one-week period when winds were from the dominant northwest direction. The goal of the survey was to use various wind-energy assessment techniques to judge the merits and disadvantages of wind-monitoring at each respective site. For each wind-energy assessment technique -- namely, ecological features, short-term anemometry, and serviceability -- each site was ranked with respect to the other 15 in order of merit. This ranking was a preliminary wind-energy assessment criterion. The final result was a combination of the three sets of rankings into a matrix to obtain, from best to worst, the most suitable sites for installing wind-monitoring stations.

Many of the techniques used in this second step were novel to wind-energy assessment. The TALA kites proved to be a versatile field instrument (but not without design flaws) and continually indicated a more uniform vertical profile of wind speed than would be obtained from a $1/7$ power law. The vegetation survey involved the development of a deformation index for California oak, which will be refined when annual wind speed statistics for the data are obtained. Portable, modular 10-m wind-monitoring stations specifically designed for study application were shown to be satisfactory low-cost field instruments.

In the third step, nine sites of the original 16 candidate sites were equipped with 10-m wind-monitoring stations. Wind speed and wind-direction were continuously recorded during a six-month period. Two stations out of nine had wind-direction monitoring capabilities. However, for future surveys it is recommended that wind direction data be taken at all wind-monitoring locations. Presently, an additional six months of wind-monitoring is being performed with support from the California Energy Commission.

Using the recorded six-month data, results from the field assessment survey, and continued TALA measurements, wind-field analysis, power-availability estimate, and comparison of wind energy assessment techniques were made.

The wind-field analysis identified four basic wind-flow patterns in the study region -- summer northwest, winter northwest, summer southeast, and Santa Ana flow -- and their respective diurnal patterns, frequency, and wind speed distribution. In general, it was seen that during the summer and early fall northwest flow can be enhanced by a channeled northwest flow up the axis of the San Joaquin Valley. The study region is located at the terminus of the valley and is recipient of the up-valley flow. At other times during summer and early fall, an inversion layer caps the San Joaquin Valley and inhibits the flow of air over the study region. During late evening, the high ridges of the study area were exposed to upper-level flows. Periods of high winds on these ridges corresponded to strong upper-level winds associated with weather fronts and active upper-level atmospheric circulation. These winds tend to be the strongest during the winter and spring seasons when the atmospheric circulation is most active.

The wind-speed distributions for each of the 9 wind-monitoring sites were determined and the wind-energy flux obtained on a seasonal (summer and fall) and annual (estimated) basis. There is a ridgeline running approximately 7 miles in an area referred to as La Liebre, where the annual estimated wind-energy flux exceeds 400 watts/m^2 , corresponding to a constant steady energy wind of about 9 m/sec (20 mph) at the 50-m level, with some areas showing a seasonal wind-energy flux in excess of 500 watts/m^2 (a steady energy wind of 22 mph). The energy wind is defined as the continuous wind which would have the same energy as the actual wind distribution. Most other regions that were investigated showed an estimated seasonal wind energy flux rarely exceeding 200 watts/m^2 (a steady energy wind of 15 mph) at the 50-m level.

Wind-energy distributions were applied to a hypothetical, large WECS, of which the Boeing design for the MOD-2, 2500 kW rated, 100-m rotor diameter propeller-type unit is a typical example. In the most promising regions of the study area such a single unit would produce $5.7 \times 10^6 \text{ kW-hr}$ per year, corresponding to an annual average power of 0.65 MW. Based upon simplified single-line design with a two-rotor-diameter spacing between hubs and an assumed 90% land availability, an array of 56 units located in the most promising ridgelines could produce $320 \times 10^6 \text{ kW-hr}$ per year, corresponding to an average power of 36.4 MW. Array modifications and optimum turbine sizing and selection were not considered in the initial survey.

Comparisons of recorded six-month data to the results of the field assessment survey showed that the wind-energy assessment techniques used were able to identify sites which were most immediate and reliable for WECS development, and also those with marginal development potential. Data analysis showed a need to refine initial relationships concerning the mechanics of tree deformation.

The insights gained during the course of this program are the basis of our conclusion that, with improvement of the vegetation indices and further field experience with the TALA systems, this program for assessing local wind fields constitutes a reliable cost-effective technique for WECS siting in complex terrain.

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INTRODUCTION

To use wind energy, locations of adequate resource must first be identified. Since many regions considered to have good potential for wind-energy conversion systems (WECS) are located in remote mountainous terrain, there is a need to develop a methodology which, when examining a remote region, would determine which specific area would be the most suitable for WECS.

This report is concerned with the development and testing of an observational methodology for the initial screening and for the evaluation of potential WECS sites through a realistic siting exercise. Involved in the siting exercise were measurements of surface and winds aloft to 100 m above the surface using a relatively new instrument system, the Tethered Aerodynamic Lifting Anemometer (TALA) kite; notation of ecological factors such as vegetation flagging, soil erosion and site exposure; and verification of an area best suited for wind-energy development by establishing and maintaining a wind-monitoring network. The siting exercise was carried out in an approximately 100-square-mile region of the Tehachapi Mountains in Southern California (Figure 1).

A description of the program methodology is given below. Subsequent chapters report the application and evaluation of this technique when used in the Tehachapi Mountains.

The program consisted of three steps: (1) data assessment, (2) field survey, and (3) regional investigation/verification.

The initial step is a thorough examination of all meteorological information available for the study region. This examination includes a review of all available temperature, precipitation, surface- and upper-level wind data. State and local climatological data summaries published by the National Weather Service of the National Oceanic and Atmospheric Administration (NOAA) are available in most areas. Other climatic data may be available from the United States or state forest agencies, utility companies, or other agencies.

FIGURE 1. Tehachapi Mountain study region.

The wind data may come in many forms. Obtaining the hourly observations is preferred although much can be gathered from most data summaries. The NOAA climatic data give daily, monthly and annual mean wind-velocity data for many stations, usually airports or key points for air traffic control. In these cases, a wind rose study can be useful in understanding the general flow pattern in the region. The persistence and strength of the wind flow should be analyzed on a monthly, seasonal, and annual basis. The mean maximum and minimum temperatures are also very useful in delineating areas of high temperature gradients which usually indicate strong winds. However, caution should be used when interpreting temperature gradients over mountainous areas, since many gradients may be due entirely to elevation differences.

Areas of maximum precipitation are also noted from the state climatological summaries. These high precipitations are generally confined to the well-exposed mountains where upslope winds play a major role in precipitation. If hills or a mountain range force air masses to ascend, there is usually a speed-up of the airflow as it passes over the exposed ridges.

Once meteorological data is summarized on a daily, seasonal, or annual basis, it should be viewed in relation to the local topography to delineate areas that are readily subjected to a meteorological influence. For example, it is generally observed in mountainous regions that strong winds occur when the stream flow from the surface to at least 400 mb is moderate to strong and is nearly perpendicular to a mountain barrier. If the most significant orographic lifting occurs in the layer below 500 mb, then there is a tendency to produce an inversion above the mountaintop level (Grant et al., 1969). Then, if an area of strong subsidence travels normal to that mountain range, the force lifting from below, coupled with the sinking air from above, will result in strong downslope winds along that particular ridgeline.

U.S. Geological Survey maps scaled at 1:250,000, 1:62,500, or 1:31,250 series are useful. Other topographic maps may be available, such as sectional aeronautical charts (1:500,000 scale) available from the Federal Aviation Administration, U.S. Department of Commerce, or the U.S. Department of Defense. Raised relief maps of the area are also useful to familiarize one with the major topographic features of the region.

For a large mountainous region, this initial task of meteorological data assessment can (1) save time, (2) provide valuable information on the characteristics of the region, (3) facilitate making arrangements to obtain daily weather observations during the siting experience, and (4) facilitate early coordination with local residents, forest service personnel, etc., as to their knowledge of where locally strong winds prevail and what regions are navigable.

The second step in a program for assessing the local wind field with instrumentation involves a field investigation. A wind-energy siting team investigates meteorologically identified regions to provide information on areas where data are not available. To determine the most suitable sites for wind-energy systems, several procedures are used. The first, conducted prior to and during the field program, involves analyses of topographic maps and aeronautical charts. The second procedure is an intensive short-term field measurement program (referred to as check anemometry) of surface and winds aloft using portable anemometers, TALA systems, and collection of all available historical data conducted ideally on days when the wind flow is from the prevailing direction. The third procedure is an ecological field survey in which such factors as vegetation flagging, site exposure, and terrain features are studied. The results of each wind prospecting method are then combined into a matrix from which each candidate site is weighed as to its merits and disadvantages for wind monitoring.

The check anemometry survey is made on days when the wind flow is from the prevailing direction. Wind measurements are made utilizing hand-held anemometers and the TALA kite. The approach is to select a base station within a region and measure wind velocity profiles coordinated (by walkie-talkie) with two other TALA systems in the nearby areas. Readings (10-minute averages) at the 10-m to 100-m level are taken. The TALA traverses are then compared to the base unit to determine temporal changes. The result of this check anemometry comparison is one procedure in defining the specific areas for installation of wind-measuring stations.

Another procedure is an inspection of the vegetation in the vicinity of prospective sites. Vegetation throughout an area can be surveyed and used as one subjective index of wind strength. Bushes and trees exposed to persistently strong winds will exhibit a wind-swept form with most of the vegetation found on the lee side of the main stem.

Grasses will appear in clumps, clipped short, and aligned with the prevailing wind. Locations with extremely strong mean wind speeds (greater than 27 mph) will probably have bushes and grasses (Putnam, 1948) only. Trees, where present, will display various degrees of wind shaping depending upon the wind's strength (Hewson et al., 1979). Trees in moderate wind locations (mean speeds greater than 12 mph) will have asymmetric crowns with small branches and twigs swept downwind from the prevailing wind direction. Tree trunks will be elliptically shaped with major axes parallel to the prevailing wind direction. Tree rings will be wider on the lee side of the tree for conifers and narrower on the lee side for deciduous trees. In the windiest locations, trees will be completely flagged with all branches swept by prevailing winds to the lee side of the tree. In extreme winds, the trunk will be swept parallel to the ground, and tree rings will exhibit extremely eccentric growth.

Vegetation can also be used to determine the extent of strong winds. Often, in complex terrain, there may be large variations in wind strength over small spatial distances due to terrain irregularities and the inhomogeneous nature of the wind-field.

In the third step for assessing the local wind field with instrumentation, each of the promising sites identified from the field assessment is instrumented with temporary but durable instruments. The general requirement of a wind-energy prospecting device is that the data obtained be sufficient to generate (1) a diurnal distribution of wind speed, and (2) a joint frequency distribution of wind-speed and wind-direction with respect to time. The former is required to understand local meteorology and in matching the power availability with demand. The latter is the most concise summary of the local wind-energy availability and predominant flow patterns.

The actual instrumentation will be a factor of the cost and scope of the wind-energy prospecting. Strip-chart recorders were used in this siting exercise because of their availability; however, solid-state digital recorders are now becoming cost competitive and should be seriously considered when deciding on instrumentation.

This report consists of nine chapters with contributions from all scientists, meteorologists, and technicians involved in this WECS siting exercise. The principal author is Mr. Thomas G. Zambrano, program manager.

The second chapter discusses the field assessment activities and operations during the program, with particular emphasis on wind monitoring station site selection and field equipment reliability, problems, and solutions. In the third chapter, results from wind measurements conducted during the program year are reported. Selected station results are presented; complete data from all stations are included in the appendix. Data from historical sites are also reported.

The fourth chapter is a detailed wind-flow analysis of the study region using results obtained from the array of temporary wind-monitoring stations and observations and historical data gathered during the study period. The fifth chapter is a brief description of other environmental aspects of the study region. In the sixth chapter, important power availability estimates are made and reported, with particular attention to system requirements for large megawatt-size WECS.

The seventh chapter summarizes the siting exercise and compares initial findings from the field assessment survey, in view of recorded data and results. Conclusions and recommendations are made in the eighth chapter, and the ninth chapter is a compilation of all references cited herein.

FIELD ASSESSMENT SURVEY AND OPERATIONS

This chapter discusses the results obtained from the first and second steps of the siting exercise -- that is, the data assessment and field survey. Also in this chapter is a detailed account of the methodology used of TALA kites, equipment operation, and performance.

DATA ASSESSMENT - INITIAL SITE SCREENING

The Tehachapi Mountains region of Southern California was chosen for this siting exercise for several reasons. Several studies (Traci and Phillips, 1977; Baker and Wade, 1978; Lindley, 1977) indicated the region possesses a combination of characteristics which would seem promising for WECS.

In conducting a mesoscale regional investigation from surface data and upper-air data available from Bakersfield, Sandberg Mountain, and Edwards Air Force Base, Traci (1977) reported that for much of the time (~60%) low-level prevailing winds from the San Joaquin Valley area are at near-normal incidence to the high (1500 to 2500-m) ridge-like structure comprising the Tehachapis. Concerning the results of a mathematical wind-field model, Traci et al. reported that:

... there is a large extent of high wind area encompassing the Tehachapi ridge, the Frazier and Pinos mountain area (SW corner of the region), and the Sandberg mountain area (south-central region). The mean wind throughout much of this region at 546 m AGL (above ground level) is greater than 10 m/sec.

Furthermore,

... for the near-neutral stability case, at the 42 m to 63 m AGL, air flows over and is augmented by the terrain rather than flowing primarily around the terrain as in the 4800 m AGL case .... a relatively low speed 2 m/sec flow (exists) in the San Joaquin Valley area which is enhanced to 6 m/sec at the highest points of the

Tehachapi ridge and in the mountainous area at the SW corner of the region and decreases to 2.5 m/sec in the desert region. The velocity vector(s) also shows the relatively two-dimensional nature of the flow over the Tehachapi ridge area.

Another study conducted in 1978 by Baker and Wade (1978) affirmed this strong local augmentation effect at several areas of the Tehachapi Mountains, most notably, the region north of Tejon Pass. In a field inspection of the region, Baker and Wade commented that:

... the vegetation on the north side of Tejon Pass consisted of a grove of ancient black oaks. These oaks were remarkable in that the trunks were extremely eccentric with the major axis northwest through southeast. When wind causes eccentric growth the major axis is parallel to the prevailing wind direction. ... Tejon Ranch Supervisor of Ranch Wildlife and Security, John Ortega, said that several other regions of the ranch had similar tree flagging; however, most of the other exposed ridges on the ranch present severe access problems.

Thirdly, in a study conducted by Lindley (1977) investigating the feasibility of using wind machines to provide part of the energy required to pump water in the California Aqueduct, the south-central area of the Tehachapi Mountains was selected as the baseline site because:

(1) almost half the total energy used by the Aqueduct is projected for the Edmonston Pumping Plant and over three-quarters of the energy will be used by the combination of the Edmonston Pumping Plant (located near the northeast slope of the Tehachapis on the San Joaquin Valley floor) and the next three upstream and two downstream stations; (2) this series of pumps runs throughout the calendar year and is at least partly schedulable; (3) of the three most attractive wind energy sites located, Sandberg, Altamont, and Devers, the largest and most reliable set of wind data is available for Sandberg; (4) while Bald Mountain, where Sandberg Station is located, is too small for a major WECS installation, there are large suitable areas at nearby Tejon Mountain, Liebre Mountain, and the Antelope Valley floor.

In summary, consistent in all three investigations is the attractiveness of the wind resource in the Tehachapi Mountains as proven by limited measurements. Likewise, all three investigations specified the south-central area of the Tehachapi Range, the most prominent wind region, although the likelihood that each available region contains areas where the wind energy would be greater than those measured was noted.

Figures 2 through 4 are relief maps of the south-central area of the Tehachapi Mountains chosen for this siting exercise. Figure 2 is a relief map detailing the study area. This 100-square-mile region of the Tehachapis is part of El Tejon Ranchos. El Tejon Ranchos includes four land grants: El Tejon, La Liebre, Castaic, and Los Alamos y Agua Caliente. El Tejon covers the northwest slopes leading into the San Joaquin Valley; La Liebre covers the southwest region, including the Antelope Valley; Castaic covers the southeast region locally referred to as the Grapevine; and Los Alamos y Agua Caliente covers the south-central region. This last area is the major area to be investigated in this study. The region is comprised of fairly high (3000 to 5000 ft) rolling mountains with a 10% to 20% slope on the northwest (windward) side, and a continuous, finger-like downslope to the high desert (southeast) side into the Antelope Valley. Vegetation is largely grass and sage and grows during the brief wet season (December through February, generally in the form of snow), then lies dormant during the dry summer season. Temperatures are fairly moderate, although subfreezing temperatures will occur, as will those exceeding 90° F. In the lower elevations there are trees, primarily California oak, growing on the north-facing slopes and where run-off water is available. The higher elevations are wind-scoured with tight groves of oaks interlaced and trimmed to a uniform height by strong winds and icing. In some areas, these trees are so dense they are barely penetrable. The Tejon Ranch uses the land for cattle grazing as it is too dry and steep for crop growing. The California oak is also farmed for firewood and hardwood veneer.

The California Aqueduct, which traverses southwest through the San Joaquin Valley, transects this region of the Tehachapis through a series of tunnels and siphons. Because of the Aqueduct water, the flat lowland of the San Joaquin Valley to the northeast is capable of growing crops, most notably cotton and fruit trees. The higher flatlands in the Antelope Valley to the southwest are far less productive for crops due to inaccessibility of Aqueduct water and salinity of the soil. A cement plant is located on the southwest slope

FIGURE 2. Detail of Tehachapi study area.

of the Tehachapi Mountains making use of abundant limestone deposits accumulated on the slopes and valley floor.

Figure 3 is the same scale relief map of the study region as Figure 2 but with prominent ridgelines highlighted. The far northeast section of the study region is Winters Ridge (presumably named after Jim Winter, who having handled sheep on the moors of Scotland, where he was born, settled in the Tehachapis and surrounding deserts in the 1870s). This is the highest ridgeline; traversing west-northwest, its major axis is five miles long with peaks over 6000 ft and is most inaccessible. In contrast to other portions of the study area, Winters Ridge is well forested to the northeast by very tall and straight Ponderosa pine, many of which have major limbs broken, presumably by strong icing and snow. Some sections of this ridge are completely inaccessible due to the density of trees. In some areas, snow has been seen accumulated under trees as late as July.

Intersecting Winters Ridge at the east-southeast is Purdie Ridge, an insignificant, heavily forested section. Proceeding on a straight southwest axis from Purdie Ridge is the "backbone" ridge of the area called Geghus Ridge (name origin unknown). This ridgeline, approximately nine miles long, is basically soft rolling hilltops covered with tight groves of California oak previously described. The ridgeline ascends from an elevation of around 3700 ft at its southwest end to nearly 5000 ft where it joins Purdie Ridge to the northeast. Under most conditions, the ridge is accessible with a conventional four-wheel-drive vehicle. Major cattle herds are also found in this area.

To the southeast of Geghus Ridge is a sharp drop (approximately a 40° slope) down to a narrow canyon locally referred to as Bear Trap Canyon. About two miles to the southeast of Geghus Ridge running parallel to the ridge are the last major mountains before the Antelope Valley begins (for discussion purposes, this will be referred to as the La Liebre Ridge). These mountains are the highest and most exposed of any in the study region. Varying anywhere from 4200 to 6000 ft, these mountains vary in topography from sharp jutting peaks covered with Ponderosa pine, to flat tabletops with sharply carpeted scrub oak and fields of rubble. Two major radio relay stations are located on these mountains, and as affirmation of the exposed ridgeline, these facilities can be prominently seen far into southeast Antelope Valley.

FIGURE 3. Prominent ridgelines of Tehachapi study region.

To the northwest of Geghus Ridge is another major ridgeline which juts out in a finger-like fashion almost midway along the axis of Geghus Ridge. This ridgeline, called Tunis Ridge, is named after the small wild cactus that once grew there. Tunis Ridge is very similar in topography to Geghus Ridge. Traversing approximately five miles, Tunis Ridge (although extending more westerly) is parallel to Winters Ridge, well exposed to the north-northeast about three miles away. Separating Tunis and Winters Ridge is a very deep and inaccessible arroyo which leads out to the northwest into the San Joaquin Valley.

On the basis of this topography, the mesoscale climatology obtained from previous reports and historical summaries from Bakersfield and Sandberg, two major wind-energy siting decisions were initially apparent. First, it would be useless to investigate the arroyos for wind-energy applications because of their disorientation to the prevailing north-northwest or summer convective southeast flows, and the inaccessibility of these regions. Second, with the exception of the tabletop fields of rubble on the La Liebre ridgeline, there is no single flat area which could support more than three or four large WECS. The only regions suitable for wind-energy applications would be the crests along the rolling hills of the Winters, Tunis, Geghus, and La Liebre ridgelines. From the use of 7.5-minute topographic maps, 16 sites were identified as "candidate" sites for WECS. These 16 sites are numbered on the relief map of Figure 4.

Considering the approximately 100-square-mile area comprising the study region, approximately 20 square miles encompassing the major ridgelines was considered suitable for WECS investigation, or one in five square miles of complex terrain. Based upon preliminary site inspections, it was estimated that the remaining one square mile of the five would, most probably, have one orographic feature which would make a local area suitable for WECS siting.

FIELD ASSESSMENT SURVEY PROCEDURES

Ideally, all 16 candidate sites selected by the initial screening could be instrumented with some type of wind monitoring instrumentation to record one year of continuous wind-speed and direction data used to decide the suitability of WECS in the region. Cost constraints may not permit this investigation; therefore, a technique was developed to

FIGURE 4. Candidate sites at the Tehachapi Study Region.

judge the merits and disadvantages of wind monitoring at each respective site. For each observational criterion -- namely, check anemometry, ecological features, and serviceability -- each site was ranked in order of merit for the observational criterion with respect to the other 15. The final result was a combination of three sets of rankings into a matrix to obtain, from best to worst, the sites most suitable for installing wind-monitoring stations.

For this particular siting exercise, seven wind-speed monitoring stations and two wind-speed/direction monitors, which operated for six months collecting continuous data on strip-chart recorders, were used. (The consequences of this selection of number and type of instrumentation are discussed in the conclusions.) The following discussions concern the field assessment survey conducted to determine the ranking of the candidate sites. The field survey was conducted during one week in late April 1979 when winds were judged to be from the predominant direction, as recorded by the National Weather Service at Sandberg.

Short-Term Field Measurement Survey

The short-term field measurement survey involved three methods for measuring low-level winds. The first task was to set up continuous wind-speed monitoring stations at strategic locations. These base stations would provide a history of the diurnal variation of wind during the one-week field survey. The base stations were equipped with a simple cup anemometer that outputs a continuous voltage onto a strip-chart. Each anemometer was mounted atop a guyed pole high enough to be unobstructed by any ground effect (usually between 20 to 33 feet depending on the site). The base stations were portable and each required approximately two man-hours to install. Base stations were strategically placed at five candidate sites: Site 9, Winters Ridge; Site 3, Tunis Ridge; Site 4, Geghus Ridge; Site 10, La Liebre Ridge; and Site 14, Grapevine Hill. Data were to be recorded simultaneously at all five sites.

Each site was chosen to provide a base measuring point on each major ridge and selected for field operations convenience and accessibility during the course of the one-week field survey.

The second check anemometry task involved the use of the TALA kite. The TALA kite was used to measure wind-speed profiles at all candidate sites. This instrument is composed of a small kite. The lift and drag forces exerted on the kite and string are transmitted to a recorder as line tension, which is converted to wind velocity via a correlation relationship. The basic measurement procedure has been verified in the National Bureau of Standards and NASA-Langley Air Force Base wind tunnels.

The kite, made of Tyvek by du Pont, is specially designed for high wind stability, with a tail stabilizing the kite. Specifications call for the kite to fly in winds from 7 to 12 mph (approximately 3 to 4 m/sec) and reach a peak altitude of 1000 ft in winds as low as 13 mph. Wind speeds up to 60 mph may be measured. The height of the kite is determined from the corrected line length and elevation; the latter being measured by an inclinometer. The azimuth angle gives the wind direction. The initial model employed a hand-held reel and calibrated spring in a measurement tube (TALA base unit 151). A newer model utilizes a strain gauge for measuring cable tension and an analog recorder (TALA base unit 152). The overall accuracy of the system has been investigated by work performed by Baker et al. (1979) in which systems similar to those used in this siting exercise were flown in winds from 17 to 35 mph against several towers equipped with anemometers at 17 to 200 m, and in controlled comparison experiments by WMO and NOAA/WPL, where TALA systems and other low-level sensing equipment were compared against a 300-m meteorological tower. The general consensus is the TALA system would give a reliable estimate of mean wind speeds. A forthcoming WMO monograph will provide more accurate system capabilities.

The plan of operation for wind-field assessment was the following:

In a given region of interest, a centralized location was chosen to provide representative readings of the prevailing wind flow. These centralized locations were where the continuous wind-speed monitors were operating. Each centralized location was designated the base station and equipped with a TALA base unit (Model 152) and radio communications. Two teams, also equipped with TALA kites (Model 151) and radio communications, then went to the other candidate sites in the region, coordinating time and altitude with the base station by radio communications. This procedure enabled wind-

profile transverses in the areas to be coordinated and compared to the base unit to identify temporal changes. Readings (10-minute averages) at 10-, 30-, 50-, and 100-m levels were attempted. Designated areas were visited several times during a working period of approximately one week.

The third check anemometry survey task involved the use of a portable, hand-held Gill Model 271000 propeller anemometer. The Gill hand-held anemometer is a precision airspeed-measuring instrument using a propeller molded in the form of a true generated helicoid and extensively tested in a wind tunnel by the manufacturer. The propeller rotates 0.96 revolutions per foot for all wind speeds above 4 ft per second. The propeller drives a miniature D.C. tachometer generator providing a voltage output directly proportional to the wind speed. These instruments were mounted on a short, approximately 10-foot, pole and the reading output on a pocket-size digital voltmeter with 5-second time constants.

The Gill propeller anemometer served two purposes: (1) to ensure that the TALA and portable base stations were operating properly, because of its accuracy and reliability; and (2) to estimate wind speed and direction at many spots on the side or top of an individual site where TALA kites would be difficult to use because of trees, sloping terrain, or light winds.

The results of the check anemometry are reported later.

Ecological Survey - Vegetation Flagging

The ecological survey was conducted at the same time the check anemometry measurements were made. At each candidate site several factors were noted about the surrounding trees. Many photographs were taken of bushes and trees exposed to persistently strong winds. Trees exhibiting a wind-swept form have most of the vegetation on the lee side of the main stem. From visual observation, measurements, and photographs, the various degrees of wind shaping, depending upon the wind's strength, can be obtained. Several investigators have developed a sensitive index defining, quantitatively, the degree of deformation for several types of trees. Relationships which correlate these tree rankings to an actual mean annual wind speed have also been

(a) R. M. Young Company, 2801 Airpark Drive, Traverse City, MI 49684.

developed. Although subject to some uncertainty (generally, about $\pm 20\%$), these correlations can only become more refined by the continual addition to the "data base" -- that is, more comparisons between recorded wind-speed and refinements in tree deformation indices. However, for this siting exercise, site comparison of the degree of tree deformation was the comparative factor used in ranking the 16 candidate sites. Since actual wind-speed measurements were made at nine of the sites, comparison of this data to predicted mean annual wind speeds obtained from vegetation indices correlation was an additional, valuable sidelight of this siting exercise.

Four vegetation indices were used to estimate mean annual winds from tree deformation. The two most significant indices for the type of vegetation seen in the study region were the Deformation Ratio and the Barsch Index. The following descriptions of these indices are paraphrased from a succinct account of their use given by Hewson et al. (1979).

The Deformation Ratio (D) is a measure of the degree of crown asymmetry and main stem deflection (see Figure 5). This index can be calculated from photographs of the tree taken normal to the prevailing wind direction or by direct examination of the tree. Photographs are taken from the direction perpendicular to the direction of maximum asymmetry. The angles α , β , and γ are measured on the photographs. The value of D is given by the equation:

$$D = \frac{\alpha}{\beta} + \frac{\gamma}{45^\circ} \quad 1 \leq \frac{\alpha}{\beta} \leq 5, \quad (1)$$

where α is the angle between the crown and the main stem on the leeward side, β is the angle between the crown and the main stem on the windward side, and γ is the angle of the main stem or trunk deflection.

For deciduous trees with hemispherical crowns the Deformation Ratio is given by:

$$D = \frac{a}{b} + \frac{\gamma}{45^\circ} \quad (1 \leq \frac{a}{b} \leq 5), \quad (2)$$

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$$D = \frac{a}{b} + \frac{\gamma}{45^\circ}$$

FIGURE 5. Deformation ratio definition.

where a is equal to the distance between the trunk and crown perimeter on the leeward side, and b is the distance between the trunk and crown perimeter at the same height on the windward side. The parameter V is the same as in Equation (1). The variables a and b are measured in the top third of the tree crown.

A special index of wind deformation for deciduous trees with hemispherical crowns was developed by Barsch (1963). The index has seven steps and six deformation degrees:

- 0 no visible influence of winds
- 1 bending of the outer small twigs
- 2 stronger twigs and branches are bent leeward
- 3 strongly expressed crown asymmetry
- 4 all branches are bent leeward or have a flag form
- 5 throwing with trunk bent toward the leeward
- 6 carpet-form trees with main stem or trunk growing along the ground

Two other indices, the Griggs index for pines, and the compression ratio for pines, were used at some of the candidate sites, although insufficient trees of this type were available to use the indices for intersite comparisons. The Griggs index is a subjective rating scale in which each tree is given a rating based upon the observational characteristics of the wind deformation. The Griggs index is similar to the Barsch index but is used for conifers. The compression ratio is an indicator of the influence of the wind on the trunk's cross-section asymmetry. The compression ratio is calculated by taking the annual increment of growth of the bole or trunk on the windward side of the tree.

The results of the ecological survey are reported in a later section.

Site Serviceability and Topography

Site serviceability rankings were a subjective appraisal of general exposure and land constraints. It was felt this third ranking criterion would be important for effective operation of field-monitoring equipment, and also would incorporate the non-meteorological points to be considered. Vandalism, right-of-ways, public visibility, and wildlife were all parameters to be considered. Because the siting exercise was conducted on Tejon

Ranch, land security was excellent and there was little restriction as to the placement of the wind-monitoring systems. Site serviceability, therefore, was based more on the candidate site's exposure and land area availability and access. The results of the site serviceability survey are reported later.

INSTRUMENTATION

Discussed here is the wind-monitoring instrumentation used at the nine selected stations. A description of equipment performance of all the instrumentation, including that used in the one-week field survey, is also discussed.

General Description

Because the intention of the study was to keep the instrumentation efficient but inexpensive, AeroVironment (AV) designed a 10-m wind-monitoring station which made use of readily available parts which could be assembled, erected, and maintained with simplicity. The 10-m wind-monitoring station, complete with hardware and a flow diagram, is depicted in Figures 6 and 7.

The wind sensor used was a Model W200S three-cup anemometer manufactured by WeatherMeasure Corporation (see Figure 8)^(a). The anemometer is mounted vertically on a stainless-steel shaft which rotates on ball bearings and is coupled to the permanent magnet of an A.C. generator. The anemometer cups and housing are polycarbonate; the cups are one-piece injection mold. Rotation of the cups occurs in direct proportion to wind speed. The A.C. generator, in turn, produces a voltage which is in direct proportion to the wind speed. The voltage produced by the generator is transmitted to a signal-conditioning unit made by AV. A Rustrak^(b), single-channel, strip chart recorder records the signal; power is supplied by a 12-volt rechargeable battery (Elpower Solid-Gel)^(c). The anemometer was mounted on a 30-foot telescoping guyed tower (one 16-gauge and two 18-gauge sections). The signal wires were run down the guyed tower and into a steel box containing the battery, the signal-conditioning unit, and Rustrak recorder.

The wind-direction sensor used was a Model W200D airfoil vane manufactured by WeatherMeasure Corporation (Figure 9). The vane is set on an anodized aluminum shaft

(a) WeatherMeasure Corporation, P.O. Box 41256, Sacramento, CA 95841.

(b) Rustrak Instruments Measurements and Control Systems Division, Gulton Industries, Inc., East Greenwich, RI 02818.

(c) Elpower Corporation, 2117-T S. Anne St., Santa Ana CA 92704.

List of equipment needed for portable
mast installation:

Telescoping mast
1/8-in. aircraft cable
Anemometer
Battery (dry or wet cell)
Instrument shelter (18 in. x 18 in. x 18 in.)
Lock
Three anchors (screw-in, dead head, etc.)
Three turnbuckles
Eighteen cable clamps
Three clevises (that connect turnbuckles
to anchors)
Six-in. pipe (1/2-in. diameter)
Two U-clamps (1-1/2-in. wide, 31 in. long)
Base mount for mast
Plastic jacketed two-wire electrical cable
20 AWG (35 ft or 45 ft)

FIGURE 6. Ten meter (33-ft) wind monitoring station and hardware list.

FIGURE 7. Flow diagram of 10-m tower measuring station.

FIGURE 8. Cup anemometer.

FIGURE 9. Wind vane.

mounted on Teflon-type thrust bearings and rotates so that the counterbalance always points into the wind direction. Attached to the lower end of the vane is a dual-precious metal (gold-silver alloy) wiper which contacts a precision potentiometer to form a voltage divider network. When a fixed D.C. voltage is applied to the potentiometer, the divider network produces an output voltage dependent upon the wiper (or vane) position. To indicate direction, power to the sensor and the returning voltage signal are transmitted by means of a three-wire cable, which exits through a hole in the bottom of the sensor housing. The output signal is stored on a Rustrak recorder. The sensor and instrumentation is mounted and stored on the same guyed tower-steel box configuration described for the wind-speed sensor.

Calibration

Although WeatherMeasure Corporation states, "These instruments (W200S, W200D) are factory calibrated and require no further adjustment," all new monitoring equipment were subject to a base check. Results from this test showed close agreement with instrument specifications.

Site Checks and Data Retrieval Plan

All sites were checked at three-week intervals by a two-man team from AV. The rugged terrain of the study region dictated the use of a four-wheel vehicle to gain access to the sites. To expedite maintenance tasks, sites were located near ranch roads, when possible.

The maintenance of on-site equipment was divided into three tasks:

1. Routine maintenance required to ensure proper operation of instruments; e.g., replacing strip charts and battery packs.
2. Preventive maintenance to maximize useful life of instruments; e.g., lubrication of bearings and replacement of anemometer cups.
3. Repair of malfunctioning equipment.

Equipment Performance

Wind-speed and wind-direction sensors performed within the performance specifications set by WeatherMeasure Corporation; however, previous experience dictated replacement of cup assemblies after extended use. WeatherMeasure was aware of cup assembly fatigue problems and provided AV with replacement assemblies at no charge. As a preventive maintenance measure, all anemometer cups were replaced after three months of field use.

When occasional complete failure of sensors was experienced, the sensors were replaced by a new unit from an in-house inventory maintained by AV. This equipment inventory played a vital role in insuring minimum data loss attributed to sensor malfunction. Field plugs and components were specifically designed in modules, so replacement in the field was simple as possible.

The batteries used were Elpower Rechargeable Solid-Gel batteries. In moderate temperatures, the AV-designed battery pack can provide power to a site for well over a month. Allocation of two sets of battery packs for each site permitted one set to be fully charged while the other was in use. This practice helped keep battery failure to a minimum. The batteries performed to specification in the field.

The recorders used were Rustrak miniature strip recorders. The units were plotted on pressure-sensitive rectilinear chart paper by making a series of dots forming a continuous line representing the parameters being monitored. Recording occurs when a mechanical chopper bar presses the stylus against the pressure-sensitive chart paper.

The Rustrak recorder was found to be an erratic piece of field equipment. Nearly all data loss attributed to instrument malfunction was a direct result of Rustrak recorder failure. A major problem was that the stylus would break or the gears would slip. The Model 388 dual-channel recorder gave persistent problems with its drive motors from the onset of the field program and was eventually termed cost ineffective and returned to the manufacturer for replacement by single-channel recorders. To keep pace with the high instrument attrition rate, a large inventory of recorders was required.

The TALA system proved to be a reliable field instrument for its basic application -- that is, it successfully measured wind velocity by exerting drag on the durable kite. Excellent results and field useability were obtained with the TALA Model 150 by observing the elongation of the spring scale, and obtaining the kite's elevation by recording the line count of kite twine let out.

However, problems occurred in proportion to the amount of analog equipment added to the basic unit. The TALA Model 151 is identical to the Model 150, with the exception of its recording capabilities. A strain gauge is included in the instrument's reel seat which outputs onto a Rustrak recorder. Both the strain gauge and Rustrak recorder were found to be too sensitive to the rugged treatment subjected to field-monitoring equipment. When they functioned, the calibration and paper-logging of the analog device and strip charts were more time-consuming than if the basic Model 150 was used. Also, since the instruments are used 8 to 12 hours per day, battery drainage became a problem.

The TALA Model 152 is a portable, recording, battery-operated, variable-altitude anemometer. Again, every addition to the basic Model 150 was more deleterious to field operation than a source of additional information. The strain gauge was erratic, as was the Rustrak recorder. (A major problem was that two parameters were designed to be recorded on the same strip chart; many times, data signals overlapped or went out of gain after a short period of time, sometimes in 5 minutes.) Batteries drained, the electric rewind motor was slow and sometimes too weak for the drag of the kite, and the mounting of the reel to the instrument casing was impractical.

Most of these design features would be useful, if they were operationally reliable. The manufacturer was attentive and responsive to design criticisms of these new instruments. Nevertheless, the TALA Model 150, in its simplicity, durability, and portability, proved to be the best of the three TALA systems tested in for this field survey.

Related Field Operations

The field program was conducted within the confines of Tejon Ranch which provides grazing land for several thousand head of cattle. During summer, cattle are allowed to roam throughout the ranch, permitting the cattle to be in frequent contact with the

monitoring sites. Barbed wire was draped around the sites to discourage the cattle from doing damage. However, the cattle ignored the barrier and entered the site to chew the instrument wires or scratch their backs against the guy wires. In one instance, the instrument tower was found stamped and the instrument destroyed. (It was also apparent some cattle mistook our white instrument boxes for salt licks.)

During fall, cattle were transported to corrals at lower elevations, thus reducing the number of cattle frequenting the sites. After that no cattle damage was reported.

During summer, a southeast flow can spawn thunderstorms over the Tehachapis. A lightning strike near a site can cause an overload of the signal conditioning circuitry and recording instrumentation failure. This was discovered during site maintenance checks. The modular signal conditioning device was replaced and the damaged console was returned to AV for repair.

The TALA systems were not used when thunderstorm activity was apparent. Vandalism was not a factor, and the Tejon personnel were very cooperative and cordial.

FIELD ASSESSMENT SURVEY RESULTS

Reported are results obtained from the one-week field assessment survey. The objective of the field survey was to select nine sites at which temporary wind-monitoring stations would be installed.

Short-Term Field Measurements

Results of the TALA kite measurements are summarized in Table 1. The table lists the candidate site number, elevation, time of measurement, mean velocity after ten minutes of sampling (one sample every five seconds), standard deviation of the mean, turbulence intensity (defined as the standard deviation divided by the mean), prevailing wind direction, and the temperature at the ground.

The mean velocities and turbulence intensities measured by the TALA kites and plotted for the selected sites in Figure 10 reflect strong and gusty winds over

TABLE 1. Summary of TALA wind speed measurements taken at candidate sites during 30 April 1979.

Candidate Site No.	Time (PST)	Elevation ft (m)	$\bar{V}$ mph (m/s)	σ	I	Direction (0-360°)	Temperature (° F)
1	1155	33 (10)	19.5 (8.7)	1.7	0.19	310	68
1	1145	99 (30)	19.5 (8.7)	1.9	0.22	310	68
1	1130	165 (50)	21.5 (9.6)	1.6	0.16	305	68
1	1120	330 (100)	21.0 (9.4)	1.6	0.17	305	68
2	1435	33 (10)	29.8 (13.3)	2.6	0.20	330	65
2	1450	165 (50)	30.2 (13.5)	3.4	0.25	330	65
2	1500	330 (100)	28.4 (12.7)	3.1	0.24	330	65
3	1000	33 (10)	17.9 (8.0)	1.6	0.22	315	66
3	0950	165 (50)	20.1 (9.0)	0.8	0.10	315	66
3	0940	330 (100)	21.5 (9.6)	1.0	0.11	315	66
4	1215	33 (10)	31.3 (14.0)	1.7	0.12	310	65
4	1200	99 (30)	30.0 (13.4)	1.7	0.13	310	65
4	1150	165 (50)	25.9 (11.6)	1.8	0.16	310	65
4	1135	330 (100)	27.1 (12.1)	1.3	0.11	305	65
5	1635	33 (10)	17.4 (7.8)	3.0	0.39	310	64
5	1625	99 (30)	22.6 (10.1)	3.3	0.33	305	64
5	1610	165 (50)	23.5 (10.5)	2.9	0.27	310	64
5	1600	330 (100)	28.0 (12.5)	3.3	0.26	285	64
6	1455	33 (10)	19.5 (8.7)	2.5	0.29	300	70
6	1445	99 (30)	20.4 (9.1)	2.2	0.24	300	70
6	1430	165 (50)	21.5 (9.6)	2.8	0.29	315	70
6	1419	330 (100)	23.3 (10.4)	2.4	0.23	310	70
7	1620	33 (10)	29.3 (13.1)	2.4	0.18	310	58
7	1555	165 (50)	34.4 (15.4)	3.1	0.20	305	58
7	1610	330 (100)	30.4 (13.6)	1.4	0.10	310	58
8	not accessible						
9	1855	33 (10)	22.6 (10.1)	1.8	0.18	305	50
9	1845	99 (30)	21.0 (9.4)	1.2	0.13	290	50
9	1835	165 (50)	19.5 (8.7)	1.0	0.11	305	50
9	1825	330 (100)	23.3 (10.4)	0.9	0.08	305	50

TABLE 1 (continued).

Candidate Site No.	Time (PST)	Elevation ft (m)	$\bar{V}$ mph (m/s)	σ	I	Direction (0-360°)	Temperature (° F)
10	1740	33 (10)	25.9 (11.6)	2.3	0.19	285	50
10	1735	99 (30)	25.5 (11.5)	2.7	0.24	300	50
10	1725	165 (50)	31.1 (13.9)	2.4	0.18	305	50
10	1715	330 (100)	33.8 (15.1)	1.1	0.07	305	50
11 not accessible							
12	1620	33 (10)	27.3 (12.2)	1.6	0.13	325	44
12	1830	165 (50)	28.6 (12.8)	1.0	0.07	320	44
12	1840	330 (100)	29.3 (13.1)	0.6	0.05	320	44
13 not accessible							
14	1430	33 (10)	13.2 (5.9)	1.4	0.24	315	45
14	1445	99 (30)	14.5 (6.5)	1.1	0.16	315	45
14	1445	165 (50)	15.0 (6.7)	1.1	0.17	315	45
14	1430	330 (100)	13.6 (6.1)	1.5	0.24	335	45
15	1140	33 (10)	38.3 (17.1)	1.4	0.08	305	46
15	1135	99 (30)	40.0 (17.9)	1.8	0.10	300	46
15	1125	165 (50)	36.9 (16.5)	1.7	0.10	310	46
15	1110	330 (100)	34.4 (15.4)	1.5	0.10	315	46
16	1220	33 (10)	33.1 (14.8)	2.2	0.15	310	64
16	1235	99 (30)	30.6 (13.7)	2.7	0.20	315	64
16	1245	165 (50)	31.8 (14.2)	3.1	0.22	315	64
16	1220	330 (100)	39.1 (17.5)	1.7	0.10	320	64

σ = standard deviation of $\bar{V}$

I = turbulence intensity

FIGURE 10. Velocity, direction, and turbulence profiles for selected sites using TALA measurements (1100 - 1700 PST 30 April 79)

the study region. At candidate sites 2, 4, and 15, surface winds (10-m level) are of higher velocity than the winds aloft at 100 m. At candidate sites 1, 2, 7, 14, and 15, the highest recorded winds were between 30 and 50 m.

Such short-term readings need to be placed in perspective of the diurnal variation of the wind. As emphasized in the program procedure, the meteorological situations chosen for the field survey were of fairly neutral stability and free from frontal systems or significant mesoscale disturbances. Under these conditions, the diurnal pattern of wind-speed should have a fairly consistent pattern: strong, gusty winds occurring in the early morning, rapidly decaying with solar heating at daybreak; constant, though relatively light winds through the afternoon with strong drainage flow conditions driven by radiative cooling after sunset; strong nocturnal winds after midnight. With these conditions being the case, it was anticipated that by conducting all site-comparative wind measurements within a four- to six-hour band from late morning to late afternoon, the diurnal variation would be at its minimal. The five portable anemometers installed for the duration of the field survey were to obtain hourly averages to check this assumption.

Table 2 summarizes the wind speed data recorded by strip chart recorders at Sites 3, 4, 10, and 14 for a typical day in-the-field survey. (The recorders at candidate sites 4 and 9 malfunctioned, resulting in loss of data.) Also listed is data obtained from Sandberg Weather Station for the same day. Figure 11 shows the diurnal cycle for this data. Sandberg shows more hour-to-hour variation in wind speed because, unlike the portable anemometers, the velocities reflect 5-minute readings taken hourly, as opposed to 60-minute averages.

For all intents, it was judged that although there was some diurnal variation during the measurement period -- especially at Site 3 which is an isolated hill adjacent to a deep arroyo -- no attempt would be made to scale or correct TALA velocity measurements for this effect. Concerning the mean velocity vertical profile, numerous investigations have been undertaken of airflow over hills based on atmospheric observations of small-scale embankments or wind tunnel measurements extrapolated to atmospheric scales. Field data is very limited so present measurements, although restricted in scope, are noteworthy as measurements in complex flow.

TABLE 2. Summary of hourly averaged wind speeds obtained from portable recording stations at selected candidate sites in the Tehachapi study area.

Monday, April 30, 1979					
Hour (PST)	Sandberg* (10 m)	Mean Velocities at Candidate Site (m/sec)			
		No. 3 (10 m)	No. 4 (3 m)	No. 10 (3 m)	No. 14 (3 m)
0100	10.3	7.2	8.9	9.4	5.8
0200	4.5	6.7	10.3	9.8	4.5
0300	4.0	8.0	10.3	8.9	3.6
0400	7.6	6.7	9.8	8.0	5.4
0500	5.4	5.8	9.4	8.5	3.1
0600	1.8	5.8	8.9	8.0	2.2
0700	3.1	6.3	8.0	7.6	2.7
0800	1.7	6.2	7.9	7.6	2.7
0900	6.3	7.2	8.9	7.2	3.1
1000	7.2	7.2	9.8	7.6	4.5
1100	8.9	8.0	10.3	7.6	
1200	9.8	8.9	10.3		3.6
1300	8.5	9.8		8.0	
1400	4.9	11.2			
1500	6.7	11.2			3.1
1600	7.6	10.7			3.1
1700	7.2	11.2		8.9	2.7
1800	5.5	12.5		10.3	5.4
1900	5.8	11.6		10.3	3.1
2000	8.5	13.4		12.1	5.4
2100	5.8	12.5		10.7	6.3
2200	9.4	10.3		10.3	8.0
2300	8.0	10.7		10.7	7.6
2400	6.3	10.3		8.9	6.3

*Sandberg data based on five-minute observations each hour.

FIGURE 11. Diurnal cycle of wind speed for selected sites (data from Table 2).

Vertical velocity profiles are usually described by a power law relation, $(U_{100}/U_{10}) = (100/10)^\alpha$, where U_{100} , U_{10} are mean velocities at 100-m and 10-m heights, respectively, and α is an empirical value. The power law wind-speed profile was not used as a comparative criterion among candidate sites because the differences were too small given the measurement accuracy. It is interesting to note that most values for α are near zero, which means a more uniform wind profile than what would be obtained, assuming the conventional 1/7 power law wind-speed profile.

Another application of the TALA system novel to this study was for mean velocity horizontal profiles -- that is, to use the TALAs to locate the strongest region of local topographic speed-up at the 50-m height, which is approximately hub height for large WECS. The mean velocities obtained for the 50-m level will then be a justifiable criterion for site comparisons.

Table 3 gives the highest mean wind recorded from the TALA system at each site; the ranking of the sites based on this column; the recorded velocity at the 50 m level; and the ranking based on that height. The rankings are very similar, with only Sites 4 and 9 showing a ranking difference of more than one place. Also listed is the 50-m turbulence intensity level and its ranking. The overall ranking was determined by summing the best two of three rankings for each site, then averaging. This was decided because it was felt a site should have at least two of the three criterion for a good indication of wind.

In summary, given the time and physical constraints of field measurements, it would be of more significance to take as many readings as possible at the 50-m level.

Ecological Survey Results

One major issue in the use of trees as a local climatic indicator is that tree deformation indices are an indication of annual, seasonal, or peak gust wind speed statistics. The subject has been reviewed and studied in length by Wade and Hewson (1979). In their work, three indices -- the Griggs-Putnam index, the deformation ratio, and the comparison ratio -- were determined at over 60 locations which had Douglas fir and/or Ponderosa pine and a year or more of wind data. These indices were calibrated against a number of wind characteristics, including mean annual wind speed, mean growing-season wind speed, mean nongrowing wind speed, and percent of winds from the

TABLE 3. Short-term wind measurement.

Site	$\bar{V}_{50}$ (m/sec)	Rank	$\bar{V}_{peak}$ (m/sec)	Rank	I_{50}	Rank	α	Overall* Rank
1	9.6	9	9.6	10	0.16	4	0.03	9
2	13.5	5	13.5	6	0.25	9	-0.02	7
3	9.0	10	9.6	10	0.10	2	0.11	8
4	11.6	7	14.0	5	0.16	4	0.06	6
5	10.5	8	12.5	8	0.27	10	0.20	10
6	9.6	9	10.4	9	0.29	11	0.08	12
7	15.4	2	15.4	3	0.20	7	0.02	3
8	-	-	-	-	-	-	-	-
9	8.7	11	10.4	9	0.11	3	0.11	8
10	13.9	4	15.1	4	0.18	6	0.11	5
11	-	-	-	-	-	-	-	-
12	12.8	6	13.1	7	0.07	1	0.03	4
13	calm	13	calm	12	calm	12	-	13
14	6.7	12	6.7	13	0.17	5	0.01	11
15	16.5	1	17.9	1	0.10	2	-0.05	1
16	14.2	3	17.5	2	0.22	8	0.07	2

*Determined by summing the best two of three rankings for each site then averaging.

$\bar{V}_{50}$ = mean velocity at 50-m height

$\bar{V}_{peak}$ = peak velocity measured between 10- and 100-m heights

I_{50} = turbulence intensity at 50-m height

α = power law exponent $V_{100}/V_{10} = (100/10)$

prevailing wind direction. The characteristic most highly correlated with these indices was the mean annual wind speed. The result was preliminary, though, and much more research into the biological effects of wind on trees is needed.

Table 4 summarizes the vegetation indices and predicted mean annual wind speeds. Listed are the site number, Barsch index (B), deformation ratio (D), Griggs index (G), and the respective mean annual wind speed velocity correlations (V_b , V_d , and V_g). The last column is the average mean annual wind speed (velocity) based upon all indices at a particular site.

The predicted mean wind speeds are primarily based on two indices (B and D for oaks) which have not yet been validated. With this in mind, the predicted mean wind speeds will have a confidence band of near 50%. Three locations had oak and conifers. Based upon the conifer indices, a comparison indicates, for the most part, lighter predicted winds. The average predicted wind for the three locations using conifers is 7.2 m/sec and using deciduous indices is 7.8 m/sec. Greater confidence should be placed on conifer trees since they are more sensitive to winter winds than deciduous trees (Wade, 1979)^(a). A benefit of the one-year wind assessment study in the Tehachapi region will be more tree data and, hence, a better confidence band for the Griggs and Barsch indices for California oak.

Table 5 gives the ecological survey ranking results. Listed is the deformation ratio and its ranking, and the averaged velocity from all indices and its ranking. To obtain the ranking used for the site-selection criterion it was decided that the velocity average correlations be used as the first consideration, then use the deformation ratio as a "tie-breaker." In this way, more significance was given to the deformation ratio reflecting the more quantitative nature of the index.

Site Topography and Serviceability Results

An equally important factor in site selection is the availability of land, site accessibility, and the general exposure of the site vicinity. Table 6 summarizes the factors for each candidate site. These characteristics were observed during the field program and point out the savings in time and expense which could be gained by a

^(a) Personal communication.

TABLE 4. Vegetation analysis for Tehachapi study region.

Candidate Site No.	Barsch* Index B	Correlated Annual Velocity V_b mph (m/sec)	Deformation Ratio D	Correlated Annual Velocity V_d mph (m/sec)	Griggs* Index G	Correlated Annual Velocity V_g (m/s)	$V_b + V_d + V_g$ 3 mph (m/sec)
1	3 (3)	12.8 (5.7)	4.0	14.8 (6.6)			13.9 (6.2)
2	3 (3)	12.8 (5.7)	2.4	11.0 (4.9)			11.9 (5.3)
3	3 (3)	12.8 (5.7)	4.1	15.0 (6.7)			13.9 (6.2)
4	4 (2)	15.7 (7.0)	5.0	17.2 (7.7)			16.6 (7.4)
5	4 (1)	15.7 (7.0)	5.0	17.2 (7.7)			16.6 (7.4)
6	3-4 (3)	14.3 (6.4)	4.7	16.3 (7.3)			15.0 (6.7)
7	4 (1)	15.7 (7.0)	5.0	17.2 (7.7)			16.6 (7.4)
8	4 (1)	15.7 (7.0)	5.0	17.2 (7.7)	4 (2)	6.4	15.9 (7.1)
9	2 (1)	9.8 (4.4)	1.4	8.7 (3.9)	3 (1)	5.5	10.5 (4.7)
10	4	15.7 (7.0)	5.0	17.2 (7.7)	5,6 (2)	7.9	17.0 (7.6)
11							
12							
13	2 (1)	4.0 (8.9)	1.7	4.3 (9.6)			9.4 (4.2)
14	3 (2)	5.7 (12.8)	2.5	5.1 (11.4)			12.1 (5.4)
15	5 (2)	8.3 (18.6)	6.1	8.8 (19.7)	5 (1)	7.4	17.9 (8.0)
Sandberg Mtn.	2	4.4 (9.8)	1.6	4.2 (9.4)			

*Number ( ) of trees in sample.

TABLE 5. Ecological survey ranking results.

Candidate Site	Average Velocity From All Vegetation Indicators (m/sec)	Rank *	Deformation Index	Rank	Overall Rank
1	6.2	6	4.0	5	7
2	5.3	8	2.4	7	9
3	6.2	6	4.1	4	6
4	7.4	3	5.0	2	3
5	7.4	3	5.0	2	3
6	6.7	5	4.7	3	5
7	7.4	3	5.0	2	3
8	7.1	4	5.0	2	4
9	4.7	9	1.4	9	11
10	7.6	2	5.0	2	2
11	-	-	-	-	-
12	-	-	-	-	-
13	4.2	9	1.7	8	10
14	5.4	7	2.5	6	8
15	8.0	1	6.1	1	1
16	-	-	-	-	-

* Ranking is based from 1 to 12 by highest to lowest wind velocity for each respective category. Overall ranking is based on velocity average correlations as the first step (column 2) and deformation index rank (column 5) as a tie-breaker.

TABLE 6. Site topography and serviceability.

Candidate Site No.	Comment	Estimated Usable Land Area (m ²)	Site Elevation (m)	Rank
1	Located on the far end of Tunis ridge-line. Good exposure to San Joaquin Valley (NW); 4-wheel drive vehicle required.	12,000	1295	7
2	Located in a saddle on Tunis Ridge. Good exposure to NNW; poor exposure other directions; 4-wheel drive vehicle required.	6,000	1370	10
3	Centrally located on Tunis Ridge. Good northerly exposure; poor exposure other directions; 4-wheel drive vehicle required.	6,000	1510	8
4	Located at juncture of Tunis and Geghus ridgelines. Excellent exposure to NW; 4-wheel vehicle required; grounds soft during wet seasons.	20,000	1580	9
5	Located on a spur off Purdie Ridge. Excellent WNW exposure; poor exposure other directions; bad accessibility.	10,000	1670	12
6	Located in a saddle on Geghus Ridge. Good exposure to S; heavily vegetated.	54,000	1330	6
7	Located on a spur off Geghus Ridge at head of a canyon. Good exposure to W; 4-wheel vehicle required.	35,000	1490	11
8	Located on apex of Winters Ridge. Good exposure to NE and SW; 4-wheel vehicle required; inaccessible during wet seasons.	24,000	1950	15

TABLE 6 (continued).

Candidate Site No.	Comment	Estimated Usable Land Area (m ²)	Site Elevation (m)	Rank
9	Centrally located on Winters Ridge. Good exposure to N and S; 4-wheel drive vehicle required; inaccessible during wet seasons.	12,500	1780	13
10	Located on SW end of La Liebre Ridge. Excellent exposure to NW and SW; 4-wheel vehicle required.	64,500	1645	1
11	Located on NE end of La Liebre Ridge. Good exposure to NW and SW; poor accessibility.	6,000	1990	16
12	Located on W end of Winters Ridge. Good exposure to NNW and S; 4-wheel vehicle required; inaccessible during wet seasons.	12,000	1600	14
13	Located at N tip of Grapevine Peak. Good exposure to NW; 4-wheel drive vehicle required for access during wet seasons.	7,800	1450	5
14	Centrally located on summit of Grapevine Peak. Good exposure to N; 4-wheel drive vehicle recommended for access during wet seasons.	96,000	1400	4
15	Located on NE end of La Liebre Ridge. Excellent exposure to NW and SE; 4-wheel drive vehicle required; poor accessibility during wet seasons.	10,000	1815	3
16	Located in NW end of Antelope Valley. Valley. Excellent exposure to all directions; 4-wheel drive vehicle required for access during wet seasons.	200,000	990	2

thorough investigation of a remote area using all available data and information, such as Landsat photographs and communication with local residents. The Tejon Ranch Company was extremely helpful in this respect.

Station Selection

The ranking matrix from which the nine wind monitoring stations were selected is given in Table 7. Listed are the candidate site number, and the survey rankings for vegetation, short-term measurements, and topography. The total ranking was obtained by the average of the best two out of three surveys for each site. "Ties" were broken by considering the wind survey rank. The final column lists the sites at which the wind-monitoring stations were eventually installed.

The purpose of the ranking was to set up stations at the nine top-ranked candidate sites. Site 7, with a total ranking of 4, was not a practical siting choice due to the large herd of cattle grazing in that area which would have trampled the tower. Because of its roads, Site 5, with a ranking of 8, was totally unacceptable by the time instrumentation was to be erected. Thus, the next best site was chosen, Site 9, as it was necessary to have some input from Winters Ridge, although Site 8 was initially selected to obtain representative flows from Winters Ridge but fell victim to cattle.

The nomenclature used for selected sites is AV1 through AV9. AV is an abbreviation for AeroVironment Inc. Figure 12 is a location map of the nine wind-monitoring stations. Site photographs are given in Appendix A.

TABLE 7. Ranking matrix for Tehachapi study region.

Candidate Site No.	Survey				Site Selection
	Vegetation	Wind	Topography	Total * Ranking	
1	7	9	7	10	AV8
2	9	7	10	12	—
3	6	8	8	9	AV1
4	3	6	9	5	AV7
5	3	10	12	8	—
6	5	12	6	6	AV6
7	3	3	11	4	—
8	4	—	15	15	—
9	11	8	13	14	AV3
10	2	5	1	2	AV9
11	—	—	16	—	—
12	—	4	14	13	—
13	10	13	5	11	—
14	8	11	4	7	AV4
15	1	1	3	1	AV2
16	—	2	2	3	AV5

* Total ranking was obtained by average of the best two of three surveys for each site. Ties were broken by considering the wind survey rank.

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SIX-MONTH DATA RESULTS

DATA ANALYSIS

The results from wind measurements obtained during the program year are reported in this chapter. Appendix B tabulates wind data and Appendix C tabulates the data analysis for the six-month measurement period.

Data Analysis Procedures

These analysis steps were applied to data from most sites:

Step 1. Monthly summaries for wind speed (and direction, if applicable) were prepared for each site, and are tabulated in Appendix B. The wind-speed summaries yield the following:

- Average wind speed for the month.
- Standard deviation of wind speed for the month.
- Daily average wind speed.
- Daily hourly peak wind speed.

The wind-direction summaries yield the following:

- Prevailing-direction (16 compass points) diurnal-variation averages for the month.
- Prevailing direction for the month.
- Prevailing directions for each day.

Step 2. For sites which record both wind-speed and wind-direction, a joint frequency distribution was prepared, and tabulated in Appendix C.

The joint frequency distribution yields the following information:

- o Average wind speed for the time period by direction (16 compass points).
- o Frequency distribution of direction.
- o Wind-speed frequency distribution by a direction.
- o Wind-speed frequency distribution for all directions.

Step 3.

A wind- and power-frequency distribution analysis is generated. Wind speed is in 1-mile/hr (0.45 m/s) increments, and power is estimated for a hub-height-level of 50 m using a power law velocity profile and standard air-density corrections for site altitude as defined below. Tables for these values are reported in Appendix C.

- o Estimation of 50-m-level wind speed

$$V_{50} = V_{10} \left\{ \frac{50}{10} \right\}^{\alpha}$$

$$V_{50} = \text{50-m-level wind speed}$$

$$V_{10} = \text{10-m-level wind speed}$$

$$\alpha = \text{power law exponent (assumed to be 0.14)}$$

- o Air density corrections

$$\rho = \rho_{SL} \left\{ \exp \left(-Z/8435 \right) - (\bar{T} - 15)/288 \right\}$$

$$\rho_{SL} = \text{sea level density}$$

$$Z = \text{site altitude above sea level (meters) plus hub height}$$

$$\bar{T} = \text{temperature in } ^{\circ}\text{C}$$

- o Power calculation at 50-m height

$$\frac{\text{Power}}{\text{Unit Area}} = 1/2 \rho V^3$$

$$P/A = 1/2 \rho V_{50}^3$$

Step 4: An estimate of wind-turbine power unit energy output is made using hypothetical wind-turbine specifications given in Figure 13. Results of these analyses applied at specific sites of interest are presented in a later chapter.

MEAN WIND SPEEDS

Table 8 is a summary of the monthly average wind speeds. Figure 14 plots the mean monthly hourly wind speed for selected stations and the historical summaries for Bakersfield and Sandberg. All mountainous-located monitoring stations exhibited a monthly wind pattern similar to Sandberg station -- a characteristic drop in mean speed during late summer and a steady rise in mean speed with the onset of winter. Although data have not been collected for late winter-early spring, an initial assumption is the monitoring stations would also be characteristic of Sandberg -- a leveling off of high winds throughout winter and into early spring, with a sharp drop of wind speed with the onset of summer. Site 5 in the Antelope Valley probably would not see this leveling off of high winds throughout winter but more likely would see a gradual drop during winter and a sharp increase with the onset of spring.

Data are being obtained to verify the predicted trends for the winter and spring seasons.

FREQUENCY DISTRIBUTIONS

Various statistical distributions have been used to approximate wind speed frequency distributions. Cliff (1977) and Justus et al. (1978) provide excellent reviews of various distributions based on the bivariate normal distribution.

Briefly reviewing these works, Justus simplifies the five parameter bivariate normal distribution into a unimodel (Weibull) distribution. The Weibull distribution requires only two parameters, the mean and the variance. Cliff bases his analysis on a special case of

Configuration No.	I	II	III
Rotor Diameter meters (feet)	91.0 (300)	91.0	91.0
Cut-In Speed m/sec (mph)	6.3 (14)	6.3 (14)	6.3 (14)
Rated Speed m/sec (mph) at hub height	12.4 (27.7)	12.4 (27.7)	14.3 (32)
Cut-Out Speed m/sec (mph)	20.1 (45)	26.8 (60)	25.5 (57)
Rated Power kW	2500	2500	4000

FIGURE 13. Wind turbine configurations.

TABLE 8. Summary of monthly average wind speed (in mph) at monitoring stations in the Tehachapi study area (May-November 1979).

Site	Month											
	1979								1980			
	M	J	Jl	A	S	O	N	D	J	F	M	A
1	5.3	5.2	5.1	4.7	3.9	5.6	10.0					
2	-	-	18.4	15.6	11.1	15.7	16.5					
3	7.0	-	6.7	7.0	8.1	8.4	8.7					
4	6.2	6.5	5.5	4.6	5.8	7.1	10.4					
5	-	-	10.2	9.5	5.7	10.3	8.4					
6	-	8.6	7.9	6.8	5.0	8.4	12.4					
7	-	-	11.6	9.5	8.5	10.6	11.4					
8	-	-	3.7	4.0	4.0	6.2	10.4					
9	11.7	14.5	13.3	11.1	10.3	13.2	17.2					
Bakersfield*	8.0	8.0	7.2	6.8	6.3	5.6	5.1	4.9	5.2	5.8	6.6	7.2
Sandberg**	15.1	15.1	12.8	12.6	12.9	14.9	16.1	16.4	17.0	16.4	16.7	16.4

*37-year mean (1942-1979)

**30-year mean (1948-1978)

FIGURE 14. Comparison of mean hourly averages taken in Tehachapi Mountains with long-term mean hourly averages from Sandberg and Bakersfield stations.

the Weibull distribution, which reduces the parameter characterization to a single input, the mean. This is the Rayleigh distribution. Both researchers support the hypothesis that higher mean wind speeds tend to have a Rayleigh frequency distribution (annual mean greater than 4.5 m/sec (10 mph)).

The Rayleigh distribution is

$$P(v) = \frac{V \pi}{2\bar{V}^2} \exp \left\{ -\frac{V^2 \pi}{4\bar{V}^2} \right\}$$

where

$P(v)$ = frequency distribution of wind speed
 V = wind speed
 $\bar{V}$ = long-term average (mean) wind speed

Cliff found that when calculating the long-term (annual) average extractable power by the measured wind speed probability distribution and by an assumed Rayleigh distribution, the Rayleigh distribution provided reasonable estimates of the average extractable power even though the actual distribution in some cases differed substantially from a Rayleigh distribution.

If this is the general case then for wind energy purposes data could be collected using a simple wind-run type anemometer. This would obtain the integrated average of the mean wind speed for a long averaging period (one month, or one year). A Rayleigh wind speed distribution would then be assumed, and results produced would have comparable monthly or annual wind energy statistics as that obtained by more costly time-series data collection systems.

A comparison of power output capacity generated by measured data and by Rayleigh distributions is done in a later chapter.

Figures 15 through 23 are plots of the actual frequency distributions for the month of November with an overlay of the Rayleigh distribution. November data were chosen

FIGURE 15. Frequency distribution for November 1979 - AV Site 1 (Tunis Ridge)

FIGURE 16. Frequency distribution for November 1979 - AV Site 2 (La Liebre Ridge).

FIGURE 17. Frequency distribution for November 1979 - AV Site 3 (Winters Ridge).

FIGURE 18. Frequency distribution for November 1979 - AV Site 4 (Grapevine Ridge).

FIGURE 19. Frequency distribution for November 1979 - AV Site 5 (Antelope Valley).

FIGURE 20. Frequency distribution for November 1979 - AV Site 6 (Geghus).

FIGURE 21. Frequency distribution for November 1979 - AV Site 7 (Tunis-Geghus).

FIGURE 22. Frequency distribution for November 1979 - AV Site 8 (Tunis Ridge).

FIGURE 23. Frequency distribution for November 1979 - AV Site 9 (La Liebre Ridge).

because of high monthly averages and data recovery greater than 90 percent at wind monitoring stations AV2 through AV9.

Figure 15 is the plot for Station AV1 where data recovery was only 60 percent, thus resulting in an uncharacteristic frequency distribution curve. Stations AV2 (Figure 16), AV4 (Figure 17), and AV8 (Figure 21) are reasonably approximated by the Rayleigh distribution.

Figure 24 is a similar plot of the actual frequency distribution for the period December 1977 - November 1978 at the Sandberg Weather Station. The data are the last year of continuous data taken at that monitoring station, and are based on three-hour averaged mean winds derived from hourly observations.

FIGURE 24.

Frequency distribution for the period December 1977 - November 1978 for Sandberg Weather Station - based on three-hour averaged mean wind speed (knots) at 33-feet A.G.L.

WIND-FIELD ANALYSIS OF THE TEHACHAPI MOUNTAIN STUDY REGION

The two wind characterizations required for WECS siting are the joint-frequency distributions of wind-speed and wind-direction, and the seasonal and annual variations of wind speed. This chapter examines the local mean airflow and its strength and variation over the study region. This is done by (1) characterizing the regional wind field into basic flow patterns observed over the Tehachapi study area during the six-month program; (2) comparing the recorded diurnal patterns from the nine wind-speed stations with the general weather patterns; and (3) analyzing these flow patterns and trends in view of the historical climatology of the Southern California region.

GENERAL METEOROLOGICAL CONDITIONS

The primary determining factor of Southern California weather is the location and strength of the semi-permanent, eastern-Pacific, high-pressure cell and a thermal low-pressure cell which occur over the southwestern desert area. In the Tehachapi Mountains, these phenomena do not produce the strong winds documented in other desert areas of Southern California (Zambrano et al., 1980) because the temperature gradient across the Tehachapis acts to diminish the pressure gradient that drives the prevailing flow. With this in mind, a review of upper atmospheric winds and surface synoptic features may provide insight into wind speeds observed along the ridgelines of the Tehachapi region.

LARGE-SCALE SYNOPTIC PATTERNS

Figures 25 and 26 show the location and size of the pressure cells which are the typical dynamic mechanisms influencing winds of Southern California. Figure 27 was obtained by summarizing 20 years of monthly weather data from the National Oceanography and Atmospheric Administration (NOAA) (1957-77) and illustrates the general trend of the centers of high and low pressure cells.

The basic flow in the free air above Southern California is from the west or northwest during most of the year. The complex terrain within the state, however, is

FIGURE 25. Normal January sea level pressure (solid lines) in millibars and temperature (dashed lines) in °F. (Source: Smagorinsky, 1953).

FIGURE 26. Normal July sea level pressure (solid lines) in millibars and temperature (dashed lines) in °F. (Source: Smagorinsky, 1953).

FIGURE 27. Trends of high and low pressure cell movement obtained from 20 years of monthly weather summaries.

responsible for deflecting these winds and, except for the immediate coast, wind direction is likely to be more a product of local terrain than it is of prevailing circulation (see NOAA, 1978).

During summer and early fall free air flow can be channeled northwest up the axis of the San Joaquin Valley. The Tehachapi Mountains are located at the terminus of the valley and are thus recipient of a strong up-valley flow. At other times during summer and early fall, an inversion layer caps the San Joaquin Valley and inhibits the flow of air over the Tehachapi Mountains. During late evening, the high ridges of the Tehachapis can be exposed to upper-level flows. Periods of high winds on these ridges correspond to strong upper-level winds associated with weather fronts and active upper-level atmospheric circulation. These winds tend to be strongest during the winter and spring seasons when the atmospheric circulation is most active. Historically, Sandberg Station experiences the strongest winds during this period.

BASIC FLOW PATTERNS

The intensity and direction of air movement over the Tehachapis is governed by large-scale synoptics prevalent in the region and altered by local terrain. Winds tend to be strongest on well-exposed ridgelines, at the heads of canyons, and on the fringes of the Antelope Valley. Flow is generally perpendicular to the primary axis of the Tehachapi Mountain chain. Four basic flow patterns were observed and are now discussed.

1. Summer Northwest
2. Winter Northwest
3. Summer Southeast
4. Santa Ana

Summer Northwest Flow

The northwest flow is the most dominant flow pattern prevailing over the Tehachapi Mountains during summer. The northwest-southeast orientation of the San Joaquin Valley channels the up-valley northwest flow directly into the Tehachapi range.

The height of the inversion layer in the San Joaquin Valley has a significant role in the diurnal wind variation in the Tehachapi Mountains. The mean top of the inversion layer in the San Joaquin Valley reaches an average minimum height of 1700 m during May and a minimum of 500 m during December (Franson, 1979). Since the altitudes of the ridges being studied range between 1200 m and 1900 m (with the Antelope Valley site at 990 m), diurnal heating and cooling expose the sites to varying degrees of inversion layer effects. Coupled with small scale terrain features, strikingly local diurnal wind-speed patterns result at each location in the Tehachapi study region.

Based on observations during site monitoring, the following scenario was drawn for summer northwest flow.

The temperature inversion in the morning near Bakersfield in the San Joaquin Valley is at a lower elevation than the ridges in the Tehachapi study region. This is evident by the smog trapped in the valley. The temperature inversion marks the top of the planetary boundary layer (PBL) over the San Joaquin Valley. Within the PBL the flow is turbulent and above it is nonturbulent. In the morning the smog is not flowing over the Tehachapis indicating that the valley PBL air is blocked and has insufficient kinetic energy to cross the potential energy barrier that the Tehachapis represent. The nonturbulent air above the valley PBL moves toward the Tehachapis. As this air interacts with the ridges, shear generated turbulence establishes the PBL over the Tehachapis. There are no measurements to verify how thick the PBL is over the Tehachapis. An initial estimate is that it may be several hundred meters thick by the time it reaches La Liebre Ridge.

As morning heating begins the PBL over the San Joaquin Valley begins to grow. As the valley PBL heats up and gains momentum by entrainment of the high mountain air above the inversion the valley air becomes no longer blocked by the ridges and so flows over the Tehachapis.

In general, minimum wind speeds occur in early afternoon. In the evening, radiative cooling at the earth's surface causes a near surface temperature inversion to form. The height of the PBL resets to near the surface, and the force balance on the winds at ridge level changes rapidly. The strongest winds, in general, occur after midnight. After

midnight, there can be a small increase in wind speed caused by an upper level jet which flows through the San Joaquin Valley.

Based on the prevailing wind direction data from Bakersfield Weather Station and AV Station 9 (La Liebre Ridge), July 28, 1979, experienced summer northwest flow. Table 9 gives the hourly averaged wind speed data for selected stations (keeping in mind that the station columns are arranged left-to-right to correspond with wind flow from the northwest).

Station records from this day appear to agree with the scenario drawn for summer northwest flow. There is a diurnal trend towards strong nighttime winds which diminish with diurnal heating then pick up again with early evening cooling. Stations on the La Liebre ridgeline (AV2 and AV9) are significantly stronger than other stations. This is probably due to a number of factors, most notably excellent exposure to the northwest and the sharp drop to the Antelope Valley in the southeast.

The lack of high wind statistics at Winters Ridge (AV3), Tunis Ridge (AV1), Grapevine (AV4), and Geghus Ridge (AV6) during episodes of prevailing summer northwest flow was an early signal in the six-month data period that the wind resource may be less than expected. This is significant when reviewing the historical data from Sandberg and Bakersfield. Sandberg experiences northwest or north-northwest flow approximately 50 percent of the summer; Bakersfield about 80 percent of the summer.

Figure 28 is a photo taken of La Liebre Ridge from the Antelope Valley looking to the northwest. Figure 29 is a photo taken of the San Joaquin Valley from La Liebre Ridge looking to the northwest.

Winter Northwest Flow

The winter season sees a cold lid of air clamp down on the San Joaquin Valley. The top of the inversion layer averages 460 m, (Franson, 1979) well below the ridges of the Tehachapis (1200 m to 1800 m). This inversion elevation results in the ridges exposed to upper-level flow, which based on climatological summaries from Sandberg Weather Station (NOAA, 1978) is exceptionally strong during the winter season. Strongest winds

TABLE 9.

Summary of wind speed, wind direction, and temperature data obtained in the study region on July 28, 1979 during summer northwest flow conditions. (All wind speeds are in mph at 33 feet AGL.)

Hour (PST)	Bakersfield			(Grape- vine) AV4	(Tunis) AV1	(Winters) AV3	(Geghus) AV6	(Tunis- Geghus) AV7	(La Liebre)		(La Liebre) AV2	(Antelope Valley) AV5
	T(°F)	Dir.	Speed						AV9	AV9 (Dir.)		
0100	75	N	5	7	8	12	12	17	19	WNW	30	16
0200				7	6	11	12	18	19	WNW	32	20
0300				4	3	11	13	15	20	WNW	33	20
0400	73	S	5	6	4	12	14	15	18	WNW	31	18
0500				5	4	10	11	13	17	WNW	28	14
0600				5	6	13	9	12	18	WNW	28	12
0700	76	SE	6	5	6	13	7	12	18	NW	26	12
0800				3	6	12	6	12	17	NW	25	14
0900				3	6	10	5	13	15	NW	25	13
1000	88	NW	5	4	6	8	4	15	16	NW	23	13
1100				5	7	6	6	16	15	NW	24	13
1200				6	9	7	6	16	15	NW	25	14
1300	95	N	7	7	8	6	7	16	15	NW	23	18
1400				7	8	7	8	16	18	NW	20	23
1500				8	9	7	9	17	17	NW	21	24
1600	100	NW	4	7	7	8	10	17	17	NW	27	22
1700				7	7	8	12	17	19	NW	26	21
1800				6	8	6	13	18	16	NW	25	18
1900	88	NW	7	5	8	7	13	19	16	NW	24	19
2000				6	9	10	14	19	17	NW	26	16
2100				7	7	14	11	18	18	NW	29	17
2200	85	N	9	8	9	13	12	18	23	NW	30	15
2300				8	7	11	11	18	23	NW	31	8
2400				9	8	11	10	17	24	NW	32	8

FIGURE 28. La Liebre Ridge viewed from the Antelope Valley looking northwest into the direction of prevailing summer flow.

FIGURE 29. San Joaquin Valley viewed from AV Station 9 (La Liebre Ridge) looking northwest through the Pastoria Creek Valley into the direction of prevailing summer flow.

are a consequence of synoptic features such as weather front passages or cut-off upper-level low pressure cells. Winds associated with these storms are short in duration, very violent and often accompanied by severe rains or snow, resulting in tree damage as shown in Figures 30 and 31 in many regions. These flows tend to induce high turbulence levels in winds over ridgelines farthest from the San Joaquin Valley and strong downslope winds onto the floor of the Antelope Valley.

Table 10 is data recorded on November 26, 1979. Strong northwest winds were prevailing over Winters (AV3) and Geghus (AV6) ridges as well as La Liebre (AV2 and AV9). The Antelope Valley site recorded strong winds also from the northwest, most probably the result of strong downslope winds caused by the moving storm.

Summer Southeast Flow

On occasion, synoptic situations dictate a reversal of the prevalent flow pattern during late summer. A thermal low pressure cell can form over the San Joaquin Valley and produce temperature and pressure gradients that combine to reverse the flow over the Tehachapis. This circulation pattern causes an influx of warm, moist air from the southwest to infiltrate the Southern California desert regions. This moisture spawns thunderstorms and a storm front then creeps northwesterly across Southern California.

On September 24, 1979, thunderstorm activity was recorded at Bakersfield Weather Station in the evening. Table 11 records data obtained for that day. In general, winds from the southeast will be light over most of the Tehachapi region. When the storm front then develops and begins to move, northwest winds again dominate. Grapevine (AV4) and Winters (AV3) appear more influenced by storm activity than other ridges, possibly due to a more direct exposure to the San Joaquin Valley.

Another mechanism which can cause local southeast flow is daytime upslope mountain breezes. Observations of 12-15 mph southeast winds in the late morning hours at AV9 (La Liebre), AV2 (La Liebre) and AV7 (Tunis-Geghus) were noted by our field crew quite frequently in the summer. Other stations experienced only faint southeast breezes during these times.

FIGURE 30. Rime icing on flagged California Oak tree located near AV Station 7 (Tunis-Geghus) in the Tehachapi Study Region.

FIGURE 31. Rime icing on flagged (northwest) California Oaks located near AV Station 6 (Geghus) in the Tehachapi Study Region.

TABLE 10.

Summary of wind speed, wind direction, and temperature data obtained in the study region on November 26, 1979 during winter northwest flow conditions. (All wind speeds are in mph at 33 feet AGL.)

Hour (PST)	Bakersfield			(Grape- vine) AV4	(Tunis) AV1	(Winters) AV3	(Geghus) AV6	(Tunis- Geghus) AV7	(La Liebre)		(La Liebre) AV2	(Antelope Valley)	
	T(°F)	Dir.	Speed						AV9	AV9 (Dir.)		AV5	AV5 (Dir.)
0100	56	E	6	12	13	14	21	25	31	NW	29	17	NW
0200				12	15	13	22	26	30	NW	30	27	NW
0300				10	16	16	25	27	30	NW	32	26	NW
0400	52	ESE	3	10	16	13	25	27	30	NW	29	26	NW
0500				11	14	14	24	27	32	NW	29	26	NW
0600				11	13	18	25	27	33	WNW	27	28	NW
0700	55	E	4	9	16	17	24	29	31	NW	26	29	NW
0800				6	15	15	23	32	30	WNW	29	26	NW
0900				7	20	20	26	31	27	WNW	32	28	NW
1000	64	SW	3	8	17	20	28	29	25	NW	26	29	NW
1100				8	14	21	26	28	23	NW	25	27	NW
1200				8	13	20	25	31	24	NW	22	23	NW
1300	71	NW	12	5	12	21	25	34	24	NW	22	19	NW
1400				3	12	24	27	32	24	NW	23	20	NW
1500				3	12	20	29	30	25	NW	20	19	NW
1600	64	NNW	15	4	11	18	27	28	25	NW	19	18	NW
1700				8	10	18	23	24	26	NW	15	16	NW
1800				12	12	16	20	22	25	NW	20	12	NW
1900	59	NW	10	15	12	10	19	26	26	NW	34	10	WNW
2000				15	13	11	20	28	26	NW	41	16	WNW
2100				17	11	13	18	25	25	NW	33	15	WNW
2200	52	NW	6	18	4	14	15	24	24	NW	25	19	WNW
2300				16	2	17	15	21	22	NW	20	13	WNW
2400				14	5	20	14	17	23	NW	14	22	WNW

TABLE 11.

Summary of wind speed, wind direction, and temperature data obtained in the study region on September 24, 1979. (All wind speeds in mph at 33 feet AGL.)

Hour	Bakersfield			(Grape-vine) AV4	(Tunis) AV1	(Winters) AV3	(Tunis-Geghus) AV6	Geghus) AV7	(La Liebre) AV2	(Antelope Valley) AV5 (Dir.)
	T(°F)	Dir.	Speed							
0100	79	--	3	10	8	14	4	3	9	E
0200				11	8	14	8	3	11	ESE
0300				10	9	13	8	3	12	SE
0400	72	--	0	13	11	16	10	4	14	SSE
0500				15	11	14	10	7	16	SSE
0600				15	11	12	13	10	16	SSE
0700	74	E	7	17	9	15	14	11	17	SSE
0800				18	7	18	13	15	20	SSE
0900				16	4	21	13	11	23	SE
1000	86	SW	4	17	9	21	11	8	23	S
1100				18	11	17	15	11	21	SSW
1200				18	11	18	16	14	23	SSE
1300	92	W	6	19	12	19	16	14	28	SSE
1400				17	12	24	16	13	28	SSW
1500				15	11	27	18	14	30	SW
1600	89	N	12	17	14	25	18	15	29	WNW
1700				20	13	32	18	14	24	NW
1800				17	9	34	19	14	22	WNW
1900	79	N	12	17	6	31	21	14	22	NW
2000				16	6	35	20	13	22	NW
2100				12	7	37	12	12	18	NW
2200	69	N	13	8	7	35	--	11	15	NW
2300				3	3	30	--	8	12	NNW
2400				1	3	30	--	2	12	NNW

Santa Ana Flow

The Santa Ana flow is caused by a build-up of pressure over the Great Basin area of Nevada-Utah which occurs after frontal passages in winter. The strength of this flow is determined by the pressure differential between the Great Basin and that off the coast. Generally, the flow is from the east-southeast over the Tehachapi study region, but can be altered by terrain effects. Extremely strong winds can occasionally occur, as is described in the following account (U.S. Weather Service, 1977):

The storm started at Bakersfield during the early morning hours of December 20, 1977 and lasted until the evening of December 21st. The wind was southeasterly during this period at greater than 15 mph both night and day. Blowing dust was reported during most of the period. The maximum sustained wind was 46 mph on the 20th and 38 mph on the 21st. According to our records, the 46 mph wind recorded at Bakersfield on the 20th was the strongest ever recorded at that site for the period of record from 1948 through 1977. There were reports of extremely strong winds on the mountain ridges south of Bakersfield. A mechanical wind-measuring device located at Wheeler Ridge recorded 120 mph just after 11 a.m. on December 20th.

In perspective, Sandberg Weather Station recorded east-southeast winds of nearly 50 mph on that day. Table 12 notes the number of Santa Ana cases in Southern California for a ten-year period by month.

FREQUENCY OF STORMS

Severe gusty winds observed in the Tehachapi Mountain region are associated with storms. As a result of such storms, precipitation often occurs; therefore, episodes of precipitation and storms are correlated. Table 13 lists the mean number of days with measurable precipitation and thunderstorm occurrences for Sandberg and Bakersfield.

TABLE 12. Number of Santa Ana cases by months, Southern California region, 1951-1960.

Month	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Frequency	7	10	17	8	7	4	2*	0	11	19	26	18	129
Total days	12	19	43	15	10	18	5*	0	48	86	128	66	450
Range (days)	1-3	1-7	1-9	1-6	1-2	1-8	1-4	0	1-7	3-8	1-12	1-10	1-12
Average (days)	1.7	1.9	2.5	1.8	1.4	4.5	2.5	0	4.4	4.5	5.0	3.7	3.5

*Cases affecting high elevations only

(Source: Pacific Southwest Forest Service, 1964)

TABLE 13. Mean number of days with measurable precipitation and thunderstorm occurrences.

Month	Mean Number of Days			
	Measurable Precipitation		Thunderstorms	
	Sandberg	Bakersfield	Sandberg	Bakersfield
Jan	6	5	*	*
Feb	6	6	*	*
Mar	6	6	*	*
Apr	4	5	1	*
May	2	2	1	*
Jun	*	*	*	*
Jul	*	*	1	*
Aug	1	*	1	*
Sep	1	1	1	*
Oct	2	2	*	*
Nov	4	3	*	*
Dec	6	5	*	*
Annual	40	36	4	3

Bakersfield (39 year period)

Sandberg (42 year period)

*denotes less than one

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OTHER ENVIRONMENTAL ASPECTS OF THE TEHACHAPI MOUNTAIN STUDY REGION

This chapter will briefly identify related wind-energy development factors other than those involving the wind field.

FAULTS

The Tehachapi study region is on the southwest end of a major fault zone called the Garlock fault. The Garlock fault runs from the Death Valley region over 100 miles southwest along the southern rim of the Sierra-Nevadas through the Tehachapis. Near AV Station 4 on Grapevine Mountain, the Garlock fault is intersected by the San Andreas Fault, which traverses northwest throughout the state of California.

The Garlock fault, the most prominent fault in the region, is seismologically active -- that is, it shows continuous or intermittent movements. In the wedge between the Garlock and San Andreas fault zones (southwest of the study region) at least 10 smaller faults trend northeast.

The strongest earthquake ever recorded in California was centered near the Tehachapi Mountain study region at Fort Tejon on January 8 and 9, 1857. Estimated at a magnitude of greater than 8.0 on the Richter scale, the earthquake was felt strongly throughout most of California, from San Diego near the Mexican border to north of Sacramento, and from the Santa Barbara Channel to the high valleys of the Sierra-Nevada Mountains. The best account was that the 1857 earthquake opened a crevice in the earth at least 275 miles long (U.S. Geological Survey, 1950).

ECONOMIC GEOLOGY

In 1950, John Wiese compiled an extensive geological survey for the U.S. government on natural resources of the Tehachapi Mountain region. The following descriptions are summarized from his account.

Gold

Although the mountainous area of the Tehachapi Mountains has been prospected for more than a century, few mineral deposits of value have been discovered. Colors of gold may be obtained by panning the granitic gravels on the slopes of the Liebre Mountain (south of the study region), and gold traces are fairly common along the south slope of the Tehachapi Mountains.

In the general vicinity, gold has been produced from only one property, the Riviera Mining Company, southeast of the study region. This gold discovery, coupled with finding silver near Mojave, by W.J. Rogers in about 1934 led to a small gold rush. Many claims were staked and hundred of pits put down in the foothills on both sides of the Antelope Valley, but no other deposits were discovered.

Tin

The discovery of tin in 1942 revived interest in the region's mineral resources, especially around the margins of limestone in the La Liebre Range of the Tehachapi Mountains. Several small deposits of high-grade ore were produced in 1942 but none after 1945.

Marble and Limestone

A number of small quarries were opened for furnishing crushed rock for construction of the Los Angeles Aqueduct at the base of the Tehachapis. Limestone, granite, andesite, and quartz monzonite were used. With the exception of the large Oso Cement Plant north of Quail Lake, most quarries are now idle.

Petroleum

Two unsuccessful borings for petroleum were made by the Tejon Ranch Oil Company in 1920 and have not been attempted again since then. Renewed interest in recent years may result in further petroleum exploration of the region in the next few years.

Endangered Species

The California Condor, an endangered species, has been sited in the vicinity of the Tehachapi study area (Ortega, 1979). A strong interest exists among conservationists and within California to minimize human encroachment on the two remaining condor nesting areas in the Sespee-Piru region, which is about 30 miles southwest of the Tehachapis and in the Sisquoc condor sanctuary. Protection areas and Condor Management Areas are currently being examined by both state and federal government. Although it is unlikely that any of the major ridgelines studied would fall under this protective zoning, wind energy array size and height restrictions may be affected by such concerns.

TRANSMISSION LINE PROXIMITY

The Tehachapi study region is adjacent (less than 1 mile from AV Station 9) to the Southern California Edison Company "Big Creek" Transmission line (500 kV). An excellent initial investigation into the cost of electrical power transmission alternatives for wind energy development of this general area was done by Lindley (1977). Readers should refer to his report for details.

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POWER AVAILABILITY ESTIMATES

This chapter concerns the available wind energy at each area investigated on the Tehachapis and the amount of power which can be extracted given a wind turbine with defined power output parameters. There are two major simplifications made in the subsequent energy calculations.

The first involves the interpolation of surface (10-m) wind speed data to hub height (50-m) wind speed data. In a mountainous area the surface roughness varies appreciably between the various wind directions. The measured wind velocity at a small height (10-m) translated to a larger height (50-m) should take this into account. For this study, however, it is assumed that the translation of wind velocity to a larger height is uniformly scaled by a power-law function, which will be the same for all site locations. Although TALA wind profile measurements were taken several times during the six-month field program, not enough reliable data were obtained to make a clear definition of the wind speed profile from 100-m to ground level. As previously discussed, the field survey measurements did indicate a definite accelerated flow within the first 50 meters above the surface, but no data were taken in the evening, nor in winter flows to verify this as the general case. Instead, a power law exponent of 0.14 was chosen for scaling 10-m velocity data to 50-m velocity data. This results in a velocity speed-up of approximately 25 percent from the 10-m velocity data.

The second simplification concerns the averaging time of the wind data and its consequence on energy flux. This study reports wind velocity as an average over a one-hour period. Wind, however, fluctuates instantaneously and these fluctuations result in a difference between the true average energy flux and the calculated energy flux derived from hourly averaged data. de Vries (1979) does an excellent review of this statistical difference. Summarizing, the factor between the true average energy flux and the energy flux calculated for hourly averaged velocity can be approximated by

$$\overline{U^3} = \bar{U}^3 \left[1 + 3(\sigma^2) \right]$$

where

$\overline{U^3}$ = true average energy flux

$\bar{U}^3$ = energy flux calculated for hourly averaged velocity

σ = turbulence intensity

An initial guess for the turbulence intensity for the Tehachapis is 0.15 at the 50-m level. This results in the energy flux calculated by hourly average velocity being about seven percent lower than the true energy flux.

AVAILABLE WIND ENERGY

As described in an earlier chapter wind velocity and wind energy frequency distributions were calculated for each month at the nine AV monitoring stations. These data are tabulated in Appendix C.

Table 14 gives the wind energy flux (watts/m²) at the 50-m level for a unit area through a vertical plane. Based entirely on the monthly trend of wind speed recorded at Sandberg Weather Station (30 years of historical data), an estimate for the winter-spring wind energy flux was made. This was done by scaling AV station data from November with historical Sandberg data. Continued wind monitoring is being conducted through these months to verify this assumption.

The wind energy availability for the Tehachapi mountain study area was carefully examined and summarized in Figure 32.

Area I is the region for which wind energy development is promising and where follow-on studies would be recommended. All of Area I shows an annual energy potential of greater than 400 watts/m², corresponding to an annual wind speed of about 16 mph. The annual wind is defined as the annual wind speed at 10-m AGL with a frequency distribution characterized by a Rayleigh distribution which would have the same energy as the actual wind distribution. Some local windy areas in this region, such as AV Station 2 - La Liebre can have average energy potential near 600 watts/m² during peak seasons,

TABLE 14.

Average wind energy flux (watts/m^2) for the Tehachapi Mountain study region (interpolated to 50-m AGL based on hourly averaged velocity data).

AV Station No.	(June-Aug) Summer	(Sep-Nov) Fall	(Dec-May) Winter-Spring*	Annual Average**
1 (Tunis)	20	60	130	85
2 (La Liebre)	520	440	560	520
3 (Winters)	40	100	130	100
4 (Grapevine)	20	90	140	100
5 (Antelope Valley)	120	140	180	155
6 (Geghus)	70	140	260	185
7 (Tunis-Geghus)	140	200	290	230
8 (Tunis)	20	80	190	120
9 (La Liebre)	250	300	520	435

*Winter-Spring estimate based on monthly trend of wind speed recorded at Sandberg Weather Station (30 year historical data base).

**Based on recorded Summer and Fall data and estimated Winter-Spring data.

- Area I $>400 \text{ watts/m}^2$ (good wind energy potential) *
- Area II $>200 \text{ watts/m}^2$ (fair wind energy potential) *
- Area III $>100 \text{ watts/m}^2$ (poor wind energy potential) *

* based on calculation of annual wind-energy density flux through a vertical plane at 50-m AGL

FIGURE 32. Areas suitable for wind turbine development.

corresponding to an annual wind of about 18.3 mph. Also, it is probable that in this area there would not be less than 200 watts/m² during the low season (an annual wind of 12.7 mph).

Area II is the region for which wind energy development is fair. Although it is doubtful that any of the region would have an annual average energy potential greater than 300 watts/m² (a Rayleigh wind of 14.5 mph), all of the area can expect an annual energy potential of at least 150 watts/m² (a Rayleigh wind of 11.7 mph).

Area III is for regions with less than 100 watts/m² annual energy potential (a Rayleigh wind of 9.8 mph). Violent storms may cause significant increases in wind energy flux, but in general these regions would, at best, be marginal.

The actual capture of the energy in the wind depends upon wind turbine size and operating characteristics. For the study, a hypothetical large WECS design has been used. Specifications are similar to a design of the Boeing MOD-2, 2500 kW rated WECS.

Using the characteristics of this turbine and the wind speed frequency curves for specific sites, the average energy output can be determined by season and year.

The method for calculating energy output is straightforward. For the large WECS system chosen a typical wind turbine performance curve is specified and shown in Figure 33. For each AV Station where time-series data has been collected, wind speed frequency distribution curves can be generated. This has been done in this report and tabulated in Appendix C. The convolution of the machine output per unit speed with the probability density of wind speed per unit speed yields the power frequency distribution of a machines' output as a function of wind speed. The integral of this curve then yields the average expected power output of the wind turbine. This average expected power output divided by the rated power output of the particular machine yields a non-dimensional value, which is the capacity factor. Power outputs for five of the monitoring stations in the Tehachapis are shown in Table 15. For the best areas on La Liebre Ridge (AV Stations 2 and 9) the annual capacity factor is around 0.42. In perspective, annual capacity factors at the best locations in the Palm Springs-Whitewater Region vary between 0.40 and 0.45 (but assume a more conservative velocity ratio between 50-m and 10-m of 17 percent (Zambrano et al., 1980).

FIGURE 33. Typical Power Output curve for a large WECS.

TABLE 15. Estimate of large WECS Average Seasonal Power and Total Energy Output (kW) for Specific Sites in the Tehachapi Mountains

$V_{\text{cut-in}} = 14 \text{ mph}$; $V_{\text{rated}} = 27.7 \text{ mph}$; $V_{\text{cut-out}} = 60 \text{ mph}$; $P = 2500 \text{ kW}$

(assuming velocity ratio of 1.25 between hub height winds and measured 10-m AGL winds)

AV Station No.	Summer (kW)	Fall (kW)	Predicted Winter-Spring (kW)	Average Total (kW)	Total Annual Energy (kW-hr)
2 (La Liebre)	1,175	925	1,150	1,100	9.6×10^6
5 (Antelope Valley)	325	250	300	290	2.5×10^6
6 (Geghus)	150	325	700	470	4.1×10^6
7 (Geghus-Tunis)	400	400	600	500	4.4×10^6
9 (La Liebre)	775	825	1,275	1,040	9.1×10^6

WIND TURBINE ARRAY ESTIMATES

The fluid mechanics involved in WECS array orientation has been investigated thoroughly by Lissaman (1979). An important influence in the WECS array performance is the distribution of wind-energy flux with wind direction. This is obtained by calculating the kinetic energy passing through a vertical plane in a unit time (which in our case is one hour). By multiplying this value, which has units of power/unit area (such as watts/m²) by the percent of time wind is from a particular direction, a joint distribution of wind-energy and direction is obtained. These joint distributions are plotted for the month of November in Figures 34 and 35.

It must be remembered that wind-energy statistics are estimated for a hub-height-level of 50 m (165 feet) using a power law velocity profile, with an assumed power-law exponent of 0.14. This result is a scale-up of 25 percent in wind speed from measured 10 m (33 feet) AGL AV wind monitoring station data. Figure 34 is the wind-energy direction distribution at AV Station 9 on La Liebre Ridge for November 1979. Wind direction is divided into 16 compass points, each direction representing a direction sweep of $\pm 11.25^\circ$. Referring to Figure 34, 510 watts/m² is the total wind energy available for November at AV Station 9. Of that, approximately 200 watts/m² is from northwest winds ($315^\circ \pm 11.25^\circ$), and the remaining energy flux is from south-southeasterly and northwesterly winds. An interesting feature presented in Figure 34 is that even though the maximum winds for November were from the south (mean wind speed of 20 mph at 33 feet AGL), south winds occur only 4 percent of the time and therefore have secondary wind energy potential.

Similar wind energy-direction distributions for AV Station 5 in the Antelope Valley are given in Figure 35. This distribution is most interesting when generated from annual data, since seasonal synoptic changes which many times result in prevailing wind direction changes can be put in perspective. Unfortunately wind direction data recovery at AV Stations 5 and 9 was insufficient to generate those plots. Instead, the joint distribution for wind energy and direction for Sandberg Weather Station for the 12-month period (December 1977-November 1978) was generated and is shown in Figure 36. The Sandberg data was plotted in ten degree increments due to the published format of that data. This refinement shows that wind directions can vary significantly ten degrees. For effective

wind energy flux = 510 watt/m^2

FIGURE 34. Wind energy-direction distribution for AV Station 9 - La Liebre, November 1979 (50-m AGL).

FIGURE 35. Wind energy-direction distribution for AV Station 5 - Antelope Valley, November 1979 (50-m AGL).

wind energy flux = 315 watts/m²

FIGURE 36. Wind energy-direction distribution for a 12-month period (Dec 77-Nov 78) at Sandberg Weather Station (50-m AGL).

orientation of WECS, wind energy-direction distributions which discriminate per degree would be of value.

Since all sites are along ridgelines, the initial assumption is that turbines would be run along a one-dimensional array. Optimization of an array development is beyond the current level of this study; therefore, for informational purposes, a simplified single-line array of turbines will be considered. The array considered is assumed to be comprised of the same turbines corresponding to the configurations detailed previously. For each line mile, a 90% land availability is assumed -- the result being that approximately eight turbines could be aligned on each mile with two diameter-spacing between hubs. From Figure 32 available land for Area I is approximately seven miles, traversing La Liebre Ridge between wind monitoring Stations 2 and 9. The available land for Area II is approximately three miles, traversing Geghus Ridge between wind monitoring Stations 6 and 7. Capacity factors for these regions for the respective ridges were averaged between two sets of wind monitoring stations. No other regions were considered in this initial array estimate. The result of these calculations is shown in Table 16. The last column in the table gives the average power output of any one single turbine in that region.

Again, it must be stressed that only with further refinement of wind measurements, along with turbine and spacing optimization, can Area I then be refined for actual turbine selection and location.

USE OF THE RAYLEIGH DISTRIBUTION

In an earlier chapter, Rayleigh distributions were obtained for wind speed frequency distributions associated with November monthly mean wind speed. Table 17 compares capacity factors generated by the actual wind speed frequency distributions with the Rayleigh distribution. The results are similar to that obtained by Cliff (1977). As shown earlier in Figures 15 through 23, some of the distributions appear to vary significantly from the Rayleigh distribution yet still lead to average power output values close to the estimates predicted using the Rayleigh distribution.

TABLE 16.   Estimated seasonal energy output (kW-hr x 10⁹) for single-line wind turbine arrays on the Tehachapi Mountains.

Location	Number of ** Wind Turbines	kW-hr x 10 ⁹			
		Summer	Fall	Predicted Winter-Spring	Total
La Liebre Ridge	56	0.12	0.11	0.15	0.53
Geghus-Tunis Ridge	24	0.03	0.03	0.03	0.12
*Calif. Aqueduct Total Electrical Demand					2.70
*Edmonston Power Plant Projected Total Electrical Demand					1.21

*Based on projections for 1990 (Lindley, 1977).

** single line array, two diameter spacing between hub, 90% land availability

TABLE 17. Comparison of capacity factors for large WECS obtained from actual wind speed frequency distribution and Rayleigh distribution for November 1979.

$V_{\text{cut-in}} = 14 \text{ mph}$; $V_{\text{rated}} = 27.7 \text{ mph}$; $V_{\text{cut-out}} = 60 \text{ mph}$; $P = 2500 \text{ kW}$

AV Station No.	Actual	Rayleigh
1 *	.18	.15
2	.49	.46
3	.12	.12
4	.20	.16
5	.10	.12
6	.31	.28
7	.25	.24
8	.20	.19
9	.53	.51

* less than 90 percent data recovery

COMPARISON OF FIELD ASSESSMENT SURVEY RESULTS WITH RECORDED DATA

Table 18 summarizes the results from the initial field survey with the six month measurement program. The first column is the station number, the second is the preliminary field survey rank - defined in a previous chapter as the average rank of the best two out of three surveys (short term field measurements, vegetation indices, and topography). The third column is the estimated annual wind energy flux at 50-m AGL and the fourth is the estimated annual energy wind at 10-m AGL, remembering the energy wind is the continuous wind which would have the same energy as the actual wind distribution.

AV Stations 2 and 9 (both on La Liebre Ridge) were initially judged to be the best sites and are further affirmed by the six-month data. AV Station 5 (Antelope Valley), which had a ranking of 3, was initially judged to have better wind energy potential than was documented by the six-month data. Sites 6 (Geghus) and Site 7 (Geghus-Tunis) were initially judged to have good wind energy potential. Although the six-month data show these sites to be the next best sites to the stations on La Liebre Ridge, it was expected the difference in estimated annual energy flux would not have been as large.

In retrospect, it appears that the preliminary survey can successfully locate prime wind sites - those with expected annual energy winds greater than 15 mph at the 10-m level, and successfully locate poor wind sites - those with expected annual energy winds less than 9 mph at the 10-m level. The critical zone for wind energy potential (wind speed that can be between 10 and 14 mph annually) is, basically, all remaining areas. Wind speed there can only be evaluated by actual field measurements with proper placement of monitoring equipment. Comparison of actual data with statistical distributions has also shown that obtaining an integrated average of the mean monthly wind speed can be a cost-effective method for obtaining first-order approximations of average power at a site.

From this experience, it is recommended that for future studies instrumentation be varied from monitors capable of wind speed and wind direction time-series data at sites located having potential annual wind speed of greater than 14 mph at 33-ft AGL, and

TABLE 18. Comparison of Preliminary Field Survey Results with Data Obtained from the six month monitoring program.

AV Station No.	Preliminary Field Survey Rank	Estimated Annual Wind Energy ₂ Flux (watts/m ²)	Estimated Annual Wind * Speed at 10-m AGL- m/sec (mph)
1 - Tunis	9	85	4.4 (9.8)
2 - La Liebre	1	520	7.9 (17.8)
3 - Winters	14	100	4.4 (10.1)
4 - Grapevine	7	100	4.4 (10.1)
5 - Antelope Valley	3	155	5.3 (11.9)
6 - Geghus	6	183	5.4 (12.3)
7 - Geghus-Tunis	5	230	5.9 (13.6)
8 - Tunis	10	120	4.4 (10.1)
9 - La Liebre	2	400	7.3 (16.4)

* energy wind is defined as the continuous wind which would have the same energy as the actual wind distribution.

monitors capable of integrated monthly averaged wind speed data at sites located having potential annual wind speed between 10 and 14 mph at 33-ft AGL.

The vegetation survey can be the only short-term evaluation technique which may provide a method for discerning between regions within this 10 to 14 mph band. Results from the initial field survey compared with six-month results, however, show initial correlation attempts unsuccessful. Table 19 compares the predicted annual average velocity from the deformation index of California oak with the estimated annual wind speed derived from the six-month data.

The difference between the predicted annual velocity from the deformation index with the estimated annual energy wind speed was to be expected, given that any vegetation index now developed contains an error band of 20 percent to 40 percent (Hewson, Wade 1979). The correlation curve initially used for velocity estimates was a preliminary estimate, which was to be refined with the "calibrated" data obtained from the actual field measurements. Figure 37 plots the data obtained comparing six-month measurements with deformation ratio. The figure shows quite clearly that the scatter of mean velocities with deformation ratios renders the linear correlation meaningless.

The vegetation index insensitivity to the critical wind speeds may be a result of many factors, two of which will be discussed.

First, consider the simple but analogous case of uniform loading on a vertical cantilevered beam. Using basic statics (see Popov, 1952) and assuming the beam to be elastic and of uniform thickness, the deflection at any point x distance from the base is

$$\Delta_x = \frac{w}{24EI} (x^4 - 4\ell^3 x + 3\ell^4)$$

where w = uniformly distributed load per unit of length
 E = modulus of elasticity of the material (wood $\approx 1.6 \times 10^6$ psi)
 I = moment of inertia of beam
 ℓ = total length of beam

TABLE 19. Comparison of Vegetation Survey Results with data obtained from the six-month monitoring program in the Tehachapi Study region.'

AV Station No.	California Oak Calc. Deforma- tion Index	Predicted Annual Vel. from Deforma- tion Index (m/sec)	Est. Annual Wind Speed (m/sec)
1 - Tunis	4.1	6.2	4.4
2 - La Liebre	6.1	8.0	7.9
3 - Winters	1.4	4.7	4.4
4 - Grapevine	5.0	7.4	4.4
5 - Antelope Valley	-	-	-
6 - Geghus	4.7	6.7	5.4
7 - Geghus-Tunis	5.0	7.4	5.9
8 - Tunis	4.0	6.2	4.4
9 - La Liebre	5.0	7.6	7.3

FIGURE 34.

Comparison of Calculated Deformation Ratio (D) for California Oak with estimated annual wind speeds derived from six-month measurement program in the Tehachapis.

and
$$\Delta_{x \max} = \frac{w \ell^4}{8EI}$$

or
$$w = \frac{(\Delta_{x \max}) 8EI}{\ell^4}$$

now for wind loading, the pressure of wind at different velocities is

$$w = 1/2 \rho V^2$$

so
$$V = \left[\frac{(\Delta_{x \max}) 16EI}{\rho \ell^4} \right]^{1/2}$$

This shows that the deflection of a beam is not linearly related to the wind velocity and is dependent on the beam length ℓ . The same would be expected for tree deformation, but to a much greater degree because unlike the continuous vertical beam the tree will have a moment of inertia which would be varying with height, and the total force on the tree would be nonuniform.

A second factor is the comparative bending moment on a tree caused by wind and by snow or ice loading. Since the density of water is about 800 times that of air, the bending of branches caused by snow and icing may have greater effect than even violent wind loading on tree deformation. Figure 38 shows photographs of the same grove of California oaks during winter and spring. The severe deformation of the trees' top branches appears to be caused by the snow and ice loading. Wind forces are generally treated as deflecting a tree in the along-wind direction. Ice and snow loading however can be transmitting torsion loads on the tree and, in effect, cause warping. In the summer California oaks grow a dark, dense leaf covering which results in their characteristic oval appearance. The severity of the branch system bending or warping is then very difficult to detect from any far distance or photograph.

Because of these factors, it is recommended that a thorough analysis of the mechanics of tree deformation be done. This can be done in conjunction with a field program for obtaining tree data - which would include a systematic method for measuring tree height, solidity (summer and winter), circumference and along-wind and cross-wind eccentricity as well as other parameters which may relate to the mechanics of bending.

FIGURE 38. Identical trees in the study region during winter and early spring.

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CONCLUSIONS AND RECOMMENDATIONS

The general scope of work performed was to conduct a wind-site survey in the Tehachapi Mountain region; select, procure, and assemble the instrument systems and associated equipment for the monitoring program; conduct a six-month measurement program and reduce the meteorological data as one-hour averages and joint-frequency distributions of velocity and direction as applicable; analyze the data from the monitoring program in terms of wind-power statistics; and compare the monitoring program data with the field assessment data.

The task of wind-energy assessment in complex terrain requires an observational method for the initial screening and for the evaluation of potential WECS sites. The method employed in this program produced a detailed basic study of where WECS development should be further pursued. On the positive side, the combination of several survey techniques such as short-term measurements, vegetation indices, and site serviceability generated the desired criteria for selection of monitoring sites. The verification of the field assessment by actual instrumentation was governed by the level of effort of the project, but was sufficient to provide a basic comparison of the initial field survey results and documentation of the flow field and wind-energy flux.

There were no severe problems encountered with the operation of the field assessment program or subsequent data acquisition, although several recommendations for improvements were discussed in previous chapters. A summary of these recommendations follows.

The TALA systems are a reliable, portable, wind-energy assessment device for remote regions. Horizontal velocity profiles over the surrounding terrain at the 50-m level should be taken as often as possible and coordinated with simultaneous measurements taken with other TALA systems at adjacent ridgelines. TALA measurements should be made with every station check during the study period. In times of low winds during station checks, deformation ratios for vegetation should be more extensively surveyed and logged.

There is a need for refinement of the velocity correlation relations of tree deformation ratios. Data obtained from this survey should be viewed with caution because of the large scatter. Further research into the mechanics of tree bending can result in a more systematic method for obtaining a tree deformation index.

Sites identified from a preliminary survey as having a potential wind-speed annual average greater than 14 mph near the surface should be monitored with stations having wind-speed and wind-direction capabilities. The amount of effort needed to acquire data from remote regions should outweigh the additional cost of instrumentation. Wind direction can be taken as simply as an instant reading over a given time period (one hour) and be very useful in defining local flow fields for strong wind conditions, and would enable further analysis of wind power output. Sites identified from a preliminary survey as having a potential wind-speed annual average of less than 14 mph can be cost-effectively monitored with stations capable of obtaining integrated monthly averaged wind speed data.

One year's field monitoring is recommended for any wind-energy assessment program. After six months sufficient amount of information is obtained to generate an accurate interim assessment which can assist planners in WECS development as a potential energy system. As with any large-scale engineering project, there are additional specific questions which are to be addressed as the scope of the program becomes more hardware-oriented. This report introduced preliminary information on environmental issues, power estimates, and machine selection and array planning. Each of these areas will need immediate study as the next phase of WECS development and can be considered after the first six months of field monitoring.

On the basis of the insights gained during the course of this program, we conclude that with improvement of the vegetation indices and additional field experience with TALA systems, this program for assessing a local wind field constitutes a reliable, cost-effective technique for WECS siting in complex terrain.

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APPENDIX A
Site Photographs

A1: View from AV Station 8 on Tunis Ridge looking south into Pastoria Creek Arroyo.

A2: Rolling terrain of Tunis Ridge near AV Station 8, looking northeast toward AV Station 1.

A3: Looking back (southwest) towards AV Station 8 from AV Station 1 on Tunis Ridge.

A4: View from AV Station 1 on Tunis Ridge looking north towards Winters Ridge and AV Station 3.

A5: View from AV Station 7 (Tunis-Geghus) looking down road (west) towards Geghus Ridge (AV Station 6).

A6: Flagged trees on Geghus Ridge looking northeast from AV Station 6 towards AV Station 7.

A7: Site check at AV Station 6 (Geghus Ridge).

A8: Southern end of Geghus Ridge looking northeast towards AV Station 6.

← La Liebre Ridge

← Geghus Ridge

← Tunis Ridge

A9: Ridgelines of the study region looking south from Winters Ridge.

A10: Flat plateau of AV Station 9 (La Liebre Ridge) looking southwest towards microwave tower.

A11: Typical rolling terrain of Grapevine Hill.

APPENDIX B

Wind Data Summary

TABLE B-1. Total hours of published data for Tehachapi sites (May 1979 - November 1980).

	May	June	July	Aug	Sep	Oct	Nov	Total	Percent
Site 1	139	540	744	744	656	512	422	3,618	76%
Site 2	--	--	318	456	582	201	686	2,243	61%
Site 3	--	--	158	744	715	707	662	2,986	81%
Site 4	714	720	684	631	720	741	720	4,930	96%
Site 5	--	--	154	731	425	202	720	2,232	61%
Site 6	--	542	744	744	573	711	720	4,034	92%
Site 7	--	--	299	744	720	744	720	3,227	88%
Site 8	--	--	156	696	559	470	720	2,601	71%
Site 9	709	720	744	378	563	686	720	4,520	88%
Site 10	--	--	--	--	--	--	--	--	--
Percent	70%	88%	60%	88%	85%	74%	94%		77%

* percentage data recovery is made by assuming that each station should be operating for the full month regardless of equipment malfunction, start date, site inaccessibility or animal damage.

Station locations in the study area.

Malfunction Codes

<u>Numerical Entry Code</u>	<u>Letter Code</u>	<u>Description</u>
900	CA	Calibration (calibration, system check)
910	MT	Maintenance (changing paper, tape, charcoal)
920	FO	Flame Out (on the GC-THC, HC, CH ₄ , CO)
930	IM	Instrument Malfunction (instrument failures)
940	PF	Power Failure (generator failure)
950	RF	Recording System Failure (chart jams, runs out)
955	NV	Not Visible (values were not within range of instrument i. e. inversion heights may exist beyond the full scale of the Acoustic Radar)
960	LI	Local Interference (car nearby)
965	OE	Operator Error (Field tech leaves switch in wrong position out of AV's control.)
970	OS	Off Scale (at top of chart)
975	IN	Interference (CO ₂ interference on sulfur data, SO ₂ interference in oxidant readings)
980	SE	Special Experiment
985	OR	Out for Repair (instrument removed from site with no replacement)
990	VA	Variable Wind Direction
995	CM	Calm (no wind direction when wind speed = 0)
998	UN	Unlimited Ceiling (reported by NWS Stations)
999		Blank (causes a space to be printed as in the beginning of a new month before a component starts)

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WIND SPEED (00:01)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHAPI MTNS, CA.
SITE : 1

MAY, 1979

AERODVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
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12	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
13	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
14	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
15	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
16	7.0	4.0	3.0	3.0	2.0	2.0	1.0	.0	.0	.0	.0	1.0	4.0	4.0	3.0	3.0	5.0	4.0	5.0	7.0	4.0	6.0	6.0	5.0	3.5	8.0
17	6.0	5.0	3.0	4.0	7.0	7.0	5.0	2.0	2.0	1.0	4.0	4.0	6.0	5.0	6.0	5.0	5.0	4.0	2.0	3.0	3.0	4.0	4.0	3.0	4.2	7.0
18	4.0	3.0	3.0	3.0	2.0	3.0	3.0	3.0	5.0	3.0	2.0	3.0	5.0	4.0	3.0	5.0	4.0	4.0	3.0	2.0	2.0	4.0	5.0	5.0	3.5	5.0
19	4.0	.0	.0	.0	.0	.0	.0	1.0	3.0	2.0	1.0	1.0	2.0	3.0	9.0	10.0	13.0	13.0	12.0	13.0	16.0	13.0	11.0	13.0	5.0	16.0
20	12.0	9.0	9.0	7.0	6.0	3.0	1.0	4.0	4.0	4.0	6.0	7.0	7.0	7.0	6.0	9.0	10.0	8.0	6.0	5.0	5.0	5.0	8.0	8.0	6.5	12.0
21	11.0	11.0	9.0	8.0	5.0	5.0	3.0	2.0	.0	1.0	3.0	1.0	2.0	2.0	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	4.5	11.0
22	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
23	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
24	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
25	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
26	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
27	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
28	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
29	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
30	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
31	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
AV	7.3	5.3	4.5	4.2	3.7	3.3	2.2	2.0	2.3	1.8	2.7	2.8	4.3	4.2	5.4	6.4	7.4	6.6	5.6	6.5	7.3	6.8	7.2	7.2	5.3	[ ]
SD	3.1	3.7	3.4	2.7	2.5	2.2	1.7	1.3	1.9	1.3	2.0	2.2	1.9	1.6	2.2	2.7	3.5	3.6	3.5	3.7	4.7	3.2	2.4	3.3	1.9	[ ]

WIND SPEED (00101)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTLE WIND STUDY, #505
TEHACHAPI MTNS, CA.
SITE 1

JUN, 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
2	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
3	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
4	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
5	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
6	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
7	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
8	[OR]	[OR]	[OR]	[OR]	[OR]	[OR]	[OR]	[OR]	[OR]	[OR]	[OR]	[OR]	[OR]	[OR]	[OR]	[OR]	[OR]	[OR]	[OR]	[OR]	[OR]	[OR]	[OR]	[OR]	[ ]	[ ]
9	1.0	.0	.0	.0	.0	.0	.0	.0	5.0	4.0	5.0	5.0	4.0	3.0	3.0	3.0	3.0	1.0	4.0	5.0	3.0	4.0	2.0	3.0	3.3	5.0
10	1.0	2.0	2.0	1.0	2.0	.0	1.0	1.0	7.0	9.0	11.0	7.0	5.0	5.0	3.0	.0	.0	2.0	3.0	3.0	2.0	.0	.0	.0	2.8	11.0
11	1.0	.0	.0	1.0	.0	.0	.0	.0	.0	1.0	1.0	1.0	.0	1.0	1.0	1.0	.0	1.0	6.0	3.0	1.0	1.0	2.0	3.0	1.0	6.0
12	3.0	2.0	2.0	1.0	.0	3.0	3.0	3.0	1.0	1.0	1.0	.0	1.0	1.0	1.0	3.0	2.0	2.0	3.0	6.0	5.0	3.0	2.0	4.0	2.2	6.0
13	3.0	2.0	1.0	.0	.0	.0	.0	.0	.0	.0	1.0	3.0	3.0	5.0	6.0	5.0	4.0	4.0	3.0	4.0	7.0	10.0	11.0	6.0	3.3	11.0
14	5.0	2.0	3.0	3.0	4.0	5.0	5.0	5.0	5.0	5.0	6.0	5.0	5.0	5.0	5.0	4.0	5.0	6.0	7.0	9.0	9.0	7.0	8.0	9.0	5.5	9.0
15	8.0	8.0	7.0	6.0	5.0	4.0	5.0	6.0	6.0	7.0	8.0	8.0	8.0	10.0	11.0	9.0	10.0	9.0	10.0	10.0	10.0	10.0	11.0	10.0	8.1	11.0
16	9.0	10.0	8.0	7.0	7.0	6.0	6.0	6.0	8.0	8.0	8.0	8.0	9.0	12.0	13.0	11.0	11.0	13.0	14.0	14.0	14.0	14.0	14.0	15.0	10.2	15.0
17	17.0	15.0	15.0	12.0	10.0	12.0	14.0	10.0	7.0	11.0	8.0	10.0	10.0	13.0	15.0	15.0	16.0	15.0	13.0	11.0	12.0	10.0	9.0	9.0	12.0	17.0
18	9.0	9.0	8.0	6.0	6.0	5.0	5.0	7.0	9.0	8.0	9.0	9.0	10.0	9.0	8.0	7.0	8.0	8.0	9.0	7.0	6.0	6.0	6.0	6.0	7.5	10.0
19	6.0	7.0	6.0	5.0	5.0	4.0	3.0	1.0	1.0	3.0	4.0	3.0	3.0	1.0	1.0	1.0	2.0	.0	.0	5.0	1.0	.0	.0	3.0	2.7	7.0
20	6.0	7.0	7.0	3.0	2.0	5.0	4.0	1.0	1.0	1.0	1.0	2.0	3.0	4.0	5.0	4.0	2.0	2.0	1.0	2.0	3.0	5.0	7.0	9.0	3.6	9.0
21	8.0	4.0	4.0	4.0	4.0	5.0	6.0	6.0	8.0	7.0	6.0	7.0	8.0	9.0	10.0	10.0	10.0	9.0	9.0	10.0	12.0	12.0	10.0	10.0	7.8	12.0
22	9.0	7.0	6.0	6.0	7.0	7.0	8.0	8.0	8.0	5.0	6.0	6.0	6.0	7.0	7.0	7.0	6.0	7.0	6.0	5.0	3.0	6.0	6.0	7.0	6.5	9.0
23	7.0	5.0	6.0	7.0	7.0	8.0	4.0	5.0	6.0	4.0	4.0	2.0	2.0	3.0	4.0	4.0	4.0	3.0	3.0	5.0	4.0	5.0	5.0	4.0	4.6	8.0
24	4.0	4.0	5.0	5.0	6.0	7.0	5.0	1.0	.0	.0	1.0	.0	2.0	2.0	4.0	4.0	5.0	6.0	4.0	5.0	6.0	6.0	8.0	6.0	4.0	8.0
25	4.0	3.0	2.0	3.0	4.0	6.0	5.0	3.0	2.0	3.0	3.0	6.0	8.0	7.0	6.0	8.0	7.0	6.0	7.0	9.0	9.0	7.0	8.0	8.0	5.6	9.0
26	6.0	5.0	5.0	5.0	6.0	7.0	5.0	6.0	7.0	4.0	5.0	6.0	7.0	7.0	7.0	8.0	7.0	8.0	6.0	8.0	8.0	7.0	6.0	6.0	6.3	8.0
27	4.0	4.0	5.0	6.0	8.0	8.0	7.0	5.0	3.0	3.0	3.0	4.0	3.0	3.0	5.0	6.0	5.0	4.0	4.0	4.0	3.0	5.0	5.0	5.0	4.7	8.0
28	6.0	6.0	6.0	8.0	8.0	8.0	8.0	8.0	8.0	6.0	6.0	6.0	5.0	5.0	5.0	5.0	6.0	5.0	2.0	3.0	3.0	5.0	5.0	6.0	5.8	8.0
29	6.0	5.0	5.0	4.0	6.0	6.0	6.0	5.0	4.0	4.0	4.0	6.0	7.0	6.0	3.0	3.0	3.0	4.0	3.0	4.0	3.0	3.0	3.0	1.0	4.3	7.0
30	3.0	5.0	3.0	4.0	4.0	5.0	3.0	3.0	3.0	5.0	6.0	7.0	6.0	6.0	7.0	6.0	5.0	6.0	5.0	4.0	5.0	6.0	6.0	6.0	5.0	7.0
AV	5.7	5.1	4.8	4.4	4.6	5.0	4.7	4.1	4.5	4.5	4.9	5.0	5.2	5.6	5.8	5.5	5.4	5.5	5.5	6.1	5.7	5.8	6.0	6.1	5.2	[ ]
SD	3.5	3.4	3.2	2.8	2.8	3.0	3.1	2.9	3.0	2.9	2.8	2.8	2.8	3.3	3.6	3.5	3.7	3.7	3.4	3.0	3.5	3.5	3.7	3.3	2.6	[ ]

ADJUT (11 MAY 79)

WIND SPEED (00:01)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTFLE WIND STUDY, #505
TEHACHAPI MTS, CA.
SITE 1

JUL, 1979

AEROGVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK	
1	7.0	6.0	6.0	6.0	4.0	5.0	4.0	5.0	4.0	4.0	3.0	2.0	4.0	3.0	3.0	4.0	3.0	3.0	3.0	3.0	1.0	.0	1.0	1.0	3.5	7.0	
2	2.0	1.0	.0	.0	4.0	2.0	.0	1.0	.0	.0	.0	.0	.0	.0	1.0	1.0	1.0	1.0	4.0	.0	1.0	2.0	1.0	.0	.9	4.0	
3	11.0	12.0	10.0	8.0	9.0	4.0	.0	.0	.0	.0	1.0	1.0	3.0	4.0	4.0	3.0	3.0	5.0	5.0	4.0	5.0	6.0	4.0	4.0	4.4	12.0	
4	4.0	5.0	7.0	8.0	9.0	8.0	7.0	4.0	4.0	3.0	4.0	3.0	3.0	5.0	5.0	5.0	6.0	6.0	5.0	5.0	6.0	4.0	3.0	1.0	5.0	9.0	
5	2.0	6.0	6.0	7.0	6.0	8.0	9.0	6.0	5.0	5.0	5.0	3.0	2.0	3.0	3.0	4.0	7.0	8.0	8.0	8.0	8.0	8.0	9.0	10.0	6.1	10.0	
6	7.0	8.0	7.0	8.0	10.0	10.0	8.0	9.0	8.0	4.0	3.0	4.0	5.0	5.0	4.0	5.0	6.0	5.0	7.0	8.0	9.0	8.0	8.0	7.0	6.8	10.0	
7	7.0	7.0	8.0	5.0	5.0	7.0	7.0	9.0	6.0	6.0	5.0	5.0	6.0	4.0	4.0	4.0	3.0	1.0	1.0	4.0	4.0	7.0	5.0	5.0	5.2	8.0	
8	4.0	5.0	6.0	6.0	6.0	7.0	6.0	8.0	8.0	9.0	8.0	6.0	6.0	7.0	7.0	5.0	5.0	3.0	2.0	3.0	3.0	4.0	4.0	3.0	5.5	9.0	
9	1.0	.0	.0	1.0	1.0	1.0	.0	.0	.0	.0	.0	.0	2.0	3.0	.0	.0	.0	1.0	2.0	3.0	4.0	5.0	5.0	4.0	1.4	5.0	
10	5.0	4.0	3.0	4.0	7.0	6.0	8.0	6.0	5.0	5.0	7.0	7.0	9.0	8.0	8.0	10.0	8.0	9.0	9.0	10.0	9.0	8.0	9.0	8.0	7.2	10.0	
11	6.0	8.0	9.0	10.0	12.0	11.0	10.0	10.0	12.0	12.0	11.0	12.0	8.0	7.0	5.0	6.0	7.0	9.0	10.0	9.0	9.0	10.0	11.0	12.0	9.4	12.0	
12	12.0	10.0	12.0	15.0	15.0	13.0	15.0	15.0	14.0	12.0	13.0	11.0	9.0	8.0	6.0	4.0	2.0	3.0	3.0	3.0	4.0	6.0	5.0	7.0	9.0	15.0	
13	7.0	7.0	6.0	6.0	7.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	1.0	2.0	.0	.0	.0	2.0	.0	.0	.0	4.0	3.3	7.0	
14	3.0	1.0	2.0	2.0	4.0	3.0	3.0	1.0	1.0	.0	3.0	1.0	.0	.0	1.0	1.0	.0	.0	1.0	3.0	2.0	1.0	3.0	3.0	1.6	4.0	
15	4.0	4.0	3.0	4.0	3.0	2.0	3.0	3.0	4.0	.0	3.0	1.0	3.0	3.0	3.0	1.0	2.0	1.0	.0	.0	.0	.0	.0	1.0	2.0	4.0	
16	3.0	3.0	2.0	1.0	1.0	.0	3.0	.0	1.0	2.0	1.0	1.0	1.0	2.0	.0	.0	1.0	2.0	3.0	2.0	2.0	2.0	1.0	2.0	1.5	3.0	
17	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0	6.0	6.0	8.0	6.0	5.0	4.0	4.0	4.0	5.0	7.0	9.0	11.0	3.4	11.0	
18	10.0	10.0	9.0	7.0	6.0	7.0	6.0	5.0	3.0	3.0	2.0	3.0	4.0	6.0	6.0	7.0	7.0	6.0	5.0	6.0	7.0	7.0	6.0	4.0	5.9	10.0	
19	4.0	3.0	3.0	4.0	11.0	15.0	16.0	12.0	6.0	.0	.0	.0	.0	2.0	2.0	2.0	2.0	2.0	6.0	8.0	7.0	12.0	16.0	18.0	6.3	18.0	
20	19.0	21.0	19.0	20.0	.0	19.0	20.0	20.0	19.0	17.0	.0	12.0	11.0	9.0	8.0	7.0	7.0	9.0	9.0	8.0	9.0	8.0	6.0	5.0	11.8	21.0	
21	3.0	1.0	2.0	1.0	.0	.0	.0	.0	.0	.0	1.0	3.0	5.0	6.0	6.0	7.0	7.0	7.0	7.0	4.0	3.0	.0	2.0	5.0	2.9	7.0	
22	3.0	3.0	3.0	4.0	4.0	2.0	3.0	4.0	4.0	5.0	7.0	7.0	6.0	8.0	8.0	8.0	4.0	3.0	4.0	6.0	6.0	6.0	6.0	5.0	5.0	8.0	
23	6.0	7.0	8.0	7.0	6.0	6.0	5.0	4.0	6.0	7.0	8.0	8.0	8.0	7.0	6.0	6.0	5.0	8.0	10.0	9.0	7.0	9.0	11.0	11.0	7.3	11.0	
24	10.0	10.0	8.0	9.0	7.0	5.0	4.0	4.0	4.0	5.0	6.0	7.0	7.0	5.0	6.0	6.0	5.0	4.0	3.0	4.0	4.0	5.0	6.0	6.0	5.8	10.0	
25	6.0	4.0	3.0	5.0	7.0	5.0	4.0	3.0	3.0	4.0	6.0	6.0	5.0	5.0	4.0	3.0	1.0	1.0	.0	2.0	2.0	2.0	3.0	3.0	3.6	7.0	
26	3.0	6.0	8.0	6.0	5.0	3.0	2.0	.0	.0	2.0	3.0	4.0	5.0	6.0	6.0	4.0	6.0	7.0	10.0	9.0	9.0	13.0	12.0	11.0	5.8	13.0	
27	7.0	4.0	7.0	8.0	7.0	6.0	6.0	7.0	8.0	8.0	8.0	8.0	10.0	9.0	8.0	9.0	10.0	9.0	6.0	8.0	9.0	8.0	9.0	9.0	7.8	10.0	
28	8.0	6.0	3.0	4.0	4.0	6.0	6.0	6.0	6.0	6.0	7.0	9.0	8.0	8.0	9.0	7.0	7.0	8.0	8.0	9.0	7.0	9.0	7.0	8.0	6.9	9.0	
29	8.0	6.0	6.0	6.0	9.0	8.0	7.0	7.0	7.0	7.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	6.0	5.0	4.0	4.0	4.0	3.0	4.0	6.0	9.0	
30	4.0	4.0	.0	3.0	2.0	.0	.0	1.0	1.0	1.0	2.0	3.0	4.0	3.0	3.0	3.0	1.0	.0	.0	2.0	3.0	3.0	2.0	2.0	2.0	4.0	4.0
31	2.0	3.0	3.0	3.0	.0	1.0	1.0	.0	.0	.0	3.0	5.0	5.0	6.0	6.0	6.0	5.0	4.0	5.0	5.0	6.0	6.0	8.0	6.0	3.7	8.0	
AV	5.8	5.6	5.5	5.7	5.5	5.6	5.4	4.9	4.6	4.2	4.2	4.7	5.0	5.1	4.7	4.6	4.3	4.4	4.7	5.0	5.0	5.5	5.6	5.8	5.1	1	
SD	3.7	4.1	4.0	4.1	3.7	4.5	4.8	4.7	4.4	4.1	3.3	3.4	2.9	2.4	2.5	2.6	2.7	3.0	3.1	2.8	2.8	3.5	3.8	3.9	2.5	1	

WIND SPEED (CC101)

MILES/HOUR

LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505

TEHACHAPI MTS, CA.

SITE 1

AUG, 1979

AEROVIRONMENT INC.

*****
 * PRELIMINARY DATA *
 * AS OF 26/AUG/80 *
 *
 * SURJECT TO *
 * REVISION *
 *
 *****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	5.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	7.0	6.0	7.0	8.0	11.0	10.0	10.0	9.0	8.0	9.0	9.0	11.0	11.0	10.0	9.0	7.3	11.0
2	8.0	6.0	5.0	5.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	8.0	9.0	8.0	7.0	7.0	8.0	7.0	7.0	9.0	8.0	9.0	8.0	7.1	9.0
3	7.0	7.0	5.0	3.0	3.0	5.0	4.0	4.0	3.0	1.0	3.0	2.0	3.0	3.0	3.0	4.0	6.0	6.0	5.0	5.0	6.0	6.0	6.0	3.0	4.3	7.0
4	4.0	4.0	4.0	4.0	4.0	4.0	4.0	2.0	3.0	3.0	3.0	4.0	6.0	5.0	6.0	5.0	6.0	8.0	8.0	6.0	6.0	7.0	7.0	5.0	4.9	8.0
5	1.0	2.0	.0	1.0	.0	.0	5.0	6.0	2.0	2.0	.0	2.0	3.0	3.0	5.0	6.0	5.0	5.0	3.0	6.0	.0	.0	6.0	6.0	2.9	6.0
6	5.0	5.0	3.0	2.0	.0	4.0	1.0	.0	1.0	1.0	.0	.0	6.0	4.0	6.0	3.0	14.0	22.0	22.0	25.0	2.0	1.0	3.0	1.0	5.5	25.0
7	1.0	1.0	1.0	1.0	2.0	1.0	.0	.0	1.0	1.0	3.0	3.0	4.0	4.0	4.0	5.0	6.0	5.0	5.0	4.0	8.0	8.0	6.0	6.0	3.3	8.0
8	5.0	5.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	4.0	4.0	4.0	5.0	3.0	6.0	7.0	6.0	5.0	6.0	7.0	6.0	5.0	6.0	4.2	7.0
9	6.0	3.0	5.0	3.0	3.0	3.0	4.0	2.0	.0	2.0	3.0	1.0	3.0	4.0	5.0	3.0	2.0	2.0	1.0	2.0	3.0	4.0	5.0	3.0	3.0	6.0
10	3.0	1.0	1.0	2.0	2.0	.0	3.0	3.0	1.0	1.0	2.0	1.0	2.0	3.0	3.0	2.0	2.0	3.0	2.0	3.0	4.0	1.0	1.0	2.0	2.0	4.0
11	3.0	2.0	2.0	3.0	3.0	1.0	3.0	5.0	7.0	6.0	4.0	7.0	8.0	10.0	7.0	6.0	9.0	5.0	5.0	5.0	4.0	7.0	8.0	8.0	5.3	10.0
12	3.0	2.0	2.0	1.0	1.0	.0	.0	.0	3.0	3.0	2.0	2.0	4.0	6.0	4.0	3.0	4.0	7.0	10.0	7.0	9.0	8.0	8.0	6.0	4.0	10.0
13	5.0	6.0	3.0	5.0	4.0	6.0	5.0	4.0	5.0	4.0	3.0	5.0	6.0	6.0	7.0	8.0	8.0	9.0	9.0	10.0	10.0	10.0	8.0	8.0	6.4	10.0
14	6.0	5.0	4.0	4.0	6.0	8.0	7.0	5.0	6.0	6.0	5.0	2.0	3.0	4.0	5.0	5.0	6.0	4.0	3.0	2.0	3.0	2.0	2.0	3.0	4.4	8.0
15	4.0	4.0	5.0	5.0	4.0	3.0	3.0	3.0	1.0	.0	1.0	3.0	3.0	3.0	3.0	3.0	3.0	.0	.0	2.0	3.0	.0	.0	.0	2.3	5.0
16	.0	.0	1.0	2.0	1.0	.0	.0	.0	.0	.0	3.0	3.0	3.0	3.0	3.0	1.0	1.0	.0	.0	1.0	2.0	.0	1.0	1.0	1.0	3.0
17	3.0	1.0	.0	1.0	.0	1.0	1.0	.0	.0	.0	1.0	.0	1.0	2.0	2.0	.0	.0	.0	.0	.0	.0	2.0	3.0	3.0	.9	3.0
18	2.0	2.0	4.0	1.0	4.0	3.0	1.0	.0	.0	1.0	.0	1.0	3.0	5.0	5.0	4.0	2.0	1.0	2.0	1.0	5.0	8.0	2.0	.0	2.4	8.0
19	1.0	2.0	3.0	3.0	4.0	2.0	2.0	2.0	3.0	4.0	4.0	6.0	6.0	5.0	4.0	4.0	4.0	2.0	3.0	3.0	6.0	10.0	8.0	6.0	4.0	10.0
20	5.0	6.0	5.0	4.0	5.0	4.0	3.0	1.0	.0	.0	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	7.0	8.0	9.0	10.0	7.0	4.3	10.0
21	7.0	5.0	4.0	5.0	5.0	4.0	3.0	1.0	.0	.0	.0	1.0	4.0	5.0	5.0	5.0	3.0	2.0	3.0	3.0	5.0	6.0	6.0	6.0	3.7	7.0
22	8.0	7.0	7.0	5.0	2.0	1.0	2.0	2.0	.0	.0	.0	.0	.0	3.0	3.0	2.0	1.0	1.0	3.0	4.0	4.0	5.0	5.0	6.0	3.0	8.0
23	7.0	9.0	9.0	10.0	9.0	6.0	2.0	3.0	3.0	4.0	4.0	3.0	3.0	3.0	4.0	5.0	4.0	4.0	7.0	9.0	7.0	7.0	8.0	8.0	5.8	10.0
24	9.0	8.0	7.0	10.0	12.0	12.0	11.0	8.0	7.0	4.0	5.0	7.0	5.0	5.0	2.0	5.0	5.0	5.0	4.0	5.0	5.0	6.0	6.0	6.0	6.6	12.0
25	8.0	8.0	9.0	8.0	8.0	8.0	8.0	7.0	8.0	6.0	7.0	9.0	12.0	12.0	12.0	12.0	10.0	9.0	11.0	11.0	12.0	13.0	11.0	9.0	9.5	13.0
26	9.0	7.0	6.0	5.0	7.0	9.0	9.0	11.0	11.0	10.0	10.0	10.0	9.0	10.0	9.0	7.0	7.0	9.0	8.0	8.0	8.0	8.0	6.0	6.0	8.3	11.0
27	8.0	8.0	8.0	9.0	7.0	5.0	5.0	5.0	5.0	.0	4.0	5.0	6.0	6.0	6.0	4.0	4.0	4.0	5.0	6.0	6.0	7.0	8.0	7.0	5.8	9.0
28	6.0	5.0	5.0	6.0	6.0	5.0	4.0	4.0	5.0	6.0	7.0	9.0	8.0	8.0	9.0	9.0	8.0	7.0	7.0	6.0	5.0	4.0	4.0	4.0	6.3	9.0
29	5.0	6.0	3.0	3.0	4.0	3.0	4.0	2.0	3.0	4.0	6.0	6.0	5.0	6.0	7.0	7.0	8.0	7.0	7.0	8.0	8.0	9.0	8.0	8.0	5.7	9.0
30	8.0	8.0	2.0	5.0	5.0	4.0	5.0	5.0	7.0	7.0	6.0	8.0	8.0	9.0	8.0	10.0	9.0	10.0	9.0	10.0	9.0	8.0	8.0	8.0	7.3	10.0
31	8.0	7.0	7.0	7.0	6.0	6.0	7.0	5.0	3.0	1.0	.0	2.0	3.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	3.0	4.0	8.0
AV	5.2	4.7	4.1	4.2	4.2	3.9	3.8	3.3	3.2	2.9	3.4	3.9	4.8	5.5	5.3	5.1	5.4	5.4	5.5	6.0	5.8	5.9	5.8	5.2	4.7	1
SD	2.5	2.5	2.4	2.5	2.7	2.9	2.6	2.6	2.8	2.7	2.5	2.9	2.6	2.7	2.5	2.7	3.1	4.2	4.2	4.5	3.0	3.4	2.9	2.6	2.0	1

B-8

WIND SPEED (CC101)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

RATTELLE WIND STUDY, #505
TEHACHAPI MTS, CA.
SITE 1

SEP. 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SURJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK	
1	3.0	2.0	2.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	2.0	3.0	3.0	5.0	6.0	6.0	5.0	5.0	4.0	6.0	6.0	6.0	6.0	7.0	4.3	7.0	
2	7.0	6.0	5.0	5.0	5.0	6.0	6.0	6.0	5.0	6.0	6.0	7.0	7.0	7.0	7.0	8.0	7.0	7.0	6.0	6.0	6.0	5.0	5.0	6.0	6.1	8.0	
3	5.0	6.0	7.0	7.0	6.0	8.0	9.0	10.0	9.0	8.0	7.0	7.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	8.0	9.0	9.0	9.0	10.0	7.3	10.0	
4	10.0	9.0	7.0	9.0	8.0	7.0	7.0	7.0	7.0	8.0	7.0	8.0	6.0	7.0	6.0	5.0	5.0	5.0	5.0	5.0	7.0	7.0	7.0	9.0	7.0	10.0	
5	8.0	6.0	6.0	6.0	6.0	8.0	7.0	6.0	3.0	1.0	1.0	2.0	4.0	5.0	4.0	3.0	2.0	2.0	5.0	5.0	2.0	2.0	4.0	5.0	4.3	8.0	
6	5.0	4.0	4.0	4.0	5.0	5.0	5.0	4.0	2.0	.0	1.0	1.0	3.0	3.0	3.0	3.0	2.0	2.0	6.0	6.0	6.0	3.0	3.0	.0	3.3	6.0	
7	2.0	5.0	4.0	5.0	5.0	6.0	6.0	7.0	5.0	5.0	6.0	4.0	4.0	4.0	2.0	1.0	1.0	.0	.0	1.0	4.0	6.0	6.0	7.0	4.0	7.0	
8	5.0	6.0	6.0	7.0	6.0	5.0	5.0	3.0	3.0	2.0	2.0	3.0	3.0	3.0	4.0	3.0	3.0	5.0	7.0	6.0	5.0	4.0	4.0	4.0	4.3	7.0	
9	5.0	4.0	2.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	1.0	1.0	1.0	1.0	1.0	4.0	4.0	3.0	(IM)	(IM)	(IM)	1.4	5.0	
10	2.0	3.0	3.0	1.0	3.0	2.0	1.0	.0	.0	.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	(IM)	3.0	1.0	(IM)	3.0	3.0	5.0	1.7	5.0	
11	4.0	4.0	3.0	3.0	3.0	2.0	2.0	2.0	3.0	4.0	5.0	5.0	6.0	6.0	5.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	(IM)	(IM)	(IM)	3.8	6.0
12	(IM)	.0	3.0	4.0	3.0	3.0	2.0	1.0	1.0	2.0	3.0	4.0	5.0	4.0	4.0	2.0	4.0	4.0	5.0	(IM)	2.0	2.0	5.0	3.0	3.0	5.0	
13	4.0	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	4.0	5.0	4.0	5.0	7.0	5.0	5.0	5.0	3.0	(IM)	4.0	5.0	5.0	3.0	4.6	7.0	
14	4.0	7.0	6.0	5.0	4.0	3.0	2.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	3.0	4.0	4.0	2.0	2.0	3.0	3.0	2.0	3.8	7.0	
15	3.0	1.0	1.0	1.0	1.0	4.0	3.0	4.0	7.0	7.0	5.0	3.0	2.0	1.0	3.0	2.0	2.0	1.0	.0	.0	.0	.0	.0	.0	2.1	7.0	
16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	3.0	4.0	5.0	6.0	5.0	4.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	2.2	6.0	
17	4.0	3.0	4.0	2.0	3.0	3.0	2.0	2.0	4.0	5.0	4.0	5.0	6.0	5.0	7.0	8.0	7.0	6.0	6.0	6.0	7.0	7.0	7.0	6.0	5.0	8.0	
18	7.0	8.0	7.0	6.0	6.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0	6.0	6.0	7.0	6.0	8.0	5.8	8.0	
19	9.0	9.0	8.0	7.0	7.0	7.0	5.0	3.0	4.0	5.0	5.0	6.0	6.0	5.0	3.0	2.0	3.0	4.0	5.0	7.0	7.0	7.0	6.0	6.0	5.7	9.0	
20	6.0	6.0	4.0	4.0	3.0	.0	1.0	2.0	4.0	2.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4	6.0	
21	1.0	2.0	4.0	7.0	8.0	9.0	5.0	3.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	.0	1.0	2.0	1.0	.0	.0	1.0	2.3	9.0		
22	3.0	1.0	1.0	1.0	1.0	.0	.0	1.0	1.0	3.0	2.0	1.0	3.0	2.0	2.0	3.0	5.0	3.0	5.0	2.0	1.0	2.0	4.0	3.0	2.1	5.0	
23	2.0	1.0	.0	.0	.0	.0	.0	2.0	4.0	2.0	3.0	3.0	3.0	3.0	2.0	3.0	5.0	8.0	7.0	7.0	6.0	9.0	8.0	8.0	3.6	9.0	
24	8.0	8.0	9.0	11.0	11.0	11.0	9.0	7.0	4.0	9.0	11.0	11.0	12.0	12.0	11.0	14.0	13.0	9.0	6.0	6.0	7.0	7.0	3.0	3.0	8.8	14.0	
25	4.0	3.0	3.0	2.0	6.0	3.0	4.0	3.0	1.0	1.0	1.0	2.0	3.0	2.0	2.0	2.0	4.0	6.0	7.0	6.0	7.0	8.0	6.0	6.0	3.8	8.0	
26	5.0	4.0	2.0	.0	.0	.0	2.0	1.0	1.0	1.0	1.0	.0	.0	.0	.0	1.0	1.0	4.0	4.0	4.0	6.0	5.0	2.0	3.0	2.0	6.0	
27	4.0	4.0	5.0	5.0	5.0	5.0	4.0	4.0	5.0	4.0	4.0	4.0	3.0	3.0	3.0	5.0	4.0	2.0	4.0	4.0	5.0	5.0	3.0	6.0	4.2	6.0	
28	6.0	7.0	2.0	3.0	3.0	4.0	4.0	6.0	5.0	4.0	3.0	1.0	1.0	1.0	1.0	7.0	10.0	8.0	10.0	9.0	7.0	.0	2.0	.0	4.3	10.0	
29	.0	1.0	3.0	2.0	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	1.5	3.0	
30	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(1 (1		
AV	4.5	4.3	4.0	4.0	4.1	4.1	3.7	3.5	3.4	3.4	3.4	3.5	3.8	3.8	3.9	4.0	4.0	4.1	4.5	4.4	4.6	4.5	4.3	4.4	3.9	( )	
SD	2.5	2.7	2.3	2.8	2.7	3.0	2.6	2.5	2.2	2.6	2.5	2.6	2.5	2.6	2.6	2.9	2.8	2.4	2.2	2.5	2.5	2.7	2.3	2.8	1.9	( )	

ABOUT (11 MAY 79)

B-9

WIND SPEED (CC1011)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

RATTELLE WIND STUDY, #505
TFHACHAPI MTNS, CA.
SITE 1

OCT. 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK	
1	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	( )	( )	
2	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	11.6	9.4	7.5	5.3	4.1	4.6	4.1	4.5	3.8	5.4	.2	.0	1.8	1.8	.0	4.3	11.6	
3	.0	1.2	1.3	2.4	1.3	1.8	2.6	3.3	4.0	3.9	3.7	3.6	2.3	1.8	1.4	3.6	3.3	2.8	2.0	2.0	4.8	4.4	3.7	3.5	2.7	4.8	
4	4.0	3.0	.9	.9	2.1	5.5	4.2	3.8	4.3	4.1	3.0	2.7	3.1	1.7	1.5	1.5	.8	1.3	3.4	2.5	1.1	1.7	3.5	3.4	2.7	5.5	
5	4.4	2.9	3.3	6.0	6.0	6.7	6.3	3.8	.3	.6	1.1	2.0	3.7	4.3	4.1	3.8	3.0	3.4	4.1	3.8	3.5	3.5	4.3	5.5	3.8	6.7	
6	7.1	7.1	8.2	6.3	7.2	5.9	5.8	4.7	3.1	2.0	2.5	3.1	4.1	4.4	4.6	4.2	3.2	4.1	3.5	3.6	3.9	4.3	4.7	5.6	4.7	8.2	
7	4.7	6.1	8.5	9.5	6.3	6.4	6.4	5.2	3.1	2.6	1.4	1.0	.6	2.0	5.6	5.6	4.3	5.0	6.9	7.0	7.3	8.1	7.5	4.5	5.2	9.5	
8	4.5	5.7	6.9	8.2	5.4	3.7	5.2	4.0	6.2	4.7	2.6	1.3	2.7	2.8	3.3	2.0	.5	.8	1.6	.2	.4	.4	.9	2.5	3.2	8.2	
9	3.3	2.0	3.6	6.2	7.6	5.8	10.0	8.3	7.0	8.6	8.2	6.3	4.9	5.7	5.5	6.7	6.2	5.7	4.9	3.7	2.6	2.6	3.0	3.9	5.5	10.0	
10	3.4	4.2	4.2	3.0	2.8	4.2	5.7	7.0	6.4	7.5	8.9	8.1	6.7	6.9	6.8	3.0	3.1	4.3	3.3	2.3	.0	.0	1.0	.0	4.3	8.9	
11	.0	1.0	.0	1.6	2.8	1.3	.5	.5	.0	.6	.7	.4	.2	1.5	3.1	3.9	4.6	6.1	6.4	6.3	5.5	5.5	4.6	5.7	2.6	6.4	
12	5.7	5.4	5.0	5.6	6.5	7.7	7.9	7.9	7.5	4.9	4.5	3.5	4.4	3.9	3.1	1.4	1.6	3.9	5.8	5.0	5.4	5.2	3.7	4.6	5.0	7.9	
13	4.1	5.7	5.2	6.1	6.4	3.6	3.6	3.7	5.9	1.8	4.4	5.4	5.5	6.7	7.3	7.0	3.7	2.8	4.2	2.5	3.4	5.1	6.2	5.1	4.8	7.3	
14	3.5	4.1	6.2	7.8	8.2	8.1	7.3	7.0	6.0	6.1	4.0	5.5	7.2	6.5	6.0	5.7	5.0	5.1	7.9	6.8	6.9	5.8	3.7	5.1	6.1	8.2	
15	5.6	8.5	8.9	11.3	14.9	14.3	13.7	12.3	11.2	6.3	1.8	1.1	1.4	5.8	7.3	6.2	5.3	5.7	6.2	7.0	6.9	7.6	5.5	5.6	7.5	14.9	
16	8.2	9.0	7.7	8.2	8.1	7.2	5.2	5.2	4.0	5.8	5.2	5.0	5.8	3.5	5.4	5.3	6.2	7.9	8.1	7.7	7.0	7.4	8.2	7.5	6.6	9.0	
17	7.1	6.6	5.6	4.9	4.9	4.5	4.7	5.3	6.6	7.0	6.9	6.6	6.6	8.2	8.7	8.7	9.6	9.5	9.6	9.6	8.9	8.4	8.5	8.5	7.2	9.6	
18	9.0	10.4	11.9	11.2	9.8	10.0	8.4	6.6	6.6	7.3	5.5	7.0	7.1	8.2	9.5	9.1	9.7	7.7	7.4	6.9	5.4	6.4	5.2	5.5	8.0	11.9	
19	6.5	6.6	5.7	8.2	8.9	7.2	5.4	5.0	5.3	8.2	7.9	6.5	6.1	7.6	7.7	9.4	10.1	11.5	8.7	9.4	7.6	8.7	7.5	6.2	7.6	11.5	
20	6.3	3.2	.3	.2	2.4	4.6	9.2	10.7	11.7	15.1	14.2	15.3	12.5	15.2	13.9	14.9	13.1	14.7	15.1	14.5	14.0	13.0	13.1	14.1	10.9	15.3	
21	17.1	19.2	19.6	18.6	14.4	8.7	7.5	9.2	9.5	5.6	.6	1.3	1.2	2.1	3.5	6.3	4.7	8.4	10.4	7.1	9.9	10.7	7.3	3.3	8.6	19.6	
22	3.9	7.5	9.5	11.9	12.6	14.0	15.4	14.8	8.7	5.8	5.1	6.6	2.9	3.5	3.7	3.8	6.4	6.0	.3	1.6	5.1	4.6	1.4	.4	6.5	15.4	
23	1.7	4.0	.7	1.9	3.3	7.4	7.4	6.5	8.0	11.8	11.4	9.4	6.9	5.3	5.9	3.2	5.0	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	5.9	11.8
24	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )	( )
25	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )	( )
26	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )	( )
27	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )	( )
28	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )	( )
29	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )	( )
30	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )	( )
31	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )	( )
AV	5.2	5.9	5.9	6.7	6.8	6.6	6.8	6.4	6.0	6.0	5.1	5.0	4.6	5.1	5.5	5.4	5.2	5.7	6.0	5.2	5.2	5.5	5.0	4.8	5.6	( )	
SD	3.5	3.9	4.5	4.3	3.8	3.2	3.3	3.2	3.0	3.6	3.6	3.4	2.8	3.0	2.7	3.0	3.1	3.3	3.3	3.4	3.4	3.2	2.9	3.0	2.1	( )	

WIND SPEED 100:011
MILES/HOUR
LEVEL HEIGHT : 10 METERS

RATTELLE WIND STUDY, #505
TEHACHA PT MTS, CA.
SITE 1

NOV, 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
2	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
3	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
4	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
5	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
6	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
7	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
8	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
9	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
10	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
11	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
12	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
13	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]	[ ]
14	8.7	12.0	16.2	15.6	15.2	18.2	20.0	17.3	17.3	20.1	19.3	17.5	17.7	17.7	17.6	15.8	15.7	15.1	16.8	16.0	18.1	18.9	18.7	19.0	16.9	20.1
15	19.8	18.1	16.1	13.8	13.0	16.6	15.6	15.0	16.6	16.3	16.0	15.3	12.9	12.4	12.0	10.2	9.9	11.2	12.0	11.8	11.8	10.2	9.0	9.1	13.5	19.8
16	5.6	7.3	9.8	8.7	10.9	12.3	12.6	16.1	15.7	15.7	15.0	13.9	10.6	8.4	10.2	10.0	9.4	11.7	10.4	11.1	10.6	7.6	3.6	7.1	10.6	16.1
17	9.6	11.6	14.9	11.5	12.6	13.8	14.5	17.0	18.0	18.3	18.0	18.3	18.1	16.4	16.6	17.2	16.8	15.5	16.2	17.1	15.7	13.8	12.5	11.8	15.2	18.3
18	12.7	11.9	11.4	12.2	12.4	13.6	12.6	13.7	16.8	17.7	16.2	19.7	21.0	17.2	13.7	16.4	14.3	9.5	9.7	5.2	3.9	5.0	5.3	6.6	12.4	21.0
19	7.1	9.3	11.6	11.5	10.8	9.6	9.2	9.9	8.9	6.4	5.1	4.8	4.1	6.5	6.1	4.7	4.0	1.6	1.8	2.6	2.5	3.3	1.9	1.8	6.0	11.6
20	.9	.9	.9	1.0	.9	1.3	2.6	2.8	4.4	3.3	2.7	2.1	1.3	2.2	7.1	7.6	9.0	11.8	13.9	14.9	13.3	13.1	12.2	12.8	6.0	14.9
21	11.4	11.1	9.5	8.1	6.9	8.4	4.6	2.2	1.4	.2	.8	.2	.1	.5	.1	.7	.8	.7	.0	.0	.5	.4	1.6	7.1	3.2	11.4
22	5.5	5.5	4.0	1.5	1.1	2.4	3.1	4.4	8.5	8.2	6.9	5.7	4.8	6.4	8.2	9.8	12.9	12.7	14.6	14.0	13.2	10.5	13.8	14.9	8.0	14.9
23	14.9	14.3	13.2	12.1	14.4	12.9	11.6	11.3	15.6	15.3	11.0	8.9	9.0	8.3	8.5	8.7	9.7	11.1	11.8	13.8	11.0	13.0	14.7	13.1	12.0	15.6
24	13.1	14.7	14.9	15.3	15.6	16.6	14.8	16.1	17.3	17.3	17.4	17.7	19.1	17.4	17.0	14.3	11.2	7.5	9.1	10.1	11.4	12.4	14.3	13.1	14.5	19.1
25	12.4	13.3	12.9	10.1	10.6	9.6	5.6	7.5	3.9	7.0	8.8	10.4	9.7	11.0	9.9	8.9	11.1	12.1	12.0	13.1	13.5	13.3	14.2	14.6	10.6	14.6
26	13.4	14.7	15.8	16.0	14.1	13.4	15.9	15.1	19.9	17.0	14.0	12.9	12.0	11.8	11.8	11.3	9.6	11.5	11.9	13.4	11.1	4.3	2.4	4.9	12.4	19.9
27	3.4	.7	1.0	3.5	10.8	13.6	10.9	9.2	7.3	8.4	8.3	7.8	5.1	3.8	10.4	12.1	15.6	15.3	12.4	11.2	10.6	13.9	16.5	19.0	9.6	19.0
28	18.8	19.8	23.2	24.4	26.6	25.5	20.9	13.6	9.2	6.5	5.1	4.7	1.3	8.3	2.2	8.7	11.5	10.6	9.2	5.2	2.1	2.4	1.2	1.0	10.9	26.6
29	.9	.0	1.0	1.8	1.4	.1	.6	2.9	3.3	1.2	1.3	1.4	2.4	3.3	5.3	5.1	4.2	4.3	6.1	8.5	8.0	7.5	6.1	6.3	3.5	8.5
30	4.8	2.5	1.2	3.9	1.8	.4	.6	1.3	2.3	1.7	2.1	3.7	1.9	.8	.2	.7	1.1	.6	1.2	1.8	1.2	2.5	1.8	.8	1.7	4.8
AV	9.6	9.9	10.4	10.1	10.5	11.1	10.3	10.3	11.0	10.6	10.3	10.0	9.1	9.0	9.3	9.7	10.0	9.8	10.2	10.2	9.7	9.3	9.2	9.7	10.0	[ ]
SD	5.5	5.9	6.5	6.1	6.4	6.7	6.3	5.6	6.3	6.7	6.3	6.2	6.7	5.5	5.1	4.6	4.6	4.7	4.8	5.0	5.2	5.2	5.9	5.5	4.3	[ ]

ADDITION (11 MAY 79)

B-11

WIND SPEED (CROSS)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

RATTELL WIND STUDY, #505
TEHACHAPI MTS, CA.
SITE 1
DEC, 1979
AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	3.0	5.4	8.9	13.1	14.2	12.3	9.4	8.6	11.1	13.0	13.6	10.5	11.3	8.7	5.3	7.0	3.6	2.9	2.2	1.5	2.9	9.2	12.6	14.3	8.5	14.3
2	11.9	9.8	7.5	5.1	4.2	2.1	4.1	3.4	2.6	3.1	3.1	3.1	3.3	1.1	1.1	1.3	2.5	1.4	1.2	2.8	7.4	9.6	10.6	10.8	4.7	11.9
3	8.1	10.9	10.8	9.4	7.0	6.7	6.3	7.8	5.7	3.3	7.7	7.9	5.1	4.0	1.0	.2	.3	2.0	2.1	5.2	6.8	11.7	8.6	3.5	5.9	11.7
4	2.3	2.1	1.2	1.2	1.4	.2	.8	1.1	.9	1.3	2.4	3.0	5.6	7.4	8.6	11.4	12.3	11.3	11.8	11.6	12.2	14.3	14.7	16.1	6.5	16.1
5	18.0	16.2	13.3	13.1	14.5	15.1	14.4	10.8	6.0	3.3															11.4	18.0
6																										
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AV	8.7	8.9	8.3	8.4	8.3	7.3	7.0	6.3	5.3	4.8	5.5	6.1	6.3	5.3	4.0	5.0	4.7	4.4	4.3	5.3	7.3	11.2	11.6	11.2	7.4	
SD	5.8	4.8	4.1	4.6	5.3	5.7	4.6	3.6	3.5	4.2	4.6	3.2	3.0	3.0	3.2	4.5	4.6	4.0	4.3	3.9	3.3	2.0	2.3	4.8	2.4	

WIND SPEED [CC101]
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY.#505
TEHACHAPI MTS, CA.
SITE 2

JUL, 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR [LOCAL STANDARD TIME]

B-13

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
2	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
3	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
4	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
5	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
6	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
7	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
8	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
9	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
10	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
11	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
12	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
13	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
14	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
15	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
16	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
17	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
18	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
19	20.0	19.0	4.0	13.0	17.0	21.0	20.0	17.0	16.0	10.0	9.0	10.0	10.0	12.0	11.0	11.0	12.0	8.0	6.0	8.0	9.0	11.0	27.0	18.0	13.3	27.0
20	27.0	39.0	35.0	35.0	32.0	29.0	25.0	25.0	23.0	22.0	21.0	22.0	21.0	19.0	19.0	19.0	14.0	15.0	14.0	11.0	7.0	7.0	4.0	3.0	20.3	39.0
21	2.0	3.0	8.0	11.0	12.0	16.0	17.0	14.0	9.0	10.0	7.0	5.0	6.0	10.0	11.0	15.0	19.0	19.0	22.0	26.0	27.0	22.0	23.0	22.0	14.0	27.0
22	20.0	19.0	20.0	22.0	25.0	23.0	22.0	24.0	25.0	25.0	27.0	26.0	21.0	15.0	15.0	18.0	22.0	26.0	28.0	28.0	28.0	30.0	29.0	28.0	23.6	30.0
23	29.0	29.0	29.0	28.0	28.0	27.0	25.0	23.0	22.0	21.0	20.0	18.0	17.0	16.0	17.0	18.0	18.0	21.0	20.0	29.0	34.0	33.0	36.0	35.0	24.7	36.0
24	37.0	31.0	30.0	30.0	27.0	23.0	24.0	22.0	20.0	17.0	13.0	11.0	11.0	11.0	10.0	11.0	11.0	13.0	17.0	19.0	20.0	20.0	20.0	20.0	19.5	37.0
25	21.0	20.0	22.0	21.0	17.0	15.0	6.0	2.0	3.0	4.0	6.0	6.0	8.0	10.0	11.0	12.0	12.0	9.0	8.0	8.0	9.0	12.0	12.0	12.0	11.1	22.0
26	13.0	13.0	11.0	11.0	6.0	3.0	6.0	8.0	5.0	4.0	4.0	5.0	5.0	6.0	5.0	9.0	7.0	5.0	6.0	11.0	16.0	22.0	26.0	26.0	9.7	26.0
27	30.0	34.0	30.0	27.0	26.0	24.0	23.0	24.0	21.0	21.0	19.0	23.0	21.0	20.0	23.0	22.0	24.0	26.0	28.0	28.0	31.0	33.0	32.0	30.0	25.8	34.0
28	30.0	32.0	33.0	31.0	28.0	28.0	26.0	25.0	25.0	23.0	24.0	25.0	23.0	20.0	21.0	27.0	26.0	25.0	24.0	26.0	29.0	30.0	31.0	32.0	26.8	33.0
29	35.0	32.0	31.0	31.0	31.0	27.0	25.0	19.0	20.0	18.0	19.0	16.0	9.0	2.0	6.0	8.0	8.0	10.0	10.0	14.0	23.0	24.0	23.0	24.0	19.8	35.0
30	22.0	21.0	18.0	15.0	12.0	8.0	6.0	1.0	3.0	6.0	7.0	5.0	4.0	6.0	8.0	10.0	11.0	11.0	12.0	10.0	7.0	4.0	6.0	9.0	9.3	22.0
31	8.0	8.0	10.0	8.0	7.0	7.0	7.0	6.0	5.0	5.0	3.0	2.0	1.0	3.0	4.0	6.0	10.0	11.0	13.0	18.0	21.0	20.0	21.0	28.0	9.7	28.0
AV	22.6	23.1	21.6	21.8	20.6	19.3	17.8	16.2	15.2	14.3	13.8	13.4	12.1	11.5	12.4	14.3	14.9	15.3	17.2	19.2	20.9	21.2	22.6	22.3	18.4	[ ]
SD	9.9	10.4	10.2	8.9	8.8	8.4	8.1	8.7	8.4	7.7	7.9	8.3	7.3	6.0	5.9	5.9	6.0	7.0	8.5	8.6	9.4	9.2	9.2	8.8	6.9	[ ]

WIND SPEED (CROSS)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

PATTELLE WIND STUDY, #505
TEHACHAPI MTS., CA.
SITE 2

AUG, 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

B-14

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	29.0	29.0	27.0	26.0	26.0	28.0	29.0	27.0	26.0	25.0	25.0	24.0	24.0	27.0	26.0	26.0	25.0	23.0	24.0	28.0	28.0	31.0	33.0	34.0	27.1	34.0
2	31.0	32.0	30.0	29.0	29.0	30.0	29.0	29.0	26.0	25.0	23.0	22.0	19.0	20.0	22.0	22.0	24.0	26.0	26.0	27.0	29.0	28.0	28.0	29.0	26.5	32.0
3	28.0	28.0	27.0	23.0	23.0	18.0	12.0	7.0	3.0	3.0	4.0	8.0	11.0	14.0	14.0	16.0	18.0	20.0	21.0	23.0	22.0	22.0	23.0	23.0	17.1	28.0
4	23.0	23.0	20.0	20.0	19.0	20.0	17.0	17.0	15.0	13.0	10.0	12.0	13.0	12.0	13.0	15.0	16.0	19.0	18.0	19.0	17.0	17.0	20.0	18.0	16.9	23.0
5	12.0	9.0	9.0	13.0	17.0	13.0	13.0	16.0	17.0	12.0	9.0	11.0	13.0	13.0	15.0	16.0	16.0	19.0	19.0	22.0	24.0	23.0	25.0	27.0	16.0	27.0
6	25.0	23.0	20.0	14.0	16.0	16.0	14.0	12.0	12.0	13.0	12.0	11.0	13.0	11.0	11.0	12.0	12.0	13.0	16.0	19.0	17.0	18.0	18.0	18.0	15.3	25.0
7	16.0	14.0	14.0	14.0	10.0	6.0	3.0	4.0	2.0	3.0	5.0	7.0	10.0	12.0	12.0	13.0	9.0	6.0	10.0	11.0	13.0	21.0	22.0	16.0	10.5	22.0
8	12.0	11.0	8.0	9.0	9.0	12.0	11.0	8.0	9.0	10.0	11.0	11.0	12.0	11.0	10.0	9.0	11.0	14.0	16.0	20.0	23.0	24.0	23.0	21.0	13.1	24.0
9	22.0	21.0	19.0	14.0	12.0	12.0	11.0	10.0	2.0	4.0	6.0	11.0	10.0	11.0	10.0	11.0	5.0	2.0	2.0	6.0	3.0	4.0	2.0	5.0	9.0	22.0
10	6.0	6.0	5.0	4.0	2.0	1.0	3.0	5.0	6.0	5.0	4.0	7.0	9.0	15.0	14.0	11.0	10.0	10.0	8.0	8.0	7.0	6.0	5.0	4.0	6.7	15.0
11	3.0	8.0	4.0	5.0	2.0	1.0	6.0	8.0	14.0	17.0	16.0	21.0	22.0	25.0	26.0	26.0	28.0	30.0	30.0	31.0	29.0	29.0	24.0	24.0	17.9	31.0
12	20.0	16.0	13.0	7.0	3.0	2.0	2.0	1.0	1.0	6.0	13.0	14.0	13.0	13.0	11.0	3.0	10.0	6.0	5.0	10.0	13.0	18.0	25.0	27.0	10.5	27.0
13	25.0	26.0	21.0	19.0	17.0	21.0	26.0	26.0	23.0	22.0	18.0	17.0	19.0	17.0	16.0	19.0	18.0	22.0	25.0	30.0	28.0	30.0	29.0	31.0	22.7	31.0
14	31.0	30.0	29.0	27.0	24.0	22.0	23.0	17.0	8.0	4.0	6.0	8.0	4.0	4.0	10.0	10.0	17.0	18.0	21.0	21.0	21.0	20.0	18.0	16.0	17.0	31.0
15	16.0	15.0	13.0	12.0	11.0	5.0	5.0	9.0	13.0	13.0	17.0	17.0	17.0	22.0	17.0	13.0	7.0	4.0	6.0	8.0	8.0	6.0	4.0	4.0	10.9	22.0
16	5.0	3.0	4.0	6.0	6.0	9.0	10.0	11.0	15.0	18.0	18.0	18.0	18.0	17.0	15.0	12.0	12.0	11.0	9.0	5.0	8.0	4.0	4.0	4.0	10.5	18.0
17	8.0	4.0	(PF)	5.0	8.0	7.0	6.0	7.0	7.0	9.0	12.0	11.0	14.0	13.0	10.0	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	8.6	14.0
18	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	( )
19	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	( )
20	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	( )
21	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	( )
22	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	( )
23	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	( )
24	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	( )
25	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	( )
26	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	( )
27	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	( )
28	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	( )
29	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
30	27.0	29.0	28.0	29.0	28.0	27.0	26.0	27.0	25.0	24.0	23.0	19.0	14.0	13.0	13.0	17.0	19.0	21.0	23.0	25.0	26.0	24.0	24.0	24.0	23.1	29.0
31	22.0	20.0	21.0	20.0	20.0	20.0	18.0	14.0	8.0	2.0	3.0	4.0	4.0	5.0	6.0	5.0	4.0	3.0	3.0	6.0	8.0	11.0	13.0	8.0	10.3	22.0
AV	19.0	18.3	17.3	15.6	14.8	14.2	13.9	13.4	12.2	12.0	12.4	13.3	13.6	14.5	14.6	14.4	14.6	14.8	15.6	17.9	18.5	19.3	19.7	19.4	15.6	( )
SD	8.9	9.3	8.7	8.3	8.5	9.0	8.8	8.3	8.1	7.7	6.8	5.5	5.2	5.7	5.2	5.9	6.5	8.0	8.2	8.5	8.5	9.0	9.0	9.4	6.0	( )

WIND SPEED ICC1011
MILES/HOUR
LEVFL HEIGHT : 10 METERS

BATTELLE WIND STUDY.#505
TEHACHAPI MTNS. CA.
SITE 2

SEP. 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	13.0	13.0	14.0	11.0	10.0	9.0	7.0	6.0	6.0	7.0	9.0	8.0	7.0	6.0	5.0	2.0	1.0	5.0	6.0	7.0	10.0	13.0	14.0	15.0	8.5	15.0
2	16.0	15.0	18.0	22.0	20.0	21.0	21.0	21.0	21.0	19.0	17.0	15.0	15.0	14.0	14.0	16.0	17.0	15.0	14.0	14.0	14.0	15.0	15.0	15.0	17.1	22.0
3	17.0	18.0	20.0	21.0	22.0	20.0	19.0	18.0	17.0	16.0	14.0	17.0	17.0	19.0	18.0	18.0	17.0	17.0	19.0	15.0	13.0	10.0	10.0	10.0	16.8	22.0
4	11.0	11.0	13.0	15.0	17.0	20.0	21.0	22.0	23.0	24.0	24.0	25.0	24.0	26.0	25.0	24.0	24.0	25.0	24.0	22.0	22.0	19.0	15.0	15.0	20.5	24.0
5	13.0	13.0	12.0	11.0	11.0	13.0	14.0	14.0	15.0	17.0	18.0	16.0	15.0	16.0	16.0	15.0	15.0	11.0	8.0	8.0	7.0	5.0	2.0	0	11.9	18.0
6	2.0	3.0	4.0	5.0	3.0	2.0	5.0	5.0	7.0	7.0	8.0	11.0	12.0	12.0	11.0	10.0	10.0	11.0	7.0	5.0	1.0	0	0	1.0	5.9	12.0
7	3.0	5.0	5.0	6.0	7.0	9.0	9.0	6.0	5.0	2.0	3.0	5.0	4.0	5.0	5.0	3.0	2.0	5.0	10.0	12.0	10.0	11.0	12.0	14.0	6.6	14.0
8	12.0	12.0	12.0	12.0	12.0	11.0	12.0	13.0	14.0	31.0	29.0	23.0	19.0	14.0	13.0	9.0	5.0	2.0	0	1.0	1.0	2.0	1.0	2.0	10.9	31.0
9	2.0	3.0	2.0	1.0	1.0	1.0	3.0	9.0	18.0	23.0	23.0	22.0	19.0	18.0	18.0	18.0	13.0	2.0	3.0	5.0	5.0	6.0	3.0	3.0	9.2	23.0
10	3.0	5.0	5.0	3.0	2.0	4.0	9.0	9.0	17.0	21.0	22.0	27.0	29.0	22.0	20.0	18.0	14.0	9.0	3.0	0	2.0	2.0	2.0	2.0	10.4	29.0
11	0	1.0	1.0	0	0	0	0	0	0	4.0	4.0	8.0	8.0	6.0	5.0	5.0	4.0	5.0	5.0	6.0	6.0	7.0	6.0	5.0	3.6	8.0
12	6.0	4.0	4.0	0	4.0	2.0	0	3.0	5.0	5.0	3.0	4.0	4.0	2.0	1.0	0	3.0	2.0	2.0	1.0	2.0	4.0	3.0	5.0	2.9	6.0
13	7.0	8.0	9.0	11.0	11.0	9.0	8.0	6.0	3.0	3.0	4.0	2.0	0	0	1.0	1.0	5.0	6.0	5.0	5.0	2.0	3.0	5.0	10.0	5.2	11.0
14	16.0	19.0	20.0	21.0	18.0	15.0	16.0	17.0	19.0	19.0	15.0	13.0	11.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	16.8	21.0
15	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
16	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
17	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
18	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
19	25.0	24.0	23.0	21.0	21.0	18.0	18.0	16.0	14.0	10.0	6.0	5.0	6.0	10.0	11.0	10.0	11.0	13.0	14.0	16.0	15.0	14.0	12.0	10.0	25.7	24.0
20	9.0	9.0	7.0	7.0	8.0	8.0	8.0	10.0	12.0	13.0	14.0	14.0	14.0	11.0	9.0	8.0	6.0	5.0	6.0	8.0	7.0	3.0	5.0	5.0	8.6	14.0
21	6.0	9.0	8.0	8.0	10.0	10.0	11.0	11.0	10.0	10.0	11.0	13.0	14.0	13.0	12.0	12.0	11.0	9.0	7.0	7.0	9.0	8.0	9.0	8.0	9.8	14.0
22	8.0	8.0	9.0	9.0	8.0	8.0	7.0	6.0	8.0	10.0	12.0	11.0	12.0	15.0	13.0	12.0	12.0	11.0	8.0	8.0	10.0	13.0	12.0	10.0	10.0	15.0
23	7.0	7.0	7.0	6.0	5.0	6.0	7.0	3.0	5.0	8.0	11.0	13.0	15.0	18.0	19.0	20.0	17.0	14.0	9.0	7.0	9.0	5.0	7.0	9.0	9.8	20.0
24	9.0	11.0	12.0	14.0	16.0	16.0	17.0	20.0	23.0	23.0	21.0	23.0	28.0	28.0	30.0	29.0	24.0	22.0	22.0	22.0	18.0	15.0	12.0	12.0	19.5	30.0
25	14.0	13.0	12.0	8.0	11.0	11.0	14.0	15.0	16.0	15.0	11.0	9.0	7.0	6.0	3.0	3.0	3.0	5.0	7.0	10.0	7.0	6.0	6.0	6.0	9.1	16.0
26	7.0	5.0	5.0	5.0	5.0	10.0	8.0	6.0	6.0	7.0	8.0	8.0	9.0	9.0	10.0	9.0	6.0	4.0	3.0	4.0	5.0	6.0	7.0	12.0	7.0	12.0
27	11.0	11.0	11.0	12.0	14.0	15.0	15.0	15.0	18.0	19.0	17.0	16.0	15.0	13.0	11.0	11.0	11.0	10.0	6.0	6.0	9.0	10.0	9.0	7.0	12.2	19.0
28	6.0	6.0	6.0	7.0	7.0	6.0	4.0	7.0	11.0	11.0	11.0	13.0	13.0	14.0	16.0	16.0	14.0	10.0	9.0	9.0	10.0	12.0	11.0	7.0	9.8	16.0
29	1.0	3.0	6.0	9.0	9.0	10.0	6.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	6.3	10.0
30	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
AV	9.0	9.4	9.8	9.8	10.1	10.1	10.4	10.8	12.2	13.6	13.2	13.5	13.3	13.0	12.9	12.2	11.2	10.2	9.3	9.3	9.2	9.0	8.6	8.8	11.1	10.0
SD	5.8	5.5	5.7	6.3	6.1	5.9	6.0	6.0	6.5	7.6	7.1	6.8	7.2	6.9	7.4	7.7	6.9	6.7	6.8	6.4	6.3	6.2	6.0	6.0	5.4	10.0

ADDDIT 111 MAY 791

B-15

WIND SPEED (001011)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

RATTELLE WIND STUDY.#505
TEHACHAPI MTNS, CA.
SITE 2

OCT. 1979

AEROVTRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SURJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

B-16

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	( )	( )
2	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	( )	( )
3	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	( )	( )
4	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	( )	( )
5	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	( )	( )
6	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	( )	( )
7	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	( )	( )
8	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	( )	( )
9	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	( )	( )
10	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	( )	( )
11	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	( )	( )
12	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	( )	( )
13	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	( )	( )
14	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	( )	( )
15	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	( )	( )
16	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	( )	( )
17	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	( )	( )
18	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	( )	( )
19	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	( )	( )
20	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	( )	( )
21	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	( )	( )
22	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	( )	( )
23	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	(O)	( )	( )
24	16.2	15.5	14.5	11.7	13.3	15.9	17.1	17.1	15.3	15.2	11.9	12.3	11.8	9.3	7.7	5.5	4.6	7.3	8.7	7.3	8.9	9.0	10.1	11.6	11.6	17.1
25	12.5	10.6	10.3	11.6	10.8	10.3	10.7	10.6	9.1	7.8	8.1	10.9	10.0	8.8	8.8	3.7	12.4	18.5	26.0	25.3	24.5	24.2	25.2	27.0	14.1	27.0
26	26.5	28.5	33.6	34.7	36.5	37.7	30.7	21.8	26.7	22.1	13.4	6.6	3.5	2	2.1	7.1	16.5	19.4	20.4	18.8	15.9	16.3	16.5	15.5	19.6	37.7
27	14.5	11.8	10.2	6.8	2.9	2.1	1.7	1.3	3	0	4	7	9	1.5	6.7	13.7	18.6	21.7	23.4	25.3	24.0	23.1	26.0	26.6	11.0	26.6
28	25.5	31.1	28.3	33.2	36.6	35.6	36.5	37.7	38.0	41.1	42.4	43.1	42.4	32.7	23.6	18.0	20.2	20.6	22.1	22.4	19.6	21.0	21.5	20.1	29.7	43.1
29	22.2	20.8	19.1	17.5	17.0	16.0	15.0	21.4	20.2	17.7	16.3	13.7	12.8	19.7	21.6	21.2	22.4	20.7	31.8	30.1	21.9	24.4	21.2	18.0	20.5	31.8
30	4.8	0	1.9	1.6	2.4	4.6	1.0	1.8	2.0	2.3	2.3	2.4	1.5	1.2	5.8	10.0	13.9	14.9	13.5	10.9	10.5	10.8	12.3	12.6	6.2	14.9
31	15.0	15.6	15.7	15.9	16.6	15.9	18.5	18.2	20.3	20.0	21.0	20.8	19.8	18.4	20.5	22.4	23.0	23.1	23.6	24.6	24.9	20.6	14.5	10.0	19.1	24.9
AV	17.2	16.7	16.7	16.6	17.0	17.3	16.4	16.2	16.5	15.8	14.5	13.8	12.8	11.5	12.1	12.4	15.4	17.6	19.3	19.3	18.2	18.1	18.0	17.4	15.7	( )
SD	6.8	9.4	9.6	11.0	12.4	12.2	11.7	11.1	11.8	12.2	12.4	12.6	12.7	10.7	7.8	6.8	6.1	7.7	8.3	7.9	5.9	5.6	5.4	5.8	6.8	( )

WIND SPEED (CROSSWIND)
 MILES/HOUR
 LEVEL HEIGHT : 10 METERS

RATTELL WIND STUDY, #505
 TEHACHAPI MTS, CA.
 SITE 2

NOV. 1979

AFROVIRONMENT INC.

*****
 * PRELIMINARY DATA *
 * AS OF 26/AUG/80 *
 *****
 * SUBJECT TO *
 * REVISION *
 *****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK	
1	2.9	2.6	8.3	10.3	12.5	14.1	14.4	17.6	18.9	19.8	20.3	20.8	20.1	17.5	13.0	11.6	8.6	6.1	3.0	.5	1.2	2.6	3.2	5.5	10.6	20.8	
2	10.4	9.4	10.2	12.6	13.1	10.8	11.5	14.1	16.4	15.6	13.7	14.1	15.3	12.0	8.6	6.5	1.6	.6	3.0	2.2	3.7	4.3	5.2	4.1	9.2	16.4	
3	3.8	9.5	11.9	9.0	5.1	4.3	6.1	5.5	2.2	4.7	8.6	12.7	10.6	8.6	7.8	3.9	7.7	4.2	8.4	13.6	19.2	15.2	10.5	12.5	8.6	19.2	
4	16.6	19.9	22.5	22.3	19.4	20.5	17.1	14.5	9.4	20.5	34.0	34.8	27.6	29.4	29.4	29.8	33.1	31.7	30.8	28.7	32.1	27.9	20.4	20.4	24.7	34.8	
5	18.3	18.4	10.1	5.7	4.5	3.1	8.3	14.3	19.1	20.1	23.6	22.9	26.3	24.6	22.8	22.6	22.2	20.2	21.1	24.2	26.5	26.6	25.2	29.3	19.2	29.3	
6	27.4	25.9	23.5	25.6	28.3	27.0	26.7	25.6	25.6	24.5	24.2	25.8	23.3	18.4	17.6	20.1	20.8	18.6	16.2	15.3	13.1	15.2	20.3	24.9	22.2	28.3	
7	27.0	30.3	30.2	24.7	21.7	19.5	22.0	23.6	27.1	29.8	27.7	30.2	31.0	34.0	34.3	33.2	27.1	32.9	25.7	20.3	14.4	14.0	8.7	8.6	24.9	34.3	
8	3.2	6.5	4.7	8.3	13.4	16.6	19.5	19.9	22.9	24.7	22.8	19.3	14.5	9.3	10.8	11.0	11.8	14.0	22.4	24.6	26.1	27.7	27.0	26.6	17.1	27.7	
9	28.0	27.5	25.4	25.3	28.3	26.9	24.1	20.4	20.1	18.1	23.2	26.7	30.0	34.8	33.6	34.4	35.6	34.4	39.4	39.4	35.2	23.7	18.2	9.8	27.6	39.4	
10	3.6	5.3	9.0	7.2	12.1	11.5	12.5	14.1	13.7	15.6	16.1	14.0	11.5	6.3	2.8	1.1	.0	7.0	12.9	8.9	11.2	6.2	8.1	7.3	9.1	16.1	
11	9.8	12.1	11.7	12.8	16.9	19.5	18.8	18.3	15.0	13.8	5.9	.8	3.4	8.1	10.0	10.3	11.7	11.7	12.5	17.0	18.3	19.7	21.4	20.3	13.3	21.4	
12	20.5	20.5	20.3	21.2	20.8	20.1	21.8	21.8	23.1	23.7	20.8	21.0	21.1	20.1	20.2	17.7	15.1	12.0	11.2	14.5	16.0	14.6	14.4	15.7	18.7	23.7	
13	16.4	16.0	16.0	15.7	15.0	16.6	16.5	17.9	19.1	19.5	20.1	21.2	20.4	17.5	16.6	13.2	12.0	11.8	15.2	17.0	18.5	18.5	19.8	22.4	17.2	22.4	
14	22.2	21.3	22.1	23.4	24.0	26.9	26.1	25.5	29.1	28.5	29.3	26.5	26.2	27.4	24.1	21.7	17.8	19.3	19.5	20.1	23.6	26.1	26.6	27.3	24.4	29.3	
15	27.3	27.7	22.3	22.7	21.5	21.9	21.6	22.2	20.5	21.0	21.3	20.3	19.9	21.3	18.1	16.1	15.4	15.6	16.1	15.2	14.7	14.2	15.1	12.8	19.4	27.7	
16	12.4	15.2	15.1	15.6	15.8	15.1	18.9	19.7	19.5	18.7	17.5	16.7	13.7	11.7	11.0	8.5	6.7	7.2	8.5	9.1	7.2	6.5	7.8	15.4	13.1	19.7	
17	25.6	25.2	25.7	15.0	8.1	13.4	12.9	12.9	11.7	13.7	16.3	17.8	19.4	20.4	19.4	18.1	14.8	19.7	21.5	25.0	27.6	33.5	33.6	30.7	20.1	33.6	
18	29.6	28.2	19.5	22.3	31.8	39.2	39.9	42.7	40.8	37.0	39.8	28.6	18.3	12.9	17.2	17.2	14.2	13.9	14.6	13.9	12.4	10.2	8.9	5.6	23.3	42.7	
19	4.1	4.6	3.3	2.4	1.9	3.3	6.9	8.4	8.8	7.4	7.3	8.6	7.2	6.0	7.3	8.5	9.3	8.5	8.2	7.7	7.0	6.1	5.8	4.6	6.4	9.3	
20	2.3	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	3.9	9.1	10.5	11.3	7.4	2.1	8.7	12.5	16.8	8.5	16.8	
21	17.8	16.8	18.1	17.5	19.5	20.3	16.7	12.9	11.5	11.3	9.6	9.1	9.3	8.5	5.1	1.7	4.3	3.3	2.5	2.2	2.2	3.1	1.8	1.9	9.5	20.3	
22	1.2	.2	.5	1.2	1.3	4.5	8.6	8.2	8.9	2.7	1.9	3.9	4.0	7.3	8.7	13.2	18.5	17.2	12.6	9.7	12.1	18.2	22.0	25.7	8.9	25.7	
23	29.1	28.9	21.1	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	(RF1)	5.4	21.1	29.1
24	22.3	14.3	15.0	16.8	21.0	21.2	22.7	26.0	26.1	18.7	17.0	15.5	19.4	22.6	22.9	24.2	26.3	32.2	34.0	32.6	30.0	27.8	21.3	16.8	22.8	34.0	
25	17.5	12.1	12.8	15.3	24.7	29.5	36.4	37.7	34.8	30.3	27.2	20.7	19.3	19.0	21.7	21.4	22.5	25.2	26.7	26.0	27.8	24.4	29.1	30.0	24.7	37.7	
26	29.1	30.3	31.7	29.1	28.6	26.9	25.9	29.2	32.1	26.2	25.3	22.0	22.0	23.0	19.9	18.8	15.1	20.2	34.1	41.0	32.6	25.2	19.6	17.7	26.1	41.0	
27	19.6	16.7	7.1	1.4	1.5	7.5	9.2	12.7	12.5	14.7	16.7	14.3	13.3	11.5	10.1	7.3	6.3	9.9	11.7	14.7	14.8	19.0	19.3	21.6	12.2	21.6	
28	21.4	24.4	22.8	24.8	23.2	20.8	22.6	23.9	26.0	25.1	25.7	22.3	14.6	9.8	6.6	3.4	6.0	9.3	15.1	17.6	19.7	19.4	20.4	18.9	18.5	26.0	
29	19.3	12.0	10.3	5.5	4.4	3.3	2.8	4.7	1.7	1.3	2.0	1.6	3.2	1.0	1.8	2.2	8.0	11.0	12.6	9.2	8.1	7.2	9.8	8.5	6.3	19.3	
30	12.8	8.6	8.0	8.8	9.0	6.2	2.0	2.3	6.7	6.4	8.9	6.7	2.8	2.6	3.4	3.5	5.0	7.5	9.4	12.2	12.0	8.3	16.3	5.5	7.3	16.3	
AV	16.7	16.9	15.8	15.1	16.0	16.8	17.6	18.5	18.7	18.3	18.8	17.9	16.7	15.9	15.2	14.0	14.0	15.1	16.6	16.9	16.9	16.3	16.3	15.8	16.5	(1	
SD	9.3	8.8	8.0	8.1	8.9	9.1	9.0	9.1	9.4	8.6	9.1	8.4	8.0	8.9	8.8	9.3	8.8	9.1	9.4	10.0	9.7	8.7	8.1	8.7	6.8	(1	

WIND SPEED (CC1011)

MILES/HOUR

LEVEL HEIGHT : 10 METERS

RATTELE WIND STUDY, #505

TEHACHAPI MTS., CA.

SITE 2

DEC. 1979

AEROVIRONMENT INC.

*****
 * PRELIMINARY DATA *
 * AS OF 26/AUG/80 *
 *****
 * SUBJECT TO *
 * REVISION *
 *****

CLOCK HOUR (LOCAL STANDARD TIME)

B-18

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	16.6	15.4	16.1	19.6	19.7	20.4	20.5	20.8	18.7	18.8	17.5	13.2	13.8	13.9	12.1	9.4	8.8	6.9	8.7	8.7	6.8	4.2	2.8	3.1	13.1	20.8
2	8.4	7.5	10.1	8.9	3.4	3.6	2.7	1.5	3.2	2.7	2.3	2.9	1.6	2.5	2.7	3.5	1.9	2.9	2.6	3.7	1.5	1.5	2.0	5.7	3.5	10.1
3	7.3	8.0	6.3	6.8	6.8	10.2	10.6	9.5	9.3	10.3	8.9	6.3	6.6	8.8	6.5	5.8	3.5	4.5	5.0	6.7	8.6	10.5	11.6	10.7	7.9	11.6
4	10.0	8.7	6.3	6.6	5.2	1.4	2.7	2.4	2.3	2.5	2.5	1.9	4.0	3.7	3.0	6.5	19.3	26.2	26.7	24.1	28.9	29.4	30.2	34.9	11.6	34.9
5	40.0	39.7	43.0	38.0	24.1	24.1	22.0	15.8	8.9	4.8	1.7	1.6	2.0	3.3	6.8	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	18.4	43.0
6	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
7	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
8	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
9	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
10	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
11	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
12	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
13	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
14	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
15	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
16	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
17	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
18	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
19	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
20	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
21	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
22	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
23	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
24	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
25	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
26	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
27	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
28	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
29	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
30	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
31	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
AV	16.5	15.9	16.4	16.0	11.8	11.9	11.3	9.6	8.1	6.8	5.8	4.8	5.6	6.4	6.2	6.3	8.4	10.1	10.8	10.8	11.5	11.4	11.2	13.6	10.9	[ ]
SD	12.2	12.3	13.8	12.0	8.4	9.0	8.8	7.9	6.3	7.1	6.7	4.6	4.5	4.3	3.0	2.1	6.8	9.4	9.5	7.9	10.4	10.9	11.8	12.6	5.0	[ ]

WIND SPEED (00:01)

MILES/HOUR

LEVEL HEIGHT : 10 METERS

RATTEILE WIND STUDY.#505

TEHACHAPI MTNS. CA.

SITE 3

MAY, 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVF	PEAK
1	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
2	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
3	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
4	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
5	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
6	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
7	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
8	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
9	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
10	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
11	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
12	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
13	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
14	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
15	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	19.0	13.0	9.0	8.0	11.0	6.0	8.0	10.0	10.5	19.0
16	10.0	6.0	3.0	3.0	3.0	3.0	4.0	1.0	2.0	2.0	2.0	1.0	3.0	3.0	5.0	6.0	5.0	5.0	7.0	FLI	FLI	FLI	FLI	FLI	3.6	10.0
17	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	[ ]	[ ]
18	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	[ ]	[ ]
19	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	[ ]	[ ]
20	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	[ ]	[ ]
21	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	[ ]	[ ]
22	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	[ ]	[ ]
23	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	[ ]	[ ]
24	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	[ ]	[ ]
25	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	[ ]	[ ]
26	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	[ ]	[ ]
27	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	[ ]	[ ]
28	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	[ ]	[ ]
29	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	[ ]	[ ]
30	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	[ ]	[ ]
31	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	FLI	[ ]	[ ]
AV	10.0	6.0	3.0	3.0	3.0	3.0	4.0	1.0	2.0	2.0	2.0	1.0	3.0	3.0	5.0	6.0	12.0	9.0	8.0	8.0	11.0	6.0	8.0	10.0	7.0	[ ]
SD	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	7.0	4.0	1.0	2.0	2.0	2.0	2.0	2.0	3.5	[ ]

B-19

B-20

JUN, 1979

*****
*
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*
*****
*
* SUBJECT TO *
* REVISION *
*
*****

[illegible]

ADJUT   111 MAY 791

WIND SPEED (CC101)

MILES/HOUR

LEVEL HEIGHT : 10 METERS

BATELLE WIND STUDY, #505

TEHACHA PT MTS, CA.

SITE 3

JUL. 1979

AEROVIRONMENT INC.

*****
*
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*
*****
*
* SUBJECT TO *
* REVISION *
*
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
2	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
3	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
4	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
5	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
6	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
7	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
8	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
9	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
10	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
11	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
12	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
13	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
14	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
15	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
16	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
17	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
18	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
19	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
20	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
21	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
22	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
23	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
24	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
25	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
26	3.0	6.0	5.0	2.0	2.0	2.0	1.0	1.0	4.0	4.0	4.0	3.0	3.0	3.0	2.0	3.0	5.0	6.0	9.0	10.0	11.0	13.0	14.0	15.0	3.1	6.0
27	10.0	8.0	9.0	14.0	17.0	17.0	18.0	18.0	13.0	10.0	9.0	10.0	10.0	9.0	8.0	8.0	8.0	9.0	9.0	11.0	12.0	11.0	10.0	12.0	11.3	18.0
28	12.0	11.0	11.0	12.0	10.0	13.0	13.0	12.0	10.0	8.0	6.0	7.0	6.0	7.0	7.0	8.0	8.0	6.0	7.0	10.0	14.0	13.0	11.0	11.0	9.7	14.0
29	8.0	9.0	10.0	12.0	14.0	16.0	16.0	16.0	11.0	3.0	1.0	3.0	1.0	1.0	3.0	4.0	7.0	8.0	9.0	10.0	11.0	10.0	9.0	11.0	8.5	16.0
30	10.0	6.0	7.0	5.0	4.0	1.0	6.0	9.0	7.0	5.0	5.0	6.0	5.0	4.0	4.0	4.0	4.0	3.0	3.0	2.0	3.0	5.0	6.0	4.9	10.0	
31	6.0	5.0	4.0	4.0	4.0	2.0	1.0	1.0	0	0	0	2.0	3.0	4.0	5.0	6.0	6.0	6.0	6.0	8.0	8.0	7.0	8.0	8.0	4.3	8.0
AV	8.2	7.5	7.7	8.2	8.2	8.2	9.2	9.5	7.5	5.0	3.6	4.4	4.6	4.7	4.6	5.1	5.9	5.9	6.3	7.9	9.0	8.7	8.9	9.9	6.7	( )
SD	3.0	2.1	2.6	4.6	6.0	7.3	6.9	6.7	4.4	3.3	3.2	2.9	2.8	2.4	2.1	2.0	1.8	2.1	3.0	3.2	3.9	3.8	3.0	3.1	2.8	( )

WIND SPEED 1001011
MILES/HOUR
LEVEL HEIGHT : 10 METERS

RATTELIE WIND STUDY, #505
TEHACHAPI MTNS, CA.
SITE 3

AUG. 1979

AFROVIRONMENT INC.

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*
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
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* SUBJECT TO *
* REVISION *
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CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK	
1	9.0	9.0	9.0	7.0	9.0	12.0	12.0	10.0	6.0	7.0	7.0	7.0	8.0	9.0	11.0	11.0	9.0	10.0	9.0	10.0	11.0	11.0	11.0	11.0	9.4	12.0	
2	10.0	11.0	9.0	9.0	9.0	11.0	12.0	11.0	10.0	8.0	6.0	6.0	6.0	5.0	5.0	6.0	6.0	6.0	8.0	10.0	10.0	9.0	13.0	11.0	8.6	13.0	
3	11.0	12.0	12.0	13.0	15.0	16.0	14.0	13.0	7.0	3.0	1.0	2.0	5.0	4.0	3.0	5.0	6.0	6.0	8.0	12.0	10.0	10.0	9.0	11.0	8.7	16.0	
4	11.0	12.0	10.0	7.0	7.0	7.0	7.0	6.0	6.0	5.0	6.0	6.0	7.0	5.0	6.0	6.0	6.0	5.0	8.0	14.0	14.0	13.0	7.0	11.0	8.0	14.0	
5	10.0	10.0	8.0	9.0	9.0	6.0	6.0	8.0	6.0	5.0	4.0	4.0	5.0	6.0	5.0	4.0	4.0	4.0	7.0	11.0	13.0	12.0	12.0	13.0	7.5	13.0	
6	11.0	7.0	7.0	8.0	10.0	9.0	6.0	6.0	5.0	3.0	2.0	3.0	3.0	3.0	4.0	4.0	4.0	5.0	4.0	6.0	5.0	4.0	4.0	5.0	5.3	11.0	
7	4.0	4.0	3.0	4.0	3.0	2.0	1.0	1.0	1.0	2.0	2.0	3.0	3.0	3.0	4.0	4.0	5.0	5.0	6.0	8.0	11.0	13.0	12.0	11.0	4.7	13.0	
8	10.0	8.0	7.0	6.0	6.0	7.0	5.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	6.0	5.0	6.0	8.0	9.0	9.0	9.0	8.0	6.2	10.0	
9	6.0	7.0	10.0	10.0	10.0	10.0	9.0	6.0	1.0	1.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0	1.0	2.0	4.0	8.0	5.0	1.0	2.0	4.5	10.0	
10	2.0	3.0	3.0	2.0	5.0	6.0	6.0	5.0	4.0	5.0	6.0	6.0	5.0	6.0	7.0	10.0	10.0	8.0	9.0	7.0	4.0	1.0	3.0	3.0	5.3	10.0	
11	4.0	7.0	5.0	3.0	4.0	8.0	14.0	13.0	9.0	15.0	15.0	17.0	15.0	16.0	18.0	17.0	14.0	15.0	14.0	13.0	10.0	8.0	9.0	10.0	11.4	18.0	
12	8.0	3.0	1.0	1.0	5.0	6.0	4.0	1.0	3.0	3.0	3.0	2.0	3.0	7.0	5.0	4.0	3.0	7.0	9.0	11.0	17.0	12.0	10.0	9.0	5.7	17.0	
13	8.0	6.0	7.0	7.0	9.0	10.0	9.0	6.0	5.0	5.0	6.0	5.0	7.0	6.0	7.0	8.0	8.0	10.0	12.0	13.0	11.0	10.0	8.0	7.0	7.9	13.0	
14	6.0	5.0	5.0	9.0	13.0	14.0	13.0	9.0	3.0	1.0	1.0	2.0	2.0	2.0	5.0	5.0	5.0	4.0	8.0	11.0	11.0	9.0	7.0	9.0	6.6	14.0	
15	10.0	9.0	8.0	6.0	7.0	4.0	3.0	5.0	5.0	6.0	11.0	6.0	7.0	5.0	4.0	3.0	3.0	2.0	1.0	3.0	5.0	5.0	6.0	6.0	5.4	11.0	
16	4.0	3.0	4.0	3.0	6.0	7.0	10.0	10.0	9.0	12.0	15.0	13.0	16.0	13.0	8.0	7.0	5.0	5.0	8.0	5.0	5.0	5.0	3.0	5.0	7.5	16.0	
17	8.0	6.0	6.0	5.0	5.0	3.0	6.0	4.0	4.0	4.0	7.0	6.0	7.0	6.0	5.0	4.0	3.0	2.0	2.0	2.0	4.0	4.0	7.0	7.0	4.9	8.0	
18	5.0	4.0	6.0	7.0	8.0	7.0	3.0	3.0	5.0	4.0	2.0	3.0	3.0	6.0	6.0	5.0	4.0	6.0	6.0	2.0	2.0	7.0	8.0	8.0	5.0	8.0	
19	6.0	6.0	6.0	6.0	6.0	3.0	6.0	7.0	8.0	7.0	5.0	4.0	5.0	4.0	3.0	2.0	1.0	1.0	2.0	3.0	5.0	5.0	4.0	10.0	4.8	10.0	
20	5.0	7.0	7.0	10.0	11.0	12.0	11.0	12.0	10.0	9.0	8.0	11.0	11.0	10.0	8.0	8.0	7.0	4.0	5.0	5.0	2.0	3.0	3.0	5.0	7.7	12.0	
21	6.0	10.0	9.0	8.0	8.0	9.0	9.0	10.0	10.0	11.0	9.0	7.0	6.0	6.0	6.0	9.0	9.0	8.0	7.0	10.0	8.0	6.0	7.0	6.0	8.0	11.0	
22	5.0	3.0	3.0	4.0	5.0	6.0	5.0	6.0	7.0	8.0	7.0	8.0	8.0	8.0	8.0	5.0	9.0	8.0	8.0	8.0	8.0	7.0	6.0	6.0	6.5	9.0	
23	7.0	7.0	5.0	6.0	6.0	5.0	5.0	5.0	4.0	4.0	5.0	8.0	8.0	6.0	6.0	7.0	7.0	6.0	6.0	6.0	7.0	6.0	6.0	7.0	6.0	8.0	
24	9.0	9.0	9.0	6.0	9.0	8.0	7.0	10.0	8.0	7.0	10.0	8.0	8.0	8.0	10.0	8.0	8.0	7.0	6.0	6.0	6.0	7.0	8.0	9.0	11.0	8.2	11.0
25	14.0	12.0	10.0	6.0	6.0	11.0	12.0	9.0	7.0	7.0	4.0	4.0	7.0	9.0	11.0	10.0	12.0	11.0	10.0	11.0	11.0	9.0	8.0	9.0	9.2	14.0	
26	9.0	7.0	7.0	9.0	8.0	7.0	6.0	7.0	5.0	2.0	3.0	2.0	3.0	2.0	4.0	4.0	4.0	6.0	3.0	8.0	8.0	8.0	7.0	9.0	5.8	9.0	
27	6.0	7.0	6.0	5.0	5.0	7.0	4.0	5.0	4.0	7.0	9.0	5.0	7.0	7.0	3.0	2.0	1.0	4.0	4.0	8.0	6.0	10.0	8.0	11.0	5.9	11.0	
28	11.0	10.0	10.0	11.0	12.0	12.0	11.0	13.0	14.0	14.0	12.0	12.0	13.0	13.0	8.0	4.0	4.0	7.0	9.0	8.0	6.0	8.0	9.0	9.0	10.0	14.0	
29	10.0	9.0	6.0	7.0	8.0	6.0	6.0	6.0	7.0	12.0	12.0	11.0	11.0	10.0	8.0	8.0	9.0	7.0	5.0	3.0	1.0	2.0	2.0	1.0	7.0	12.0	
30	8.0	7.0	7.0	7.0	8.0	6.0	7.0	5.0	5.0	5.0	7.0	6.0	5.0	6.0	6.0	6.0	5.0	5.0	5.0	2.0	4.0	9.0	12.0	14.0	6.5	14.0	
31	15.0	18.0	18.0	15.0	11.0	10.0	7.0	9.0	3.0	9.0	9.0	8.0	6.0	6.0	7.0	6.0	7.0	7.0	6.0	6.0	6.0	7.0	6.0	7.0	8.5	18.0	
AV	8.0	7.7	7.2	7.0	7.8	8.0	7.6	7.1	5.9	6.3	6.5	6.2	6.7	6.6	6.4	6.2	5.9	6.1	6.5	7.5	7.7	7.6	7.3	8.1	7.0	( )	
SD	3.0	3.3	3.2	3.0	2.7	3.2	3.4	3.3	2.9	3.6	3.8	3.6	3.5	3.2	3.0	3.1	3.0	2.9	2.9	3.5	3.7	3.1	3.1	3.1	1.7	( )	

WIND SPEED 1001011

MILES/HOUR

LEVEL HEIGHT : 10 METERS

RATTLIE WIND STUDY, #505

TEHACHAPI MTNS. CA.

SITE 3

SEP. 1979

AFROVIRONMENT INC.

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CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	9.0	8.0	6.0	6.0	6.0	8.0	7.0	5.0	3.0	2.0	1.0	1.0	1.0	2.0	4.0	5.0	6.0	5.0	5.0	5.0	8.0	9.0	9.0	7.0	5.3	9.0
2	8.0	7.0	7.0	8.0	8.0	10.0	13.0	14.0	13.0	12.0	10.0	9.0	6.0	7.0	7.0	6.0	6.0	6.0	6.0	7.0	9.0	11.0	12.0	13.0	9.0	14.0
3	13.0	10.0	10.0	11.0	7.0	12.0	14.0	14.0	15.0	13.0	9.0	5.0	2.0	2.0	3.0	3.0	4.0	5.0	7.0	7.0	12.0	14.0	13.0	12.0	9.0	15.0
4	10.0	9.0	7.0	7.0	10.0	11.0	9.0	12.0	15.0	11.0	12.0	5.0	3.0	1.0	1.0	1.0	2.0	3.0	5.0	7.0	10.0	10.0	12.0	12.0	7.7	15.0
5	13.0	12.0	12.0	13.0	14.0	14.0	11.0	12.0	9.0	3.0	1.0	3.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	5.0	5.0	3.0	3.0	5.9	14.0
6	3.0	4.0	7.0	8.0	5.0	2.0	4.0	2.0	1.0	1.0	3.0	4.0	4.0	3.0	1.0	1.0	1.0	1.0	1.0	3.0	4.0	8.0	8.0	3.0	3.3	8.0
7	7.0	11.0	12.0	15.0	14.0	15.0	14.0	15.0	15.0	14.0	12.0	14.0	15.0	17.0	18.0	16.0	12.0	10.0	5.0	6.0	4.0	1.0	7.0	9.0	11.6	18.0
8	8.0	8.0	8.0	9.0	7.0	6.0	4.0	2.0	1.0	2.0	2.0	5.0	6.0	3.0	2.0	4.0	4.0	3.0	4.0	7.0	8.0	10.0	8.0	8.0	5.3	10.0
9	4.0	6.0	5.0	3.0	4.0	3.0	5.0	6.0	5.0	5.0	6.0	6.0	6.0	3.0	4.0	5.0	4.0	4.0	5.0	7.0	11.0	11.0	10.0	9.0	5.7	11.0
10	8.0	7.0	10.0	7.0	8.0	8.0	6.0	6.0	5.0	3.0	2.0	1.0	2.0	4.0	5.0	5.0	4.0	3.0	4.0	6.0	9.0	9.0	9.0	10.0	5.9	10.0
11	10.0	10.0	11.0	11.0	10.0	10.0	9.0	8.0	6.0	4.0	3.0	2.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	8.0	8.0	7.0	8.0	6.8	11.0
12	9.0	7.0	7.0	9.0	8.0	7.0	8.0	6.0	4.0	2.0	1.0	1.0	2.0	1.0	2.0	3.0	3.0	3.0	4.0	5.0	6.0	8.0	9.0	8.0	5.1	9.0
13	6.0	8.0	8.0	8.0	5.0	8.0	7.0	9.0	6.0	4.0	3.0	3.0	3.0	5.0	5.0	6.0	7.0	6.0	7.0	7.0	7.0	8.0	8.0	8.0	6.3	9.0
14	8.0	9.0	9.0	10.0	10.0	9.0	6.0	6.0	4.0	4.0	2.0	2.0	3.0	3.0	4.0	4.0	4.0	4.0	6.0	5.0	5.0	4.0	4.0	3.0	5.3	10.0
15	4.0	5.0	5.0	1.0	4.0	7.0	7.0	6.0	4.0	1.0	3.0	3.0	2.0	2.0	2.0	2.0	3.0	1.0	3.0	3.0	1.0	1.0	1.0	1.0	3.0	7.0
16	3.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0	4.0	5.0	5.0	4.0	4.0	4.0	3.0	4.0	5.0	6.0	2.4	6.0
17	7.0	6.0	7.0	7.0	7.0	7.0	7.0	6.0	5.0	3.0	3.0	4.0	4.0	5.0	6.0	6.0	7.0	6.0	7.0	9.0	8.0	8.0	9.0	8.0	6.3	9.0
18	10.0	9.0	9.0	10.0	14.0	12.0	10.0	10.0	8.0	7.0	5.0	5.0	5.0	6.0	5.0	6.0	7.0	6.0	4.0	7.0	7.0	9.0	8.0	9.0	7.8	14.0
19	9.0	12.0	14.0	15.0	15.0	15.0	16.0	15.0	12.0	10.0	5.0	1.0	1.0	2.0	4.0	5.0	2.0	1.0	6.0	10.0	11.0	11.0	10.0	10.0	8.8	16.0
20	9.0	9.0	9.0	2.0	1.0	4.0	9.0	10.0	14.0	15.0	15.0	16.0	17.0	14.0	8.0	6.0	6.0	6.0	4.0	3.0	3.0	3.0	1.0	2.0	7.8	17.0
21	4.0	5.0	7.0	7.0	14.0	12.0	16.0	16.0	16.0	12.0	14.0	16.0	14.0	16.0	14.0	13.0	11.0	13.0	12.0	10.0	10.0	8.0	3.0	3.0	11.1	16.0
22	1.0	2.0	3.0	3.0	5.0	5.0	1.0	4.0	7.0	13.0	15.0	14.0	13.0	15.0	14.0	14.0	14.0	14.0	14.0	10.0	3.0	6.0	8.0	6.0	8.5	15.0
23	5.0	2.0	1.0	2.0	1.0	1.0	1.0	3.0	2.0	3.0	8.0	11.0	14.0	18.0	17.0	18.0	18.0	17.0	14.0	12.0	13.0	16.0	15.0	15.0	9.4	18.0
24	14.0	14.0	13.0	16.0	14.0	12.0	15.0	18.0	21.0	21.0	17.0	18.0	19.0	24.0	27.0	25.0	32.0	34.0	31.0	35.0	37.0	35.0	30.0	30.0	23.0	37.0
25	25.0	21.0	17.0	10.0	14.0	16.0	15.0	16.0	21.0	21.0	20.0	16.0	13.0	10.0	6.0	3.0	2.0	1.0	2.0	6.0	10.0	10.0	10.0	10.0	12.3	25.0
26	9.0	8.0	5.0	1.0	1.0	4.0	9.0	11.0	11.0	10.0	13.0	13.0	14.0	13.0	12.0	10.0	9.0	7.0	6.0	4.0	7.0	7.0	9.0	11.0	8.5	14.0
27	16.0	19.0	19.0	18.0	22.0	21.0	20.0	16.0	19.0	18.0	16.0	18.0	22.0	21.0	21.0	20.0	17.0	16.0	15.0	14.0	12.0	7.0	11.0	13.0	12.1	22.0
28	12.0	12.0	11.0	9.0	9.0	7.0	9.0	8.0	5.0	8.0	11.0	12.0	12.0	13.0	12.0	9.0	10.0	12.0	7.0	8.0	22.0	22.0	15.0	23.0	11.6	23.0
29	18.0	8.0	1.0	3.0	7.0	7.0	6.0	7.0	8.0	6.0	7.0	9.0	10.0	4.0	3.0	4.0	7.0	6.0	7.0	7.0	6.0	10.0	10.0	10.0	7.1	18.0
30	7.0	4.0	3.0	3.0	1.0	6.0	6.0	5.0	5.0	5.0	5.0	7.0	7.0	6.0	4.0	4.0	4.0	5.0	3.0	[IM]	[IM]	[IM]	[IM]	[IM]	4.7	7.0
AV	9.0	8.4	8.1	7.7	8.2	8.6	8.8	8.9	8.6	7.8	7.5	7.5	7.5	7.6	7.4	7.2	7.2	6.9	6.7	7.6	8.9	9.4	9.1	9.3	8.1	[ ]
SD	4.9	4.4	4.4	4.7	5.2	4.8	4.8	4.9	6.1	5.9	5.6	5.7	6.1	6.5	6.5	5.9	6.3	6.7	5.8	5.9	6.7	6.4	5.3	6.0	4.1	[ ]

ADDDIT [11 MAY 79]

WIND SPEED ICC1011
MILES/HOUR
LEVEL HEIGHT : 10 METERS

RATTELE WIND STUDY, #505
TEHACHAPI MTNS. CA.
SITE 3

OCT. 1979

AEROVIRONMENT INC.

*****
*
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*
*****
*
* SUBJECT TO *
* REVISION *
*
*****

CLOCK HOUR (LOCAL STANDARD TIME)

B-24

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	( )	( )
2	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	( )	( )
3	1.7	4.9	8.2	8.4	6.4	6.7	5.2	10.2	9.3	9.0	11.0	9.4	9.9	8.2	10.2	7.2	9.0	9.4	9.5	8.9	6.6	5.3	4.2	4.2	7.6	11.0
4	3.9	5.7	7.4	5.8	5.1	7.3	7.1	6.9	7.5	7.6	9.3	7.5	8.5	7.2	7.7	7.8	5.0	5.7	2.6	3.5	3.4	3.8	8.6	7.4	6.3	9.3
5	7.0	7.3	6.7	8.0	9.3	9.3	6.3	3.7	2.0	2.7	3.1	4.1	3.6	1.9	3.1	1.9	2.0	4.3	6.7	7.5	8.5	8.5	6.3	6.7	5.4	9.3
6	8.3	9.8	11.5	12.1	11.7	11.6	6.7	3.3	3.3	7	1.0	1.5	1.6	2.0	2.3	1.8	1.9	5.0	5.7	6.6	8.4	8.1	8.1	6.3	5.7	12.1
7	9.3	9.4	9.8	8.6	7.7	8.3	8.1	7.4	6.1	3.9	2.8	2.1	2.1	2.7	3.6	6.1	6.0	6.7	8.4	9.7	8.9	10.0	8.1	6.6	6.8	10.0
8	6.3	6.8	7.1	7.3	5.8	7.8	11.4	8.5	7.7	5.6	2.0	2.4	2.2	3.2	3.1	2.4	1.9	4.1	8.4	8.2	6.1	6.0	4.6	9.3	5.8	11.4
9	10.2	8.3	8.7	10.1	12.0	10.4	10.0	11.6	13.5	16.2	13.4	12.4	9.4	8.6	7.8	6.7	7.0	6.8	7.3	8.6	7.9	8.3	5.1	6.0	9.4	16.2
10	5.1	5.8	8.1	7.9	7.8	10.6	14.3	13.3	11.7	10.0	11.0	7.1	8.9	9.3	9.9	8.1	8.3	6.2	7.1	6.0	4.1	3.0	2.9	4.2	7.9	14.3
11	2.9	2.9	3.6	4.8	6.1	3.6	5.4	4.4	3.5	1.4	2.4	4.4	4.3	3.0	2.4	2.3	5.4	7.9	8.9	9.1	9.1	10.9	9.8	10.2	5.4	10.9
12	10.1	8.5	10.0	11.1	11.3	11.3	11.5	11.4	9.5	4.2	4.2	2.6	2.2	3.1	3.6	3.3	5.2	6.8	8.7	9.0	10.6	11.1	9.9	8.2	7.8	11.5
13	6.9	5.3	5.0	5.4	5.7	5.5	4.2	6.0	6.7	3.7	3.2	4.5	4.0	5.8	6.1	5.7	6.7	5.4	8.0	8.0	6.1	7.5	6.8	6.9	5.8	8.0
14	5.7	6.4	7.7	8.3	7.9	10.0	9.2	10.2	9.9	6.9	3.3	3.7	5.5	4.6	6.1	5.6	6.3	8.0	8.8	8.9	8.3	5.1	5.2	7.0	7.0	10.2
15	10.3	11.5	10.6	10.4	12.8	13.6	13.0	13.8	13.1	8.6	4.3	3.3	3.6	4.4	5.5	5.3	5.7	7.3	7.6	8.1	7.4	6.6	6.3	6.9	8.3	13.8
16	9.8	9.0	8.2	9.4	7.9	7.4	7.4	7.2	7.0	7.7	5.6	5.0	4.6	3.7	3.1	4.3	5.4	6.5	6.4	8.0	6.3	5.8	6.5	6.5	6.6	9.8
17	6.8	5.4	7.2	8.6	6.8	6.7	9.0	9.7	9.0	6.3	6.5	5.4	5.3	4.9	8.1	13.7	13.7	12.7	12.8	11.8	11.5	8.9	9.2	9.6	8.7	13.7
18	7.3	7.9	7.6	10.9	9.6	8.1	8.9	8.9	7.8	7.7	6.5	7.4	8.6	8.4	9.5	10.2	11.5	13.6	13.2	13.9	11.6	13.5	12.8	11.7	9.9	13.9
19	16.0	13.9	10.2	10.7	9.6	11.1	10.4	13.0	15.7	15.0	10.7	11.6	12.7	11.7	11.6	15.3	13.0	11.9	8.9	7.5	3.3	7.6	13.7	11.8	11.5	16.0
20	11.8	14.2	14.0	13.6	13.6	13.3	14.4	13.1	14.0	15.2	15.5	13.9	12.5	12.1	12.4	12.0	11.2	10.9	12.9	14.4	13.6	13.2	13.8	12.4	13.3	15.5
21	8.6	7.7	8.2	11.1	8.2	3.1	3.4	4.8	6.2	7.1	8.6	8.2	5.3	2.5	1.8	2.0	4.1	6.3	6.7	7.5	9.3	9.8	9.0	12.0	6.7	12.0
22	12.8	6.7	8.2	8.3	6.5	1.7	4.8	7.4	10.3	8.2	8.6	6.0	7.0	7.4	4.6	1.7	2.9	2.9	4.0	2.5	4.5	1.8	6.3	5.7	5.9	12.8
23	2.8	5.3	2.3	2.9	2.4	2.2	2.4	2.5	4.0	3.0	5.2	6.4	7.1	10.0	5.7	3.1	8.0	4.5	5.9	8.9	5.0	8.5	10.9	13.4	5.5	13.4
24	11.3	8.7	7.5	8.7	16.0	16.4	16.4	17.7	19.9	17.0	14.1	11.0	10.3	10.4	7.6	7.2	9.6	8.3	7.9	8.6	11.4	14.2	17.9	14.5	12.2	19.9
25	11.6	14.4	14.1	15.7	16.7	17.1	15.6	14.7	11.1	12.4	13.4	10.8	8.3	6.0	5.8	7.2	10.0	8.4	12.5	12.3	10.0	7.8	9.5	9.5	11.5	17.1
26	12.0	14.0	14.0	13.6	12.4	14.1	10.6	7.6	7.6	9.0	5.6	5.5	5.4	5.6	5.4	6.9	9.6	10.8	10.6	10.9	11.4	9.8	8.1	9.8	9.6	14.1
27	8.4	8.8	6.5	7.5	6.7	5.2	4.6	3.1	2.0	1.8	2.4	2.6	4.5	5.6	6.5	10.1	10.8	11.7	12.0	11.5	12.7	14.3	15.0	14.2	7.9	15.0
28	13.6	16.3	14.7	15.8	14.2	12.7	12.2	12.3	12.0	11.0	11.6	13.1	15.5	17.7	18.8	19.9	21.5	22.5	21.7	19.4	17.7	16.7	16.8	15.2	16.0	22.5
29	14.3	13.0	12.0	14.1	8.3	11.0	7.0	6.4	5.4	4.3	6.0	5.5	7.4	6.4	8.3	10.2	10.3	10.8	11.5	11.7	10.6	9.1	8.7	4.6	9.0	14.3
30	4.2	3.1	3.1	6.3	6.6	4.7	1.9	2.9	4.0	2.8	2.9	3.2	4.3	7.3	9.3	9.7	11.4	12.5	13.2	12.4	12.2	12.3	12.2	11.1	7.2	13.2
31	11.0	11.0	11.2	10.5	14.6	14.1	11.7	11.2	9.5	8.6	7.9	7.1	7.5	8.5	8.5	9.6	10.8	11.5	12.8	14.4	13.0	13.1	10.2	8.0	10.7	14.6
AV	8.6	8.7	8.7	9.5	9.3	9.1	8.7	8.7	8.5	7.5	7.0	6.5	6.6	7.3	7.2	7.4	8.3	8.7	9.3	9.4	8.8	8.8	9.0	8.8	8.4	( )
SD	3.6	3.5	3.1	3.1	3.5	4.1	3.9	4.0	4.3	4.4	4.1	3.5	3.4	4.8	4.0	4.5	4.3	3.8	3.6	3.4	3.4	3.7	3.8	3.3	2.6	( )

WIND SPEED (00101)
 MILES/HOUR
 LEVEL HEIGHT : 10 METERS

BATTELL WIND STUDY, #505
 TEHACHAPI MTS., CA.
 SITE 3

NOV. 1979

AEROVIRONMENT INC.

*****
 * PRELIMINARY DATA *
 * AS OF 26/AUG/80 *
 *****
 * SUBJECT TO *
 * REVISION *
 *****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK	
1	7.0	1.7	5.3	5.5	5.6	6.0	5.3	5.2	4.0	6.4	7.7	9.4	7.2	5.6	4.4	5.7	4.4	2.1	2.2	1.8	1.0	2.6	3.8	2.0	4.7	9.4	
2	4.3	5.5	9.0	2.9	6.3	11.0	10.7	9.4	7.1	7.9	10.4	8.7	8.0	6.1	5.7	4.3	2.6	2.9	4.0	1.9	3.0	5.0	4.1	8.7	6.2	11.0	
3	11.2	10.3	7.0	6.1	6.2	4.8	4.8	4.5	4.6	13.6	13.1	9.5	6.4	5.9	3.9	5.4	9.6	9.2	9.9	11.4	9.3	11.0	11.4	12.9	8.4	13.6	
4	13.9	13.8	12.4	11.9	12.5	11.2	9.7	9.3	8.2	11.4	12.0	12.9	9.9	8.6	9.0	8.5	8.1	9.7	8.5	9.5	11.4	12.1	13.5	12.9	10.9	13.9	
5	12.8	12.3	12.0	9.9	7.1	3.2	3.4	4.8	5.6	3.8	3.7	4.7	2.9	3.9	4.3	7.7	7.0	3.9	6.5	10.1	14.6	18.3	19.6	13.4	8.1	19.6	
6	17.6	17.0	17.3	22.3	24.0	21.8	24.2	22.5	21.9	21.6	23.5	21.7	19.3	16.8	19.8	14.8	17.0	16.2	15.3	15.1	18.0	20.0	24.1	27.0	20.0	27.0	
7	30.3	19.0	26.6	29.2	25.9	21.8	26.0	30.4	19.7	16.8	23.7	28.7	24.1	31.8	31.5	31.6	35.0	26.9	24.9	23.7	19.3	13.9	9.7	7.5	24.1	35.0	
8	5.1	3.6	6.1	7.8	9.8	7.7	9.9	9.2	7.9	7.0	7.1	7.0	7.0	6.8	6.6	6.8	7.9	10.7	8.4	7.7	8.0	7.1	6.4	7.6	7.5	10.7	
9	8.7	8.4	8.8	10.1	8.7	8.2	10.1	11.0	8.8	9.1	10.1	9.6	8.5	10.0	10.6	9.4	8.4	8.2	10.5	9.9	9.3	9.4	12.0	10.7	9.5	12.0	
10	7.8	3.8	1.9	4.7	3.1	2.8	4.5	5.2	5.5	6.2	7.3	6.8	6.1	3.4	2.0	1.6	4.7	6.4	6.3	6.8	4.3	4.0	6.2	5.7	4.9	7.8	
11	4.9	6.6	10.5	13.1	13.9	14.1	14.3	8.5	7.4	4.8	3.3	4.6	6.0	7.0	5.8	3.6	2.4	7.1	5.5	4.6	4.5	4.7	5.1	3.9	6.9	14.3	
12	8.1	5.0	3.0	2.8	3.0	3.1	3.5	2.4	1.9	3.2	3.1	4.0	4.6	6.6	4.8	3.1	5.5	4.6	4.4	3.4	1.8	2.3	2.5	2.7	3.7	8.1	
13	1.0	2.5	1.6	2.2	3.2	3.3	4.4	3.0	2.9	4.8	3.9	3.2	4.3	2.0	2.8	4.0	5.9	6.5	5.4	4.7	5.1	3.2	3.0	4.2	3.6	6.5	
14	3.4	2.6	1.6	2.2	2.7	4.4	3.8	2.6	2.2	10.0	11.6	14.5	16.7	12.8	9.1	7.6	6.8	5.2	4.9	4.7	11.6	11.5	4.7	8.0	6.9	16.7	
15	3.6	2.9	2.1	1.3	1.7	1.5	2.0	3.2	2.8	6.1	5.4	2.7	5.2	6.0	2.9	2.4	2.2	1.6	1.2	.6	.2	.0	.6	.7	2.5	6.1	
16	.3	1.1	.9	1.3	1.1	6.1	12.0	10.3	11.8	12.5	13.4	9.1	10.5	10.6	9.1	8.7	10.6	8.3	13.8	17.1	8.4	6.0	10.6	14.2	8.7	17.1	
17	11.1	8.6	6.5	7.3	7.5	8.0	10.3	7.6	10.4	13.0	16.9	15.6	16.7	13.7	15.4	18.3	16.9	18.2	19.5	16.6	19.8	20.1	17.2	14.3	13.7	20.1	
18	13.7	16.0	12.4	18.1	17.4	16.4	15.9	14.1	11.8	9.7	9.7	11.9	11.9	12.0	12.0	14.8	15.4	15.2	16.6	16.6	15.6	14.5	7.0	(RF)	13.9	18.1	
19	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )	( )	
20	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	3.1	6.5	3.4	1.5	5.3	8.6	4.7	8.6
21	7.0	3.8	7.2	7.8	7.0	6.3	6.7	4.4	2.2	3.1	5.1	5.2	4.2	2.4	1.1	4.6	5.1	2.0	.6	.6	.8	1.3	1.0	1.7	3.8	7.8	
22	1.1	1.3	3.1	4.1	1.8	1.4	2.2	1.9	.8	2.8	3.9	3.8	4.1	4.9	4.6	7.0	10.3	10.9	9.6	9.5	11.3	11.7	11.6	12.4	5.7	12.4	
23	15.2	16.1	14.9	12.4	16.7	12.9	12.8	10.6	10.7	10.0	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	9.4	12.5	15.2	13.7	13.1	16.7
24	15.5	16.2	13.4	14.0	14.8	14.9	10.7	10.2	12.0	13.4	11.8	12.5	13.2	13.4	13.9	11.5	12.1	19.1	18.6	16.4	11.0	11.8	9.4	9.1	13.3	19.1	
25	8.8	11.3	11.4	11.6	12.0	10.7	11.3	13.9	13.4	11.9	11.3	11.4	11.6	10.8	11.6	12.1	12.7	16.7	19.4	17.4	17.6	15.7	16.6	18.7	13.3	19.4	
26	13.8	12.8	15.9	12.8	14.2	18.2	16.6	15.4	19.7	20.0	21.1	20.5	20.5	24.2	20.0	18.0	18.1	15.9	10.3	11.3	12.6	14.1	17.1	19.9	16.8	24.2	
27	18.6	16.9	12.6	5.6	3.6	2.8	.1	1.7	4.3	2.3	2.3	4.7	4.2	3.7	1.4	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	3.8	5.7	5.9	5.1	5.5	18.6
28	8.1	5.7	4.0	2.8	4.2	6.3	6.2	5.0	4.5	1.5	1.7	2.7	2.7	1.6	2.1	5.1	5.1	6.1	2.3	3.9	5.1	5.2	4.9	3.0	4.2	8.1	
29	3.2	5.0	6.0	4.5	5.8	4.2	5.5	4.0	1.5	1.8	1.3	1.8	2.2	2.3	1.3	3.6	5.3	7.6	7.3	7.4	6.8	8.3	7.4	7.7	4.7	8.3	
30	8.0	7.9	6.7	6.0	7.7	6.4	4.7	1.0	2.9	4.4	2.8	2.2	2.4	2.1	2.2	2.3	3.2	1.4	2.6	3.3	5.0	5.7	5.2	1.1	4.1	8.0	
AV	9.4	8.5	8.6	8.6	8.8	8.6	9.0	8.3	7.7	8.5	9.2	9.2	8.9	8.7	8.1	8.6	9.3	9.3	8.9	9.0	8.7	8.9	9.0	9.2	8.7	( )	
SD	6.4	5.6	5.8	6.5	6.4	5.8	6.2	6.5	5.7	5.3	6.3	6.5	5.9	6.9	7.0	6.6	6.9	6.3	6.4	6.0	5.7	5.7	5.8	6.2	5.3	( )	

WIND SPEED (00101)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

RATTELLE WIND STUDY.#505
TEHACHAPI MTNS, CA.
SITE 3

DEC. 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK	
1	6.3	5.1	4.8	4.7	5.2	5.2	4.8	3.2	1.7	2.7	3.2	3.6	3.4	1.9	3.3	2.0	1.8	1.8	1.3	1.5	.2	.9	1	1	1	3.1	6.3
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
31	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AV	6.3	5.1	4.8	4.7	5.2	5.2	4.8	3.2	1.7	2.7	3.2	3.6	3.4	1.9	3.3	2.0	1.8	1.8	1.3	1.5	.2	.9	1	1	1	3.1	6.3
SD	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

WIND SPEED ICC8011

MILES/HOUR

LEVEL HEIGHT : 10 METERS

BATTLEF WIND STUDY, #505

TEWACHAPI MINS. CA.

STF 4

MAY, 1979

AEROVIRONMENT INC.

*****
*
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
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*
* SUBJECT TO *
* REVISION *
*
*****

CLOCK HOUR (LOCAL STANDARD TIME)

CAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
2	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	5.5	4.0	5.0	4.0	4.0	3.0	2.5	2.0	3.0	3.5	3.5	3.0	4.0	5.0	3.5	4.0	5.0	5.5	3.9	5.5
3	3.0	2.5	3.5	5.5	5.0	4.0	3.0	3.5	5.0	5.5	6.0	5.5	6.5	5.5	1.5	2.5	4.5	4.5	3.0	2.5	1.0	1.5	1.5	2.0	3.7	6.5
4	2.5	3.0	3.0	3.5	3.0	3.0	1.5	2.0	2.5	1.5	1.5	3.5	3.0	4.0	5.0	5.0	1.5	1.5	3.0	3.0	3.5	4.0	5.0	2.5	5.0	
5	7.0	6.5	6.5	9.0	11.5	11.5	11.0	12.5	14.0	12.5	13.0	15.0	13.5	12.0	12.5	13.5	14.0	16.5	16.0	13.5	14.0	14.5	14.0	12.5	12.4	16.5
6	11.5	10.0	10.0	12.0	11.5	12.0	12.5	12.5	12.0	10.5	11.0	12.0	15.5	14.0	13.5	13.0	13.0	13.0	12.0	9.5	8.5	8.0	12.0	14.0	11.8	15.5
7	12.0	11.5	10.5	12.0	13.5	13.0	11.5	11.5	10.5	10.0	8.5	8.5	10.0	12.0	15.5	15.5	14.0	15.5	10.0	12.0	12.0	9.5	11.0	12.0	11.8	15.5
8	12.5	13.0	13.0	13.0	13.0	13.5	14.0	14.5	19.0	20.0	21.0	20.5	17.5	15.0	14.5	14.5	13.0	12.5	11.0	8.0	7.5	11.0	10.5	8.0	13.9	21.0
9	7.5	7.5	9.0	9.5	10.5	10.0	12.0	12.0	12.0	13.0	14.0	13.5	14.0	12.0	12.0	10.0	5.5	6.0	6.0	7.5	6.5	6.0	5.0	5.0	9.4	14.0
10	3.0	1.5	1.0	3.0	4.0	5.0	5.5	6.0	6.0	7.0	6.5	8.0	8.5	7.5	6.5	6.5	6.5	5.5	5.0	4.0	4.0	4.5	5.0	5.0	5.2	8.5
11	4.5	3.0	2.5	2.5	2.5	1.5	2.0	4.0	5.0	4.5	5.0	5.0	5.5	5.5	5.0	5.5	5.5	6.0	4.5	3.0	4.0	4.0	4.5	4.5	4.1	6.0
12	4.5	3.5	2.5	1.0	1.0	1.5	5.0	9.0	9.0	6.0	4.5	4.5	3.0	4.5	4.0	5.5	7.0	6.5	7.5	7.5	8.0	10.0	8.5	7.0	5.5	10.0
13	4.5	2.5	3.0	6.5	4.0	2.0	1.5	2.0	3.5	3.5	6.0	7.5	10.0	9.0	6.0	2.5	4.0	6.5	5.5	5.0	5.5	5.5	5.5	3.0	4.8	10.0
14	3.0	3.0	3.0	1.5	2.0	1.0	2.0	6.0	9.5	12.0	13.5	14.5	14.0	15.0	15.0	16.0	16.0	15.5	11.5	11.5	14.0	5.5	3.0	5.0	8.6	16.0
15	5.5	5.5	5.5	3.0	2.5	1.5	2.0	2.5	3.5	3.0	5.5	8.0	14.0	17.0	18.0	14.5	8.5	6.5	6.0	5.0	4.0	4.0	4.0	5.4	18.0	
16	5.5	5.0	5.0	5.5	6.5	7.0	5.5	3.5	3.0	2.0	2.0	4.0	4.0	7.0	7.0	6.0	7.0	8.0	7.0	6.0	6.0	8.0	7.0	5.6	8.0	
17	8.0	6.0	6.0	6.0	8.0	8.0	6.0	5.0	5.0	4.0	3.0	2.0	2.0	1.0	1.0	2.0	2.0	3.0	6.0	6.0	5.0	4.0	5.0	4.0	4.5	8.0
18	4.0	5.0	5.0	5.0	6.0	5.0	5.0	6.0	6.0	6.0	6.0	5.0	2.0	3.0	2.0	2.0	2.0	2.0	3.0	2.0	3.0	5.0	6.0	6.0	4.2	6.0
19	4.0	4.0	4.0	4.0	4.0	1.0	4.0	5.0	6.0	5.0	3.0	2.0	3.0	2.0	1.0	2.0	2.0	2.0	2.0	1.0	3.0	3.0	2.0	8.0	2.9	8.0
20	3.0	5.0	5.0	8.0	9.0	10.0	9.0	10.0	8.0	7.0	6.0	9.0	9.0	8.0	6.0	6.0	5.0	2.0	3.0	3.0	2.0	1.0	1.0	3.0	5.7	10.0
21	4.0	8.0	7.0	6.0	6.0	7.0	7.0	7.0	8.0	9.0	7.0	9.0	4.0	4.0	4.0	4.0	7.0	6.0	5.0	8.0	6.0	4.0	5.0	4.0	6.0	9.0
22	3.0	1.0	1.0	2.0	3.0	4.0	3.0	4.0	5.0	6.0	5.0	6.0	6.0	6.0	6.0	6.0	3.0	7.0	6.0	6.0	6.0	5.0	4.0	4.0	4.5	7.0
23	5.0	5.0	3.0	4.0	4.0	3.0	3.0	3.0	2.0	2.0	3.0	6.0	6.0	4.0	4.0	5.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0	5.0	4.0	6.0
24	7.0	7.0	7.0	4.0	7.0	6.0	5.0	8.0	6.0	5.0	8.0	6.0	6.0	6.0	8.0	6.0	6.0	5.0	4.0	4.0	5.0	6.0	7.0	9.0	6.2	9.0
25	12.0	10.0	8.0	4.0	4.0	9.0	10.0	7.0	5.0	5.0	2.0	2.0	5.0	7.0	9.0	8.0	10.0	9.0	8.0	9.0	9.0	7.0	6.0	7.0	7.2	12.0
26	7.0	5.0	5.0	7.0	6.0	5.0	4.0	5.0	3.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	4.0	1.0	7.0	8.0	6.0	5.0	7.0	3.9	8.0	
27	6.0	5.0	3.0	3.0	3.0	5.0	2.0	3.0	2.0	5.0	6.0	5.0	4.0	5.0	2.0	1.0	2.0	1.0	2.0	5.0	5.0	3.0	5.0	8.0	3.7	8.0
28	10.0	8.0	8.0	9.0	10.0	10.0	9.0	11.0	12.0	12.0	10.0	9.0	10.0	11.0	8.0	2.0	2.0	4.0	6.0	6.0	4.0	5.0	7.0	7.0	7.9	12.0
29	8.0	7.0	5.0	4.0	5.0	5.0	5.0	4.0	5.0	5.0	5.0	6.0	6.0	5.0	5.0	5.0	4.0	3.0	2.0	1.0	3.0	3.0	5.0	5.0	4.5	8.0
30	6.0	5.0	6.0	5.0	6.0	6.0	5.0	3.0	3.0	3.0	4.0	5.0	3.0	3.0	4.0	4.0	4.0	2.0	3.0	1.0	1.0	5.0	9.0	12.0	4.5	12.0
31	13.0	16.0	16.0	14.0	12.0	7.0	6.0	3.0	2.0	4.0	7.0	6.0	4.0	3.0	5.0	4.0	4.0	5.0	4.0	3.0	4.0	5.0	4.0	4.0	6.5	16.0
AV	6.3	5.9	5.6	5.9	6.3	6.1	5.9	6.3	6.4	6.4	6.5	6.7	6.8	6.7	6.7	6.5	6.3	6.4	5.6	5.7	5.7	5.6	5.9	6.3	6.2	[ ]
SD	3.4	3.6	3.5	3.5	3.6	3.7	3.6	4.1	4.2	4.3	4.3	4.5	4.4	4.1	4.5	4.8	4.8	4.6	3.7	3.2	3.3	2.8	3.0	3.1	2.9	[ ]

B-27

WIND SPEED ICC1011
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTLE WIND STUDY, #505
TEHACHAPI MTNS, CA.
SITE 4

JUN. 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

B-28

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	4.0	5.0	6.0	6.0	5.0	4.0	2.0	2.0	2.0	4.0	3.0	3.0	4.0	5.0	8.0	8.0	9.0	8.0	9.0	9.0	9.0	9.0	9.0	12.0	6.0	12.0
2	11.0	13.0	9.0	8.0	8.0	8.0	8.0	8.0	7.0	8.0	5.0	5.0	7.0	6.0	7.0	8.0	9.0	10.0	9.0	11.0	12.0	12.0	10.0	9.0	8.7	13.0
3	11.0	10.0	8.0	9.0	8.0	7.0	7.0	4.0	2.0	4.0	4.0	3.0	5.0	6.0	7.0	8.0	8.0	9.0	8.0	9.0	8.0	9.0	10.0	9.0	7.2	11.0
4	9.0	9.0	9.0	9.0	10.0	8.0	8.0	8.0	8.0	8.0	9.0	8.0	9.0	8.0	9.0	10.0	11.0	11.0	12.0	12.0	15.0	17.0	16.0	13.0	10.3	17.0
5	12.0	14.0	12.0	8.0	8.0	6.0	7.0	11.0	10.0	6.0	8.0	6.0	7.0	8.0	12.0	11.0	8.0	8.0	6.0	4.0	4.0	4.0	2.0	1.0	7.6	14.0
6	2.0	3.0	4.0	4.0	5.0	6.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0	7.0	6.0	6.0	5.0	4.0	4.0	5.0	4.0	4.0	4.0	3.0	4.8	7.0
7	3.0	3.0	2.0	3.0	5.0	6.0	4.0	4.0	4.0	5.0	4.0	4.0	5.0	5.0	4.0	6.0	7.0	12.0	12.0	10.0	15.0	16.0	13.0	10.0	6.8	16.0
8	8.0	7.0	4.0	2.0	5.0	9.0	12.0	15.0	16.0	14.0	16.0	13.0	13.0	8.0	8.0	6.0	2.0	5.0	6.0	4.0	1.0	4.0	4.0	3.0	7.7	16.0
9	1.0	1.0	.0	1.0	1.0	1.0	2.0	5.0	12.0	14.0	14.0	12.0	13.0	11.0	5.0	4.0	4.0	6.0	6.0	7.0	5.0	5.0	5.0	3.0	5.8	14.0
10	3.0	4.0	3.0	3.0	2.0	.0	.0	6.0	11.0	13.0	13.0	11.0	12.0	10.0	7.0	2.0	1.0	2.0	2.0	2.0	3.0	2.0	1.0	.0	4.7	13.0
11	.0	.0	.0	2.0	.0	.0	.0	.0	2.0	6.0	9.0	5.0	8.0	9.0	4.0	1.0	1.0	11.0	10.0	6.0	2.0	4.0	4.0	1.0	3.5	11.0
12	.0	.0	2.0	2.0	1.0	2.0	4.0	7.0	6.0	6.0	5.0	4.0	5.0	4.0	4.0	3.0	2.0	1.0	1.0	2.0	3.0	5.0	3.0	4.0	3.2	7.0
13	2.0	3.0	.0	1.0	1.0	.0	.0	1.0	2.0	1.0	4.0	5.0	5.0	5.0	1.0	4.0	2.0	2.0	3.0	3.0	8.0	10.0	11.0	10.0	3.5	11.0
14	9.0	10.0	10.0	8.0	9.0	8.0	3.0	3.0	5.0	3.0	4.0	5.0	7.0	6.0	6.0	7.0	7.0	8.0	8.0	7.0	7.0	9.0	10.0	11.0	7.1	11.0
15	10.0	10.0	7.0	8.0	8.0	6.0	3.0	3.0	2.0	4.0	5.0	6.0	7.0	8.0	10.0	8.0	6.0	5.0	6.0	7.0	7.0	9.0	10.0	11.0	6.9	11.0
16	12.0	10.0	9.0	8.0	8.0	10.0	5.0	4.0	5.0	5.0	6.0	7.0	9.0	10.0	11.0	10.0	10.0	11.0	11.0	13.0	14.0	17.0	16.0	14.0	9.8	17.0
17	12.0	14.0	13.0	12.0	9.0	10.0	9.0	8.0	6.0	8.0	8.0	9.0	11.0	11.0	12.0	12.0	12.0	11.0	10.0	9.0	8.0	7.0	8.0	8.0	9.9	14.0
18	9.0	8.0	8.0	8.0	7.0	5.0	6.0	7.0	6.0	8.0	6.0	7.0	9.0	7.0	6.0	8.0	9.0	8.0	6.0	5.0	5.0	5.0	5.0	7.0	6.7	9.0
19	6.0	5.0	4.0	3.0	2.0	1.0	1.0	2.0	2.0	2.0	3.0	4.0	5.0	4.0	4.0	5.0	4.0	4.0	12.0	9.0	3.0	3.0	2.0	5.0	4.0	12.0
20	4.0	4.0	3.0	1.0	1.0	1.0	.0	1.0	1.0	3.0	3.0	6.0	6.0	6.0	5.0	5.0	3.0	.0	2.0	3.0	6.0	8.0	8.0	8.0	3.6	8.0
21	8.0	11.0	8.0	9.0	11.0	11.0	7.0	7.0	4.0	5.0	6.0	7.0	7.0	9.0	8.0	8.0	8.0	9.0	8.0	8.0	11.0	12.0	13.0	13.0	8.7	13.0
22	14.0	14.0	14.0	14.0	12.0	11.0	9.0	6.0	7.0	7.0	6.0	6.0	6.0	9.0	9.0	9.0	10.0	9.0	7.0	7.0	8.0	9.0	7.0	9.0	9.1	14.0
23	7.0	7.0	7.0	7.0	7.0	7.0	5.0	3.0	3.0	4.0	5.0	5.0	5.0	6.0	7.0	7.0	6.0	5.0	4.0	4.0	4.0	6.0	6.0	5.0	5.5	7.0
24	4.0	4.0	5.0	5.0	7.0	5.0	3.0	2.0	1.0	.0	1.0	3.0	4.0	4.0	5.0	4.0	3.0	4.0	3.0	5.0	6.0	7.0	7.0	7.0	4.1	7.0
25	9.0	7.0	9.0	9.0	9.0	7.0	6.0	6.0	6.0	4.0	5.0	5.0	7.0	8.0	7.0	7.0	7.0	5.0	6.0	5.0	6.0	6.0	7.0	7.0	6.6	9.0
26	9.0	9.0	8.0	7.0	8.0	9.0	7.0	7.0	6.0	5.0	4.0	6.0	5.0	7.0	8.0	6.0	7.0	9.0	8.0	7.0	7.0	7.0	6.0	6.0	7.0	9.0
27	6.0	6.0	6.0	7.0	5.0	5.0	3.0	3.0	3.0	4.0	5.0	6.0	7.0	7.0	7.0	8.0	8.0	7.0	7.0	10.0	10.0	10.0	10.0	8.0	6.6	10.0
28	7.0	8.0	7.0	6.0	6.0	4.0	4.0	4.0	5.0	4.0	5.0	5.0	7.0	8.0	7.0	8.0	7.0	8.0	6.0	7.0	7.0	7.0	7.0	8.0	6.3	8.0
29	8.0	7.0	8.0	8.0	5.0	7.0	9.0	7.0	9.0	8.0	9.0	7.0	6.0	4.0	5.0	7.0	8.0	5.0	5.0	7.0	7.0	9.0	10.0	9.0	7.2	10.0
30	9.0	7.0	5.0	6.0	5.0	8.0	6.0	4.0	3.0	3.0	4.0	4.0	4.0	6.0	6.0	5.0	6.0	7.0	6.0	6.0	7.0	7.0	6.0	6.0	5.7	9.0
AV	7.0	7.1	6.3	6.1	5.9	5.7	4.9	5.1	5.4	5.6	6.2	6.1	7.0	7.1	6.9	6.7	6.4	6.9	6.7	6.7	7.0	7.9	7.6	7.3	6.5	[ ]
SD	3.8	3.9	3.6	3.3	3.2	3.3	3.1	3.1	3.5	3.3	3.3	2.4	2.5	2.0	2.0	2.5	2.9	3.0	3.1	2.9	3.6	3.9	3.8	3.7	2.0	[ ]

ADOUT 111 MAY 791

WIND SPEED (00:01)
MILES/HOHR
LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHAPI MTS, CA.
SITE 4

JUL. 1979

AEROENVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SURJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

B-29

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	7.0	6.0	7.0	7.0	6.0	5.0	4.0	3.0	2.0	4.0	4.0	4.0	4.0	6.0	5.0	4.0	4.0	3.0	6.0	8.0	8.0	8.0	7.0	3.0	5.2	8.0
2	.0	.0	1.0	2.0	1.0	.0	1.0	4.0	7.0	7.0	8.0	6.0	9.0	6.0	5.0	10.0	10.0	6.0	3.0	3.0	5.0	9.0	11.0	11.0	5.2	11.0
3	9.0	6.0	5.0	2.0	1.0	1.0	.0	2.0	4.0	5.0	4.0	4.0	4.0	6.0	6.0	6.0	6.0	6.0	5.0	4.0	5.0	8.0	6.0	8.0	4.5	9.0
4	7.0	7.0	8.0	8.0	7.0	6.0	9.0	5.0	4.0	4.0	4.0	4.0	5.0	5.0	6.0	6.0	5.0	5.0	5.0	4.0	4.0	5.0	6.0	8.0	5.5	9.0
5	6.0	7.0	7.0	9.0	4.0	4.0	4.0	6.0	5.0	4.0	3.0	4.0	4.0	6.0	6.0	7.0	6.0	5.0	6.0	7.0	7.0	6.0	7.0	8.0	5.8	9.0
6	8.0	7.0	7.0	7.0	5.0	5.0	9.0	10.0	8.0	4.0	3.0	3.0	4.0	6.0	6.0	7.0	7.0	6.0	5.0	6.0	6.0	7.0	6.0	6.0	6.2	10.0
7	6.0	6.0	7.0	7.0	6.0	6.0	6.0	5.0	4.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0	4.0	4.0	5.0	5.0	7.0	7.0	4.9	7.0
8	6.0	5.0	6.0	6.0	6.0	5.0	5.0	5.0	4.0	3.0	2.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	7.0	7.0	3.8	6.0
9	2.0	2.0	2.0	2.0	2.0	1.0	2.0	1.0	1.0	1.0	2.0	1.0	3.0	4.0	4.0	4.0	5.0	6.0	4.0	4.0	4.0	4.0	6.0	8.0	3.1	8.0
10	11.0	10.0	9.0	8.0	5.0	5.0	4.0	5.0	5.0	5.0	4.0	7.0	8.0	8.0	7.0	7.0	10.0	8.0	8.0	5.0	6.0	7.0	8.0	8.0	7.0	11.0
11	8.0	8.0	10.0	8.0	6.0	7.0	8.0	10.0	10.0	11.0	9.0	9.0	8.0	9.0	8.0	9.0	8.0	9.0	8.0	8.0	7.0	6.0	7.0	6.0	8.9	13.0
12	12.0	13.0	13.0	11.0	11.0	10.0	10.0	9.0	9.0	8.0	8.0	8.0	7.0	9.0	8.0	9.0	8.0	9.0	8.0	8.0	7.0	6.0	7.0	6.0	10.3	16.0
13	7.0	6.0	5.0	5.0	6.0	7.0	6.0	4.0	2.0	3.0	3.0	2.0	2.0	3.0	4.0	4.0	5.0	4.0	3.0	3.0	5.0	6.0	4.0	4.0	4.5	7.0
14	4.0	4.0	4.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	4.0	4.0	4.0	6.0	6.0	7.0	6.0	5.0	5.0	4.0	5.0	6.0	5.0	5.0	4.2	7.0
15	4.0	3.0	2.0	1.0	2.0	1.0	1.0	1.0	1.0	2.0	3.0	4.0	3.0	3.0	9.0	13.0	14.0	8.0	5.0	3.0	5.0	2.0	1.0	4.0	4.0	14.0
16	3.0	3.0	3.0	2.0	.0	1.0	.0	2.0	2.0	4.0	5.0	8.0	10.0	11.0	7.0	5.0	5.0	5.0	6.0	5.0	5.0	6.0	6.0	5.0	4.5	11.0
17	6.0	5.0	4.0	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	5.0	6.0
18	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	1.1	1.1
19	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	(L1)	1.1	1.1
20	16.0	19.0	20.0	20.0	21.0	22.0	19.0	21.0	21.0	18.0	17.0	17.0	15.0	13.0	10.0	11.0	12.0	13.0	11.0	11.0	10.0	7.0	10.0	11.0	10.8	16.0
21	5.0	1.0	2.0	3.0	4.0	3.0	2.0	2.0	4.0	2.0	1.0	2.0	4.0	6.0	7.0	9.0	9.0	10.0	9.0	6.0	3.0	2.0	2.0	2.0	4.3	10.0
22	3.0	3.0	1.0	4.0	2.0	2.0	3.0	2.0	2.0	4.0	4.0	6.0	6.0	6.0	8.0	7.0	7.0	5.0	6.0	8.0	7.0	7.0	7.0	6.0	4.8	8.0
23	6.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	3.0	3.0	3.0	5.0	5.0	6.0	7.0	6.0	5.0	5.0	8.0	6.0	8.0	9.0	8.0	6.0	5.5	9.0
24	6.0	7.0	7.0	7.0	6.0	7.0	4.0	2.0	4.0	3.0	3.0	4.0	5.0	6.0	5.0	4.0	4.0	3.0	4.0	9.0	8.0	6.0	6.0	6.0	5.3	9.0
25	6.0	6.0	5.0	4.0	3.0	2.0	2.0	1.0	1.0	1.0	4.0	4.0	5.0	4.0	4.0	4.0	3.0	1.0	1.0	.0	.0	1.0	1.0	1.0	2.7	6.0
26	1.0	2.0	3.0	2.0	.0	1.0	1.0	1.0	1.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	3.0	3.0	5.0	4.0	8.0	7.0	4.0	6.0	3.3	8.0
27	4.0	6.0	8.0	6.0	5.0	5.0	5.0	5.0	5.0	4.0	3.0	5.0	4.0	6.0	6.0	7.0	7.0	5.0	5.0	5.0	7.0	7.0	7.0	6.0	5.5	8.0
28	7.0	7.0	4.0	6.0	5.0	5.0	3.0	3.0	4.0	5.0	6.0	7.0	7.0	8.0	7.0	7.0	6.0	5.0	6.0	7.0	8.0	8.0	9.0	6.0	6.0	9.0
29	9.0	6.0	5.0	5.0	4.0	4.0	4.0	3.0	2.0	4.0	4.0	5.0	5.0	6.0	6.0	6.0	5.0	7.0	5.0	3.0	4.0	4.0	6.0	5.0	4.9	9.0
30	4.0	4.0	4.0	2.0	1.0	.0	.0	1.0	3.0	2.0	3.0	3.0	4.0	5.0	3.0	2.0	1.0	1.0	.0	1.0	1.0	2.0	3.0	2.1	5.0	
31	2.0	1.0	.0	1.0	1.0	.0	.0	.0	.0	1.0	2.0	2.0	3.0	4.0	4.0	6.0	4.0	4.0	4.0	5.0	7.0	7.0	7.0	8.0	3.0	8.0
AV	6.0	5.7	5.7	5.5	4.6	4.3	4.4	4.1	4.2	4.3	4.3	4.9	5.3	6.0	6.0	6.8	6.6	5.8	5.7	5.3	6.0	6.2	6.3	6.5	5.5	1.1
SD	3.3	3.7	4.0	3.8	4.0	4.3	3.9	4.2	4.1	3.4	3.1	3.0	2.7	2.3	1.8	2.6	3.1	2.9	2.6	2.8	2.5	2.9	2.8	3.5	2.6	1.1

WIND SPEED [CC1011]
MILES/HOUR
LEVEL HEIGHT : 10 METERS

RATTELL WIND STUDY, #505
TEHACHAPI MTS. CA.
SITE 4

AUG. 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR [LOCAL STANDARD TIME]

B-30

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK	
1	7.0	6.0	6.0	7.0	6.0	6.0	6.0	6.0	4.0	5.0	4.0	5.0	6.0	7.0	9.0	8.0	7.0	5.0	3.0	5.0	7.0	10.0	9.0	7.0	6.3	10.0	
2	4.0	4.0	5.0	7.0	5.0	6.0	7.0	6.0	3.0	4.0	4.0	4.0	5.0	6.0	5.0	5.0	5.0	4.0	5.0	6.0	7.0	8.0	7.0	6.0	5.3	8.0	
3	6.0	5.0	7.0	6.0	6.0	4.0	4.0	3.0	2.0	2.0	3.0	4.0	5.0	5.0	4.0	4.0	4.0	3.0	4.0	6.0	6.0	5.0	7.0	6.0	4.6	7.0	
4	7.0	7.0	3.0	1.0	2.0	3.0	3.0	2.0	2.0	3.0	4.0	5.0	5.0	5.0	6.0	8.0	6.0	5.0	5.0	3.0	3.0	5.0	6.0	5.0	4.3	8.0	
5	2.0	3.0	2.0	3.0	2.0	1.0	3.0	1.0	2.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	7.0	3.5	7.0	
6	5.0	3.0	1.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	2.0	4.0	4.0	4.0	3.0	3.0	2.0	3.0	3.0	3.0	1.7	5.0	
7	1.0	.0	.0	1.0	1.0	.0	.0	.0	.0	1.0	2.0	3.0	4.0	6.0	6.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0	.0	.0	2.2	6.0	
8	.0	1.0	.0	.0	1.0	.0	.0	.0	.0	1.0	4.0	4.0	5.0	5.0	4.0	4.0	6.0	4.0	3.0	4.0	5.0	6.0	5.0	4.0	2.8	6.0	
9	4.0	4.0	3.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	4.0	4.0	4.0	3.0	.0	2.0	2.0	.0	2.6	5.0	
10	.0	1.0	1.0	1.0	.0	.0	.0	.0	7.0	3.0	2.0	2.0	8.0	4.0	4.0	3.0	4.0	1.0	1.0	3.0	1.0	(LI)	(LI)	(LI)	2.2	8.0	
11	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	( )	( )	
12	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	( )	( )	
13	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	( )	( )	
14	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )	
15	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	5.0	5.0	4.0	3.0	3.0	3.0	4.0	4.0	5.0	4.0	4.0	5.0
16	4.0	4.0	4.0	2.0	1.0	2.0	1.0	1.0	1.0	3.0	6.0	12.0	14.0	15.0	9.0	4.0	4.0	2.0	3.0	2.0	3.0	3.0	3.0	4.0	4.0	4.5	15.0
17	2.0	3.0	2.0	1.0	1.0	.0	1.0	3.0	5.0	4.0	4.0	5.0	4.0	4.0	3.0	5.0	4.0	4.0	3.0	1.0	1.0	1.0	1.0	4.0	2.8	5.0	
18	5.0	4.0	5.0	3.0	2.0	1.0	.0	.0	1.0	5.0	5.0	5.0	6.0	6.0	7.0	6.0	4.0	3.0	1.0	1.0	7.0	11.0	9.0	5.0	4.3	11.0	
19	3.0	3.0	4.0	5.0	4.0	3.0	2.0	2.0	2.0	4.0	5.0	6.0	6.0	5.0	6.0	5.0	5.0	3.0	3.0	4.0	6.0	5.0	7.0	6.0	4.3	7.0	
20	6.0	5.0	5.0	5.0	3.0	2.0	2.0	3.0	2.0	2.0	3.0	4.0	5.0	4.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	6.0	3.0	4.0	4.1	6.0	
21	4.0	5.0	5.0	4.0	2.0	1.0	1.0	1.0	2.0	2.0	3.0	3.0	5.0	5.0	5.0	4.0	4.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0	3.3	5.0	
22	4.0	5.0	4.0	4.0	2.0	4.0	3.0	1.0	1.0	2.0	2.0	3.0	3.0	4.0	3.0	4.0	3.0	3.0	2.0	4.0	4.0	3.0	4.0	5.0	3.2	5.0	
23	5.0	6.0	8.0	5.0	5.0	4.0	4.0	2.0	3.0	4.0	4.0	4.0	5.0	5.0	6.0	6.0	6.0	5.0	4.0	6.0	6.0	5.0	7.0	8.0	5.1	8.0	
24	7.0	6.0	6.0	9.0	8.0	8.0	5.0	6.0	7.0	6.0	6.0	6.0	9.0	7.0	4.0	3.0	6.0	5.0	5.0	6.0	9.0	9.0	8.0	10.0	6.7	10.0	
25	9.0	9.0	7.0	7.0	6.0	7.0	6.0	6.0	4.0	5.0	6.0	7.0	9.0	10.0	9.0	10.0	10.0	7.0	10.0	10.0	11.0	11.0	11.0	10.0	8.2	11.0	
26	10.0	11.0	11.0	10.0	8.0	11.0	9.0	8.0	7.0	7.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	9.0	10.0	8.0	8.6	11.0	
27	7.0	8.0	8.0	9.0	8.0	8.0	7.0	6.0	5.0	7.0	6.0	5.0	5.0	7.0	7.0	7.0	7.0	6.0	6.0	10.0	8.0	7.0	8.0	6.0	7.0	10.0	
28	7.0	7.0	7.0	6.0	7.0	8.0	5.0	6.0	6.0	6.0	9.0	10.0	11.0	9.0	9.0	7.0	7.0	7.0	7.0	7.0	6.0	6.0	5.0	5.0	7.1	11.0	
29	5.0	8.0	4.0	3.0	5.0	3.0	3.0	2.0	1.0	1.0	4.0	4.0	3.0	4.0	5.0	4.0	6.0	6.0	5.0	5.0	6.0	9.0	7.0	6.0	4.5	9.0	
30	6.0	7.0	6.0	4.0	9.0	8.0	7.0	8.0	6.0	6.0	5.0	5.0	7.0	9.0	9.0	8.0	7.0	7.0	6.0	7.0	6.0	5.0	5.0	6.0	6.5	9.0	
31	6.0	7.0	8.0	6.0	5.0	3.0	3.0	4.0	3.0	5.0	4.0	5.0	4.0	5.0	5.0	4.0	4.0	4.0	6.0	5.0	6.0	6.0	5.0	3.0	4.8	8.0	
AV	4.8	5.1	4.7	4.3	3.9	3.6	3.2	2.9	3.0	3.5	4.1	4.8	5.7	5.9	5.7	5.3	5.3	4.4	4.3	4.8	5.1	5.8	5.6	5.2	4.6	( )	
SD	2.5	2.5	2.7	2.8	2.7	3.1	2.6	2.4	2.2	1.9	1.9	2.4	2.8	2.7	2.0	1.8	1.6	1.6	2.0	2.3	2.5	2.7	2.7	2.4	1.8	( )	

WIND SPEED (CC101)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTLEFIE WIND STUDY, #505
TEHACHAPI MTNS, CA.
SITE 4

SEP. 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	3.0	5.0	5.0	4.0	4.0	5.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	6.0	6.0	6.0	5.0	6.0	6.0	6.0	8.0	6.0	4.9	8.0
2	6.0	8.0	8.0	4.0	3.0	5.0	7.0	5.0	4.0	4.0	4.0	5.0	7.0	7.0	6.0	7.0	7.0	6.0	7.0	8.0	6.0	7.0	6.0	5.0	5.9	8.0
3	6.0	6.0	7.0	6.0	6.0	5.0	5.0	5.0	6.0	4.0	5.0	5.0	5.0	6.0	6.0	7.0	6.0	8.0	6.0	7.0	8.0	8.0	7.0	7.0	6.1	8.0
4	8.0	8.0	9.0	8.0	6.0	6.0	8.0	8.0	8.0	5.0	6.0	4.0	6.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	7.0	7.0	8.0	7.0	6.5	9.0
5	6.0	6.0	6.0	6.0	5.0	4.0	3.0	3.0	5.0	4.0	5.0	4.0	5.0	5.0	5.0	5.0	6.0	4.0	4.0	5.0	4.0	4.0	6.0	7.0	4.9	7.0
6	7.0	6.0	4.0	4.0	4.0	4.0	6.0	2.0	3.0	3.0	3.0	3.0	4.0	5.0	4.0	5.0	5.0	4.0	4.0	4.0	3.0	1.0	1.0	2.0	3.7	7.0
7	1.0	2.0	3.0	4.0	5.0	3.0	5.0	7.0	8.0	11.0	12.0	15.0	15.0	14.0	13.0	4.0	3.0	2.0	1.0	2.0	5.0	6.0	5.0	6.0	6.3	15.0
8	4.0	6.0	3.0	4.0	4.0	4.0	4.0	2.0	3.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	6.0	5.0	5.0	3.0	4.0	6.0
9	5.0	4.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0	4.0	3.0	2.0	3.0	4.0	4.0	6.0	5.0	5.0	4.0	5.0	3.4	6.0
10	5.0	4.0	2.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	1.0	1.0	1.0	2.0	2.0	2.0	1.0	2.0	4.0	4.0	4.0	6.0	5.0	5.0	2.8	6.0
11	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	5.0	6.0	6.0	5.0	4.5	6.0
12	5.0	5.0	5.0	6.0	4.0	4.0	5.0	6.0	4.0	2.0	4.0	4.0	4.0	5.0	6.0	6.0	5.0	4.0	6.0	5.0	5.0	5.0	5.0	7.0	4.9	7.0
13	5.0	5.0	5.0	5.0	7.0	6.0	6.0	4.0	4.0	4.0	5.0	6.0	7.0	7.0	8.0	7.0	2.0	7.0	8.0	9.0	8.0	7.0	8.0	7.0	6.1	9.0
14	7.0	7.0	7.0	9.0	7.0	8.0	6.0	5.0	4.0	4.0	4.0	6.0	5.0	6.0	6.0	5.0	5.0	4.0	4.0	4.0	5.0	5.0	6.0	4.0	5.5	9.0
15	4.0	3.0	2.0	2.0	1.0	5.0	8.0	9.0	11.0	11.0	10.0	10.0	9.0	5.0	4.0	3.0	3.0	1.0	2.0	3.0	3.0	2.0	1.0	2.0	4.7	11.0
16	2.0	1.0	2.0	2.0	2.0	2.0	1.0	2.0	2.0	4.0	3.0	5.0	6.0	6.0	7.0	7.0	6.0	4.0	5.0	6.0	6.0	7.0	6.0	4.0	3.7	7.0
17	7.0	9.0	8.0	7.0	8.0	8.0	6.0	5.0	4.0	5.0	6.0	5.0	6.0	7.0	8.0	6.0	5.0	6.0	6.0	7.0	8.0	8.0	7.0	7.0	6.6	9.0
18	7.0	7.0	6.0	8.0	8.0	7.0	7.0	4.0	3.0	4.0	4.0	5.0	7.0	8.0	7.0	6.0	8.0	12.0	10.0	10.0	11.0	9.0	9.0	7.0	7.3	12.0
19	6.0	7.0	7.0	6.0	6.0	4.0	4.0	3.0	4.0	4.0	4.0	5.0	6.0	5.0	5.0	5.0	6.0	6.0	4.0	4.0	5.0	4.0	4.0	5.0	5.0	7.0
20	4.0	3.0	3.0	2.0	2.0	1.0	2.0	3.0	4.0	4.0	2.0	4.0	4.0	3.0	2.0	1.0	2.0	2.0	3.0	2.0	1.0	2.0	2.0	2.0	2.0	4.0
21	2.0	2.0	1.0	7.0	10.0	12.0	10.0	11.0	12.0	12.0	12.0	3.0	4.0	3.0	3.0	4.0	5.0	4.0	1.0	3.0	4.0	5.0	4.0	3.0	5.5	12.0
22	2.0	2.0	3.0	3.0	1.0	1.0	2.0	3.0	7.0	4.0	4.0	6.0	5.0	8.0	9.0	9.0	3.0	6.0	7.0	4.0	3.0	3.0	3.0	1.0	4.1	9.0
23	3.0	2.0	2.0	2.0	2.0	2.0	2.0	7.0	12.0	16.0	15.0	14.0	14.0	14.0	11.0	10.0	8.0	9.0	9.0	10.0	9.0	11.0	12.0	11.0	8.3	16.0
24	10.0	11.0	10.0	13.0	15.0	15.0	17.0	18.0	16.0	17.0	18.0	18.0	19.0	17.0	15.0	17.0	20.0	17.0	17.0	16.0	12.0	8.0	3.0	1.0	14.2	20.0
25	2.0	3.0	4.0	5.0	5.0	10.0	11.0	8.0	3.0	2.0	5.0	5.0	5.0	4.0	3.0	4.0	6.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	4.8	11.0
26	4.0	1.0	1.0	1.0	2.0	2.0	1.0	2.0	5.0	3.0	2.0	3.0	4.0	2.0	4.0	2.0	2.0	2.0	4.0	5.0	7.0	10.0	9.0	9.0	3.5	10.0
27	8.0	10.0	5.0	6.0	7.0	7.0	8.0	14.0	15.0	14.0	13.0	12.0	11.0	10.0	8.0	10.0	7.0	5.0	8.0	10.0	8.0	12.0	12.0	11.0	9.6	15.0
28	8.0	8.0	6.0	4.0	6.0	10.0	13.0	13.0	9.0	10.0	8.0	9.0	9.0	10.0	9.0	10.0	8.0	8.0	8.0	9.0	9.0	8.0	9.0	8.0	8.9	13.0
29	6.0	6.0	7.0	7.0	9.0	10.0	10.0	9.0	10.0	11.0	9.0	9.0	7.0	7.0	9.0	7.0	8.0	7.0	7.0	6.0	7.0	8.0	9.0	12.0	8.2	12.0
30	8.0	8.0	8.0	8.0	8.0	7.0	5.0	5.0	7.0	8.0	11.0	12.0	12.0	11.0	10.0	12.0	9.0	10.0	10.0	9.0	8.0	9.0	9.0	7.0	8.8	12.0
AV	5.0	5.2	4.7	5.0	5.0	5.4	5.8	5.8	6.3	6.2	6.4	6.4	6.8	6.7	6.5	6.1	5.6	5.5	5.7	6.0	6.1	6.2	6.0	5.5	5.8	1
SD	2.4	2.9	2.6	2.8	3.3	3.5	3.7	3.9	4.0	4.3	4.2	4.0	3.9	3.5	3.1	3.2	3.6	3.3	3.1	3.0	2.4	2.7	2.9	3.1	2.4	1

ADDDT 111 MAY 791

B-31

WIND SPEED (00101)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHAPI MTS., CA.
SITE 4

OCT. 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

B-32

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVF	PEAK
1	2.0	1.0	6.0	10.0	11.0	12.0	11.0	13.0	12.0	14.0	14.0	15.0	20.0	22.0	20.0	16.0	16.0	17.0	16.0	16.0	15.0	17.0	18.0	20.0	13.9	22.0
2	20.0	21.0	21.0	18.0	17.0	16.0	14.0	14.0	18.0	19.0	20.0	18.0	16.0	15.0	11.0	9.0	6.0	4.0	2.0	3.0	3.0	1.0	.0	.0	11.9	21.0
3	2.0	.0	.0	3.0	4.0	5.0	7.0	(PF)	(PF)	(PF)	15.7	11.1	8.5	8.5	9.6	7.7	4.8	6.3	5.3	6.2	3.8	.4	1.8	3.3	5.4	15.7
4	2.8	2.6	.8	1.2	.0	.7	.6	.6	2.3	5.6	7.8	9.8	9.6	10.0	7.9	4.3	2.6	2.4	1.6	2.3	2.6	3.0	5.0	4.4	3.8	10.0
5	4.6	4.3	4.0	4.6	5.0	3.5	4.2	2.6	3.2	2.5	2.3	3.2	3.8	4.1	4.9	5.3	5.2	5.1	4.5	5.5	4.9	3.9	4.7	5.4	4.2	5.5
6	5.3	6.2	5.2	4.6	5.0	3.9	5.0	5.5	3.7	2.9	3.4	2.6	4.7	5.1	5.1	5.6	4.9	5.5	4.4	4.6	4.4	3.9	5.1	5.7	4.7	6.2
7	5.7	6.3	6.4	4.5	2.7	4.6	4.1	4.2	4.5	5.4	3.2	4.8	5.4	4.4	3.2	4.0	3.2	5.2	6.1	4.4	4.0	4.9	5.5	5.5	4.7	6.4
8	7.4	7.7	7.9	7.9	6.2	6.3	7.7	6.7	5.4	5.4	5.7	4.2	2.2	3.3	5.7	4.3	5.4	5.0	4.3	4.2	2.1	.5	.6	.6	4.9	7.9
9	.7	.0	.3	.5	2.0	2.0	5.2	5.7	6.9	8.4	10.3	9.9	9.6	11.8	14.3	17.0	15.3	15.0	12.9	11.5	11.0	7.4	5.8	5.4	7.8	17.0
10	5.2	5.3	5.9	7.0	7.1	6.4	4.7	5.6	5.5	6.2	7.5	5.9	8.5	11.2	12.5	14.9	15.6	12.1	10.8	9.0	8.7	8.9	10.4	8.5	8.5	15.6
11	4.7	1.5	.6	1.4	1.7	3.2	5.0	4.3	3.9	3.5	2.9	1.9	1.5	.6	1.1	1.2	2.0	2.8	2.8	4.1	4.5	4.9	4.7	5.1	2.9	5.1
12	4.5	5.4	5.6	6.8	7.5	7.2	5.6	7.3	5.4	5.1	5.5	5.0	4.3	2.1	3.5	3.1	2.8	2.7	3.9	4.1	3.5	3.4	4.0	4.5	4.7	7.5
13	4.3	3.6	4.3	3.6	3.3	3.7	4.6	3.2	3.8	3.9	4.6	3.9	3.4	1.9	3.0	2.2	1.5	3.1	4.5	5.0	5.3	4.8	3.6	2.1	3.6	5.3
14	1.2	2.5	2.5	2.2	2.2	5.3	5.0	4.8	3.3	4.9	5.4	5.4	4.9	3.2	3.3	2.8	2.4	3.2	4.3	5.0	4.4	3.9	3.5	2.9	3.7	5.4
15	2.5	2.5	3.7	4.0	3.9	4.9	5.6	3.4	3.7	4.6	4.8	6.0	6.8	6.6	4.7	4.2	5.2	3.6	4.6	3.9	4.4	6.5	6.8	7.6	8.8	7.6
16	5.8	5.8	5.2	5.1	6.7	5.2	5.3	5.2	5.6	6.1	6.3	6.6	6.5	6.3	5.5	4.6	5.2	6.0	3.9	3.4	4.9	4.9	3.8	5.1	5.4	6.7
17	6.0	5.4	5.8	5.7	6.3	6.9	6.0	5.4	5.2	7.2	7.1	6.4	6.7	7.6	6.9	6.2	5.9	7.4	6.0	6.5	7.3	7.5	6.7	7.3	6.5	7.6
18	7.1	7.7	8.5	8.6	7.3	4.7	3.8	3.4	3.6	6.2	5.8	5.9	5.8	8.5	7.4	4.7	4.5	4.3	4.7	5.9	5.3	5.4	6.6	5.6	5.9	8.6
19	6.6	11.0	11.5	9.8	6.8	5.4	2.9	5.1	12.9	9.3	5.7	8.0	7.9	7.9	6.3	6.4	4.5	3.6	2.7	1.1	3.7	5.3	12.2	9.5	6.9	12.9
20	4.6	1.3	4.2	3.1	9.2	10.2	15.7	12.1	12.3	10.8	12.8	11.6	13.2	12.1	9.1	10.5	9.6	10.9	11.6	13.2	12.2	13.2	14.7	15.6	10.6	15.7
21	14.8	14.4	14.7	14.6	10.8	4.7	5.4	7.8	6.5	4.3	3.5	2.0	1.9	2.1	4.0	5.7	7.7	7.3	7.1	6.3	7.5	8.3	7.6	5.8	7.3	14.8
22	6.5	7.9	9.4	11.8	13.3	16.5	17.6	17.5	17.3	15.9	13.3	12.5	10.2	9.5	6.3	4.8	4.1	4.2	3.1	2.0	2.2	6.5	6.2	2.0	9.2	17.6
23	2.9	3.6	4.5	4.0	2.0	2.8	8.3	9.5	12.0	13.8	14.5	15.8	14.1	12.5	10.0	8.4	4.2	5.9	4.1	4.1	10.0	14.7	13.7	15.1	8.8	15.8
24	14.9	12.5	15.3	10.0	9.4	13.0	13.0	13.9	16.4	14.9	14.5	16.5	14.6	10.2	8.2	7.0	6.0	7.8	9.0	7.1	7.9	5.9	6.8	5.3	10.8	16.5
25	5.7	5.4	5.2	6.2	6.5	8.8	9.6	8.3	7.1	4.3	3.2	8.9	8.8	4.3	2.2	2.1	4.7	6.8	8.1	9.1	6.6	5.0	5.0	7.7	6.3	9.6
26	7.6	8.6	10.7	12.7	9.5	9.9	10.6	10.4	8.8	6.5	4.6	3.7	3.5	4.3	4.2	4.9	4.1	3.4	5.5	6.1	6.5	5.3	5.1	8.7	6.9	12.7
27	9.3	6.4	4.1	4.6	2.9	2.4	2.7	2.1	3.3	1.8	2.3	2.2	3.0	3.2	2.2	7.7	5.6	4.2	6.7	5.1	7.6	5.7	6.4	6.3	4.5	9.3
28	6.5	6.3	6.2	7.4	8.4	8.3	10.0	11.3	11.7	13.0	13.0	9.5	11.2	12.5	12.8	14.9	14.1	15.1	20.1	23.6	21.4	25.5	20.3	23.7	13.8	25.5
29	21.9	20.0	15.9	15.7	13.8	9.1	8.1	10.6	10.2	9.5	10.3	9.2	7.0	7.4	10.1	7.8	8.0	9.4	13.1	12.2	9.5	10.7	11.6	7.5	11.2	21.9
30	6.3	4.6	4.8	4.6	1.2	1.2	.0	.4	5.3	1.7	1.6	1.7	4.3	5.1	4.4	8.3	6.6	8.4	9.3	14.0	15.7	15.6	12.7	11.8	6.2	15.7
31	12.8	13.2	14.9	12.3	15.2	14.9	12.4	11.5	11.4	10.7	8.7	7.4	7.8	7.1	7.9	7.8	7.7	5.6	5.5	6.7	5.8	6.1	4.6	4.0	9.3	15.2
AV	6.8	6.6	6.9	7.0	6.7	6.7	7.1	7.2	7.7	7.6	7.8	7.6	7.6	7.4	7.0	6.9	6.3	6.6	6.7	6.9	7.0	7.1	7.4	7.2	7.1	1
SD	5.0	5.1	5.0	4.4	4.3	4.2	4.2	4.3	4.5	4.5	4.7	4.5	4.4	4.5	4.1	4.0	3.9	3.8	4.2	4.7	4.3	5.2	5.1	5.2	3.0	1

WIND SPEED 1001011
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTIE WIND STUDY, #505
TEHACHAPI MTS, CA.
SITE 4

NOV. 1979

AFROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK	
1	4.8	4.1	2.8	1.9	2.1	2.2	2.2	4.5	7.3	6.6	8.0	11.7	11.4	11.0	5.3	2.7	3.1	1.1	.4	1.0	1.4	1.1	.1	.8	4.1	11.7	
2	3.3	6.8	8.9	10.8	12.8	7.3	10.2	12.3	14.4	13.9	12.9	13.5	13.3	11.9	9.5	6.7	4.8	2.6	3.2	1.9	1.6	1.5	.5	.2	7.7	14.4	
3	.1	.4	.5	1.2	.2	1.6	7.4	3.5	.4	3.8	8.5	8.8	4.3	3.4	5.7	4.9	2.1	2.4	4.2	6.2	5.6	5.0	8.3	4.2	3.9	8.8	
4	6.0	7.8	10.0	8.6	9.5	9.8	9.5	8.8	7.9	7.4	7.1	8.1	6.5	7.4	8.5	7.9	8.4	7.2	7.1	5.8	5.0	4.2	4.6	6.8	7.5	10.0	
5	6.7	6.2	3.4	3.8	3.3	3.0	2.2	.4	2.5	8.8	16.2	16.9	17.8	15.2	13.1	13.0	11.8	13.5	10.5	8.6	8.6	8.1	9.4	8.3	8.8	17.8	
6	10.6	8.4	12.0	14.9	20.7	17.1	16.5	22.1	20.9	20.4	17.9	16.8	18.2	17.8	15.5	15.1	14.5	14.2	15.6	14.6	13.6	13.8	15.2	21.6	16.2	22.1	
7	26.7	31.1	32.5	31.6	30.6	26.5	27.0	27.3	28.7	25.5	30.4	34.0	36.0	28.3	29.9	24.4	24.5	30.6	27.0	30.0	25.7	24.8	18.4	14.7	27.7	36.0	
8	11.8	10.3	3.3	3.0	4.1	5.2	4.5	4.9	4.3	4.6	5.2	4.6	6.1	6.4	5.4	5.5	5.6	3.7	5.9	6.7	6.0	5.2	4.5	5.4	5.5	11.8	
9	6.6	6.3	6.1	6.8	6.4	5.9	5.3	7.0	5.0	5.1	4.6	5.9	6.9	5.7	7.0	7.3	7.0	5.8	5.3	7.1	8.8	7.9	6.9	7.7	6.4	8.8	
10	7.5	5.0	4.1	2.7	.7	.0	.5	5.2	8.4	11.7	14.7	15.2	11.7	10.1	2.5	3.3	1.7	1.7	5.1	4.8	5.0	3.9	.8	.5	5.2	15.2	
11	.5	.1	.6	2.7	5.6	6.2	5.2	5.2	4.6	2.6	3.9	2.4	2.6	1.4	1.7	1.6	3.3	5.5	7.4	7.5	9.8	13.9	15.3	17.6	5.3	17.6	
12	13.7	12.5	13.5	13.7	15.3	15.8	14.4	14.6	17.2	18.6	19.4	18.5	17.7	16.0	15.0	15.0	12.7	10.8	9.7	9.5	9.4	10.0	11.8	13.9	14.1	19.4	
13	13.8	14.3	12.9	12.3	11.2	10.6	11.4	13.9	16.7	18.7	19.3	19.0	18.6	13.1	13.4	13.5	13.5	11.8	12.3	13.3	13.4	13.6	13.7	15.4	14.2	19.3	
14	16.0	16.0	16.4	15.5	14.8	15.3	15.6	14.4	15.2	13.6	15.4	16.6	18.0	17.5	19.9	20.4	19.4	17.5	15.5	14.9	13.9	13.5	14.6	16.3	16.1	20.4	
15	19.0	18.0	17.2	13.2	9.2	9.4	9.9	11.5	11.5	14.8	16.2	18.0	19.6	16.2	16.2	13.3	11.7	11.0	11.9	12.5	9.2	7.7	8.3	6.9	13.0	19.6	
16	5.5	2.8	3.7	7.5	6.2	2.4	6.7	4.5	3.8	5.4	7.6	5.3	5.4	6.8	7.2	7.2	9.2	9.6	6.9	7.3	8.7	8.8	11.2	10.6	6.7	11.2	
17	11.0	11.7	12.1	14.5	14.2	12.0	11.3	10.9	11.4	9.6	9.3	12.1	11.7	10.2	11.4	9.8	8.2	11.5	10.0	9.5	6.3	7.4	9.1	10.5	10.7	14.5	
18	10.8	11.9	14.8	15.8	15.6	17.1	17.3	14.7	12.4	10.4	6.2	7.1	8.6	7.8	6.8	7.7	6.1	5.1	5.2	4.5	6.5	7.3	8.6	8.1	9.9	17.3	
19	7.5	5.9	5.0	4.9	6.4	9.7	9.6	10.2	7.8	6.0	5.8	4.9	3.2	5.5	3.7	3.5	4.0	4.1	3.6	3.1	3.5	2.1	2.6	1.7	5.2	10.2	
20	2.0	1.6	2.6	2.7	2.7	5.9	5.5	3.7	3.4	.6	5.1	10.6	12.2	14.8	16.7	18.6	21.2	18.5	16.8	17.8	18.6	18.2	18.1	15.3	10.6	21.2	
21	13.7	11.4	10.4	8.9	6.6	3.0	3.0	6.8	8.1	8.9	9.5	10.5	9.0	10.4	10.0	9.4	8.0	8.7	11.3	13.5	12.3	12.8	15.2	16.7	9.9	16.7	
22	15.7	11.4	4.5	3.8	3.3	3.9	5.5	6.2	6.3	5.9	6.6	3.4	6.0	9.0	11.0	11.7	11.2	12.8	13.6	14.6	11.5	12.4	11.3	15.2	9.0	15.7	
23	12.2	12.8	11.1	11.2	11.8	10.1	10.8	8.0	9.2	11.7	11.7	9.9	8.3	9.8	10.0	10.0	10.6	11.1	12.3	12.8	10.9	18.6	17.0	16.4	11.6	18.6	
24	17.4	19.4	20.5	17.3	17.9	14.3	17.9	20.3	19.1	19.5	18.2	15.9	17.1	15.8	14.1	13.2	13.0	10.9	11.3	9.5	10.1	9.6	9.2	10.1	15.1	20.5	
25	10.4	10.3	10.5	10.3	10.0	9.1	8.9	7.6	5.0	17.6	17.5	16.6	16.8	16.2	16.8	15.3	15.5	15.8	13.8	13.0	12.7	13.4	15.8	14.4	13.1	17.6	
26	12.1	12.1	10.0	10.3	11.2	11.0	8.8	6.4	6.8	7.7	7.6	7.8	5.4	3.3	3.4	4.1	8.1	12.3	13.2	14.9	17.5	17.9	15.8	14.2	10.2	17.9	
27	13.9	12.8	13.5	13.6	15.2	15.0	17.7	19.9	20.5	20.4	19.7	19.3	17.5	18.4	20.7	21.2	18.9	20.9	22.3	21.8	24.8	27.6	25.6	21.5	19.3	27.6	
28	16.4	12.8	11.0	9.4	9.4	9.7	13.8	13.3	14.8	17.2	16.2	16.5	14.6	15.5	13.0	12.1	11.0	11.2	10.6	11.0	11.9	12.6	12.0	13.0	12.9	17.2	
29	13.5	11.8	7.7	4.9	1.8	1.6	4.1	7.0	8.1	5.9	5.5	4.7	5.2	5.7	8.0	5.9	4.8	6.6	9.0	6.9	5.7	4.5	2.9	5.0	6.1	13.5	
30	6.4	9.3	7.9	5.9	5.2	4.3	4.7	4.3	3.8	6.5	6.6	6.2	6.4	6.4	8.4	7.7	7.9	9.4	10.0	9.7	8.5	10.4	11.0	9.0	7.3	11.0	
AV	10.5	10.2	9.7	9.5	9.5	8.8	9.5	10.0	10.2	11.0	11.8	12.0	11.9	11.2	11.0	10.4	10.1	10.3	10.4	10.5	10.2	10.6	10.6	10.7	10.4	1	1
SD	5.8	6.2	6.6	6.3	6.6	5.9	5.9	6.2	6.5	6.3	6.2	6.6	7.0	5.7	6.1	5.7	5.7	6.3	5.6	5.9	5.7	6.3	6.0	6.0	5.1	1	1

WIND SPEED (000101)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTLEF WIND STUDY, #505
TEHACHAPI MTNS, CA.
SITE 4

DEC. 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	16.8	17.7	17.0	17.3	14.9	14.4	16.0	15.1	13.1	13.9	12.6	10.9	10.9	8.8	10.0	9.3	9.2	11.4	12.5	10.6	11.5	12.4	11.3	10.2	12.8	17.7
2	9.2	7.2	6.3	3.6	1.8	2.6	3.4	2.1	2.7	1.8	2.5	1.4	4.1	5.9	6.7	5.9	4.1	3.9	4.5	10.9	12.0	12.6	11.4	12.5	5.8	12.6
3	15.1	16.6	16.0	15.7	15.8	15.6	15.7	17.2	16.9	16.3	15.9	13.5	13.3	12.8	11.7	11.8	13.9	14.3	13.8	15.0	13.8	13.6	13.7	13.4	14.6	17.2
4	11.7	12.0	9.5	8.3	9.2	8.5	7.0	7.0	5.6	1.7	2.2	3.8	3.1	5.9	7.3	7.1	12.1	10.0	11.8	14.1	13.2	14.0	14.4	15.4	9.0	15.4
5	17.2	16.8	16.6	18.9	15.0	15.1	15.9	12.2	11.9	6.1	5.5	8.0	4.0	4.8	3.7	2.1	2.3	( )	( )	( )	( )	( )	( )	( )	10.2	18.9
6	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
7	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
8	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
9	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
10	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
11	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
12	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
13	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
14	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
15	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
16	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
17	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
18	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
19	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
20	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
21	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
22	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
23	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
24	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
25	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
26	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
27	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
28	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
29	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
30	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
31	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
AV	14.0	14.1	13.1	12.8	11.3	11.2	11.6	10.7	10.0	8.0	7.7	7.1	7.1	7.6	7.9	7.2	8.3	9.9	10.7	12.7	12.6	13.2	12.7	12.9	10.5	( )
SD	3.1	4.0	4.4	5.8	5.3	5.0	5.3	5.5	5.2	6.1	5.5	4.5	4.2	2.9	2.8	3.3	4.5	3.8	3.6	1.9	.9	.7	1.4	1.9	3.1	( )

WIND SPEED (CC101)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY #505
TEHACHAPI MTS. CA.
SITE 5

JUL. 1979

AEROENVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK	
1	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
2	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
3	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
4	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
5	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
6	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
7	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
8	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
9	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
10	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
11	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
12	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
13	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
14	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
15	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
16	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
17	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
18	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
19	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
20	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
21	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
22	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
23	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
24	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
25	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
26	8.0	10.0	10.0	7.0	4.0	7.0	9.0	11.0	12.0	11.0	9.0	8.0	10.0	12.0	11.0	9.0	10.0	10.0	12.0	12.0	10.0	11.0	11.0	10.0	8.0	10.7	13.0
27	14.0	13.0	15.0	14.0	11.0	8.0	7.0	4.0	5.0	13.0	12.0	13.0	15.0	15.0	15.0	16.0	18.0	19.0	22.0	22.0	17.0	9.0	9.0	11.0	13.2	22.0	
28	16.0	20.0	20.0	18.0	14.0	12.0	12.0	14.0	13.0	13.0	13.0	14.0	18.0	23.0	24.0	22.0	21.0	18.0	19.0	16.0	17.0	15.0	8.0	8.0	16.2	24.0	
29	14.0	9.0	12.0	10.0	9.0	9.0	5.0	.0	1.0	2.0	1.0	6.0	8.0	7.0	7.0	10.0	14.0	16.0	18.0	8.0	18.0	10.0	7.0	8.5	18.0		
30	4.0	2.0	2.0	3.0	6.0	5.0	1.0	.0	2.0	3.0	4.0	3.0	2.0	1.0	2.0	1.0	4.0	6.0	10.0	8.0	10.0	10.0	10.0	10.0	4.5	10.0	
31	9.0	7.0	8.0	7.0	5.0	5.0	2.0	2.0	5.0	5.0	7.0	8.0	7.0	7.0	4.0	9.0	10.0	13.0	12.0	14.0	13.0	14.0	12.0	12.0	8.2	14.0	
AV	10.8	10.2	11.2	9.8	8.2	7.7	6.0	5.2	6.3	7.8	7.7	8.7	10.0	10.8	10.9	10.7	11.7	12.9	14.7	14.0	12.3	13.1	10.1	10.0	10.2	[ ]	
SD	4.2	5.5	5.6	4.9	3.5	2.4	3.8	5.4	4.6	4.4	4.2	3.8	5.3	7.0	6.9	6.2	5.4	4.3	4.1	4.0	3.3	3.0	1.4	2.3	3.5	[ ]	

B-35

WIND SPEED ICC:011
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY.#505
TEHACHAPI MTNS, CA.
SITE 5

AUG, 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR [LOCAL STANDARD TIME]

B-36

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	14.0	13.0	12.0	13.0	13.0	15.0	14.0	14.0	13.0	13.0	15.0	19.0	19.0	18.0	19.0	18.0	20.0	22.0	21.0	20.0	19.0	16.0	11.0	13.0	16.0	22.0
2	13.0	13.0	11.0	16.0	14.0	13.0	12.0	12.0	10.0	13.0	15.0	14.0	13.0	13.0	10.0	10.0	10.0	10.0	13.0	16.0	19.0	21.0	19.0	17.0	13.4	21.0
3	18.0	19.0	18.0	21.0	20.0	23.0	15.0	10.0	10.0	4.0	3.0	0	0	1.0	6.0	13.0	14.0	14.0	14.0	12.0	16.0	15.0	16.0	16.0	12.4	23.0
4	17.0	11.0	17.0	14.0	12.0	11.0	7.0	12.0	10.0	8.0	8.0	10.0	9.0	7.0	10.0	14.0	14.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	12.3	18.0
5	17.0	16.0	16.0	12.0	13.0	11.0	6.0	1.0	3.0	7.0	7.0	1.0	2.0	10.0	11.0	5.0	5.0	10.0	9.0	12.0	17.0	20.0	19.0	19.0	10.4	20.0
6	19.0	17.0	13.0	11.0	10.0	14.0	14.0	14.0	14.0	11.0	11.0	15.0	12.0	11.0	11.0	12.0	15.0	15.0	15.0	14.0	12.0	11.0	12.0	12.0	13.1	19.0
7	13.0	11.0	10.0	9.0	9.0	10.0	10.0	11.0	10.0	9.0	13.0	13.0	11.0	10.0	9.0	6.0	7.0	7.0	9.0	10.0	7.0	8.0	10.0	11.0	9.7	13.0
8	12.0	8.0	7.0	9.0	7.0	8.0	12.0	13.0	13.0	11.0	11.0	12.0	14.0	14.0	14.0	14.0	15.0	15.0	18.0	17.0	17.0	13.0	12.0	12.0	12.4	18.0
9	0	0	1.0	0	0	1.0	2.0	5.0	2.0	2.0	5.0	5.0	8.0	10.0	9.0	10.0	7.0	2.0	2.0	0	0	2.0	3.0	4.0	3.3	10.0
10	3.0	3.0	4.0	4.0	4.0	8.0	8.0	6.0	2.0	1.0	5.0	6.0	9.0	10.0	7.0	7.0	8.0	7.0	4.0	3.0	1.0	0	0	0	4.6	10.0
11	3.0	3.0	1.0	3.0	4.0	3.0	3.0	3.0	4.0	5.0	7.0	13.0	16.0	17.0	16.0	16.0	15.0	10.0	6.0	2.0	2.0	3.0	3.0	2.0	6.7	17.0
12	2.0	1.0	2.0	2.0	2.0	0	1.0	6.0	7.0	7.0	7.0	7.0	6.0	11.0	13.0	9.0	10.0	9.0	11.0	13.0	11.0	9.0	10.0	9.0	6.9	13.0
13	7.0	9.0	10.0	11.0	11.0	12.0	13.0	9.0	11.0	13.0	14.0	15.0	14.0	15.0	16.0	15.0	21.0	17.0	17.0	18.0	18.0	19.0	18.0	16.0	14.1	21.0
14	16.0	16.0	18.0	14.0	11.0	6.0	1.0	1.0	1.0	5.0	7.0	2.0	3.0	7.0	10.0	16.0	17.0	17.0	12.5	12.0	15.5	15.0	12.0	9.0	10.2	18.0
15	9.5	8.5	7.5	4.5	1.5	1.0	1.0	5	2.0	2.0	3.5	6.5	4.0	7.5	10.0	7.5	9.5	11.0	8.0	8.5	8.5	5.5	7.5	2.0	5.7	11.0
16	5	3.0	1.5	5.0	4.0	1.0	1.5	0	5	1.0	3.5	9.5	7.0	9.0	9.5	10.0	10.0	10.5	9.5	9.0	6.0	5.0	4.0	5.0	5.2	10.5
17	5.5	5.0	2.0	1.5	0	5	2.0	1.0	5	5	2.0	3.0	5.0	5.0	6.0	7.5	7.5	2.5	5.0	7.5	6.0	5.0	5.5	5.5	3.8	7.5
18	4.0	2.5	2.0	6.5	4.5	2.0	5	2.5	5	3.0	11.5	11.0	7.5	3.0	2.5	3.0	2.5	4.5	7.5	8.0	5.0	1.0	5	5	4.0	11.5
19	5	1.5	2.5	5.5	6.5	7.0	8.0	9.5	10.0	6.5	4.5	5.0	5.0	13.0	14.0	15.5	13.0	9.0	8.5	9.5	5.5	3.0	1.0	5	6.9	15.5
20	4.5	4.5	3.0	4.0	4.0	8.5	8.0	8.0	9.5	7.5	6.5	7.0	9.5	12.0	11.0	8.5	7.0	7.0	4.0	2.0	4.0	2.0	3.5	2.0	6.1	12.0
21	8.0	8.0	7.0	6.5	4.5	5.0	6.5	8.0	10.0	10.0	9.5	9.5	4.5	4.5	4.5	2.0	2.5	4.5	5.5	5.0	4.0	5	5	5	5.5	10.0
22	5	1.0	4.5	7.0	6.0	4.5	4.5	4.0	6.5	7.0	7.0	8.0	8.5	6.5	7.5	6.0	4.0	3.0	7.0	8.0	6.5	8.0	6.5	11.0	6.0	11.0
23	7.5	4.5	2.5	1.5	5.5	8.0	10.5	8.5	10.5	12.5	13.5	12.0	11.5	11.0	13.5	12.5	10.0	12.5	8.5	12.0	12.0	7.5	6.0	3.5	9.1	13.5
24	5.0	12.0	11.0	9.0	12.5	12.0	11.0	12.5	12.5	14.0	13.5	12.0	12.0	9.5	6.0	8.5	12.5	11.5	8.0	16.5	11.5	11.5	5.0	5.0	10.6	16.5
25	8.0	6.5	4.5	10.5	6.0	10.0	12.0	11.0	14.5	18.0	17.5	19.0	20.0	21.5	20.0	20.5	23.0	22.5	23.0	18.5	15.0	7.0	10.5	12.5	14.6	23.0
26	11.0	11.0	19.5	21.0	19.5	21.5	20.5	17.0	18.5	16.5	17.0	18.0	18.0	17.0	18.5	19.0	21.5	20.5	20.5	20.0	20.0	20.5	22.0	17.5	18.6	22.0
27	17.5	18.0	17.5	18.0	11.0	13.5	11.0	11.5	10.0	11.0	12.0	11.5	12.5	13.5	13.5	15.0	15.0	18.5	20.5	18.5	15.5	14.5	15.5	16.0	14.6	20.5
28	15.0	15.0	13.0	13.5	13.5	10.5	13.0	11.5	11.0	12.0	13.0	16.0	17.0	16.0	15.5	15.5	13.5	11.0	10.5	10.5	7.0	8.0	6.5	7.0	12.3	17.0
29	8.5	6.5	8.0	9.0	9.5	10.5	12.5	13.5	13.5	11.5	11.5	13.5	11.5	9.5	10.0	10.5	9.5	7.5	11.0	8.0	6.0	5.0	11.0	10.0	9.9	13.5
30	9.0	9.0	11.0	11.0	10.0	8.0	7.0	9.0	10.0	7.0	(MT)	13.0	13.0	13.0	13.0	13.0	12.0	10.0	6.0	6.0	8.0	6.0	10.0	10.0	9.7	13.0
31	11.0	8.0	8.0	(TM)	(TM)	(TM)	(TM)	(TM)	(TM)	(TM)	(TM)	(TM)	(TM)	(TM)	5.0	7.0	7.0	6.0	3.0	0	6.0	3.0	3.0	(TM)	5.6	11.0
AV	9.0	8.5	8.5	9.1	8.3	8.6	8.3	8.2	8.3	8.3	9.4	10.2	10.1	10.9	11.0	11.2	11.5	10.9	10.7	10.7	10.2	9.1	9.0	8.9	9.5	11
SD	5.8	5.4	5.8	5.5	5.1	5.7	5.1	4.7	4.9	4.7	4.4	5.1	5.1	4.5	4.3	4.6	5.3	5.4	5.6	5.7	5.8	6.3	6.1	6.0	4.0	11

WIND SPEED (00101)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHAPI MTS, CA.
SITE 5

SEP. 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	2.5	2.5	3.5	5.5	9.0	11.0	10.5	9.5	8.5	9.0	8.5	6.5	3.0	2.5	4.0	6.4	11.0
2	8.5	7.0	10.5	10.0	3.0	.5	6.0	5.5	.5	3.0	4.5	10.0	12.5	12.5	14.0	16.5	15.5	14.5	10.5	8.5	7.5	7.5	2.0	2.0	8.0	16.5
3	5.5	9.0	8.0	4.5	1.5	(IM)	(IM)	(IM)	(IM)	3.0	7.5	10.0	11.0	10.0	9.5	11.5	13.5	13.5	16.5	16.0	17.0	15.5	14.5	14.0	10.6	17.0
4	16.0	16.5	11.0	9.0	11.5	11.5	10.5	5.5	(IM)	(IM)	3.5	8.5	10.5	12.0	11.5	10.5	9.5	8.0	6.5	8.0	8.0	2.0	2.0	5.0	9.0	16.5
5	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	7.0	9.0	10.0	9.5	7.0	4.0	1.0	(IM)	(IM)	(IM)	6.8	10.0
6	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	3.5	6.5	5.5	3.0	3.0	(IM)	(IM)	(IM)	(IM)	(IM)	4.3	6.5
7	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	.5	3.0	4.5	4.5	4.5	2.5	2.0	.5	.0	2.5	3.0	.0	1.0	2.0	2.2	4.5
8	3.5	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	1.0	1.0	2.0	4.0	4.0	6.0	7.0	7.5	6.0	(IM)	(IM)	3.0	6.0	6.0	4.4	7.5
9	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	1.0	3.0	10.5	8.5	6.5	7.0	8.5	10.0	8.5	6.5	8.5	7.1	10.5
10	8.5	3.0	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	6.0	8.5	8.5	8.0	9.5	10.0	10.5	10.0	8.0	8.5	8.3	10.5
11	8.0	7.0	5.0	2.5	1.0	2.0	2.5	5.5	4.0	1.0	2.0	3.0	6.0	9.0	9.5	8.0	9.0	8.5	9.0	9.0	9.0	9.5	8.5	7.5	6.1	9.5
12	9.5	9.0	(IM)	5.0	4.5	(IM)	3.0	1.0	(IM)	.0	.5	.5	1.5	2.5	8.5	10.5	11.5	10.5	8.5	10.0	10.0	10.5	10.5	12.0	6.6	12.0
13	12.5	12.0	10.5	5.0	8.0	9.0	3.5	(IM)	(IM)	3.5	5.0	11.0	12.0	14.0	14.5	13.0	15.0	14.0	12.0	13.0	13.5	14.0	15.5	14.5	11.1	15.5
14	15.5	17.0	17.0	18.5	20.0	14.0	2.0	12.0	10.0	1.0	1.0	1.0	1.5	5.0	7.0	10.0	10.0	10.0	10.0	12.0	11.0	10.0	8.0	3.0	9.4	20.0
15	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	1.0	5.0	6.0	5.0	4.0	5.0	5.0	5.0	2.0	(IM)	(IM)	1.0	(IM)	(IM)	(IM)	(IM)	3.9	6.0
16	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	1.0	1.0	1.0	(IM)	(IM)	(IM)	6.0	6.0	3.0	7.0	8.0	6.0	(IM)	(IM)	4.3	8.0
17	(IM)	(IM)	4.0	7.0	8.0	.0	.0	1.0	3.0	6.0	8.0	10.0	11.0	10.0	11.0	13.0	12.0	11.0	12.0	10.0	10.0	11.0	13.0	14.0	8.4	14.0
18	13.0	14.0	14.0	13.0	12.0	12.0	9.0	8.0	7.0	6.0	4.0	5.0	6.0	10.0	15.0	19.0	19.0	18.0	16.0	17.0	16.0	15.0	16.0	15.0	12.5	19.0
19	14.0	13.0	12.0	13.0	14.0	11.0	8.0	.0	(IM)	(IM)	3.0	4.0	6.0	10.0	8.0	10.0	10.0	7.0	6.0	5.0	6.0	10.0	5.0	3.0	8.1	14.0
20	3.0	5.0	5.0	2.0	2.0	1.0	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	2.0	2.0	1.0	3.0	2.0	2.0	1.0	(IM)	(IM)	2.4	5.0
21	2.0	2.0	2.0	2.0	1.0	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	2.0	4.0	4.0	5.0	4.0	2.0	(IM)	1.0	3.0	3.0	(IM)	1.0	2.5	5.0
22	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	3.0	5.0	5.0	4.0	4.0	4.0	(IM)	(IM)	1.0	5.0	4.0	1.0	3.6	5.0
23	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	1.0	5.0	5.0	4.0	3.0	1.0	(IM)	(IM)	(IM)	1.0	(IM)	(IM)	2.9	5.0
24	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	3.0	3.0	4.0	5.0	5.0	2.0	1.0	(IM)	(IM)	1.0	(IM)	(IM)	(IM)	(IM)	3.0	5.0
25	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	3.0	6.0	6.0	7.0	3.0	1.0	1.0	(IM)	(IM)	(IM)	3.0	7.0
26	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	2.0	5.0	5.0	1.0	4.0	1.0	(IM)	(IM)	(IM)	(IM)	(IM)	3.0	5.0
27	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	1.0	1.0	1.0	1.0	2.0	1.0	.0	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	1.0	2.0
28	(IM)	(IM)	(IM)	1.0	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	2.0	2.0	3.0	2.0	4.0	2.0	.0	(IM)	1.0	2.0	(IM)	1.9	4.0
29	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	2.0	4.0	(IM)	(IM)	2.0	2.0	4.0	9.0	9.0	10.0	13.0	11.0	4.0	2.0	2.0	5.0	2.0	6.0	5.4	13.0
30	6.0	4.0	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	2.0	5.0	4.0	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	4.2	6.0
AV	9.0	9.1	9.0	7.1	7.2	6.8	4.7	4.7	4.3	3.1	3.2	4.6	5.1	6.5	7.1	7.9	7.7	7.4	7.2	6.7	7.4	6.9	7.1	7.1	5.7	( )
SD	4.5	4.8	4.4	5.1	5.9	5.4	3.3	3.6	3.3	2.0	2.3	3.6	3.8	3.7	3.8	4.4	4.9	4.5	4.4	4.9	4.7	4.7	4.9	4.8	3.0	( )

WIND SPEED (C1011)

MILFS/HOUR

LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHAPI MTNS, CA.
SITE 5

OCT. 1979

AFROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

B-38

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	( )	( )
2	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	( )	( )
3	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
4	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
5	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
6	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
7	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
8	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
9	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
10	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
11	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
12	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
13	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
14	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
15	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
16	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
17	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
18	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
19	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
20	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
21	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
22	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
23	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	(OR)	( )	( )
24	2.3	1.5	2.7	2.3	1.7	1.2	1.9	1.0	1.9	1.9	3.2	2.7	3.7	4.2	4.5	5.1	8.5	11.8	10.5	13.7	12.3	9.7	8.4	9.4	5.2	13.7
25	7.6	5.3	5.9	5.6	5.9	5.4	5.3	7.2	5.5	5.5	5.5	9.6	8.7	11.7	11.9	10.2	12.7	13.8	18.1	14.7	7.5	11.8	20.5	22.9	9.9	22.9
26	22.9	22.4	21.8	18.7	11.0	19.5	17.1	19.7	18.4	10.7	10.1	10.7	12.4	13.3	9.9	9.4	13.3	9.6	10.6	7.2	2.6	2.8	4.6	3.0	12.6	22.9
27	8.3	10.3	9.0	3.3	4.9	1.9	2.3	1.3	1.2	1.1	2.0	4.0	4.8	4.0	3.3	3.7	9.4	13.7	9.5	8.0	10.0	22.3	15.3	15.5	7.0	22.3
28	16.7	20.3	10.3	7.6	15.1	15.9	15.4	14.6	15.9	14.2	13.4	14.1	17.2	35.6	33.2	27.3	25.7	18.1	19.3	21.3	26.0	19.6	17.8	19.6	18.9	35.6
29	19.3	23.4	25.3	25.4	22.4	20.5	21.8	23.7	25.7	24.7	24.5	18.7	5.8	14.7	17.3	17.3	25.1	21.3	16.4	13.4	10.3	16.7	21.8	17.5	19.7	25.7
30	14.8	15.0	5.0	5.5	6.2	5.6	3.4	2.3	2.8	2.5	4.8	3.2	3.4	3.7	4.9	5.2	3.9	8.8	11.1	12.3	8.8	4.8	5.6	6.2	6.2	15.0
31	5.2	6.8	9.0	10.4	10.8	12.3	13.4	6.6	6.2	5.8	7.1	8.3	12.1	13.4	12.3	15.8	13.0	12.3	9.8	7.1	8.6	5.6	6.0	3.0	9.2	15.8
AV	12.1	13.1	11.1	9.9	9.8	10.3	10.1	9.6	9.7	8.3	8.8	8.9	8.5	12.6	11.5	11.2	12.8	12.4	12.2	11.1	9.8	10.5	11.3	11.0	10.3	( )
SD	6.8	7.8	7.6	7.6	6.2	7.3	7.3	8.2	8.5	7.5	6.9	5.3	4.7	9.7	8.8	7.2	7.5	4.9	4.5	5.2	6.6	7.1	7.1	7.6	5.5	( )

WIND SPEED (CC101)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHAPI MTNS. CA.
SITE S

NOV. 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SURJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

B-39

CAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	10.8	18.8	12.4	5.0	2.6	3.3	3.1	1.5	2.1	2.0	5.3	4.7	1.5	2.0	4.6	8.7	9.2	7.8	6.8	8.0	6.1	4.8	4.3	4.7	5.8	18.8
2	6.0	5.1	2.8	2.7	2.7	2.2	2.0	1.3	1.9	3.8	2.4	3.3	2.4	1.6	1.6	2.7	7.3	8.8	7.4	4.6	3.3	2.9	2.4	3.7	3.5	8.8
3	4.5	4.5	2.5	3.8	1.8	2.7	7.2	7.7	6.5	6.4	6.8	8.7	8.5	6.7	7.5	7.7	9.5	11.2	12.5	12.4	14.0	14.1	11.6	9.2	7.8	14.1
4	6.3	10.6	13.8	13.3	12.7	9.9	8.9	9.5	18.4	16.4	14.0	13.1	8.4	7.8	11.6	16.1	20.5	16.3	17.4	14.6	15.6	11.5	7.7	8.6	12.6	20.5
5	9.1	15.6	9.1	12.3	4.1	6.4	7.6	4.2	2.9	2.8	2.4	3.1	3.0	1.8	2.0	3.1	6.6	8.5	10.6	11.1	11.9	10.3	11.5	9.3	7.1	15.6
6	5.6	5.5	6.0	6.4	2.4	2.6	4.6	5.4	6.5	3.5	6.3	12.6	9.8	4.0	2.0	2.9	1.5	2.0	4.9	7.6	9.9	12.2	11.2	9.1	6.0	12.6
7	3.2	5.4	5.5	4.5	6.3	7.5	9.3	12.1	12.5	11.9	14.7	13.0	6.9	9.3	6.3	2.8	2.9	4.4	5.6	5.5	3.3	5.8	5.2	3.9	7.0	14.7
8	3.6	6.1	7.1	8.7	10.8	9.8	14.5	13.6	12.7	12.0	15.5	13.7	12.6	14.6	8.8	9.0	10.1	8.9	11.3	11.6	18.7	17.5	19.6	20.4	12.1	20.4
9	20.2	19.1	19.0	20.1	14.9	14.6	13.6	22.6	21.7	24.7	12.0	6.3	11.3	10.4	11.7	11.5	15.8	16.2	17.3	19.6	6.2	2.8	1.1	1.4	13.9	24.7
10	2.3	1.6	1.4	2.4	1.4	1.2	1.2	2.3	5.3	6.7	6.3	4.8	4.0	2.9	4.1	4.7	4.0	4.6	5.4	3.0	2.8	2.2	4.5	7.4	3.6	7.4
11	11.2	13.7	14.3	12.8	11.6	7.3	5.8	3.2	2.4	3.2	7.1	5.4	7.5	8.7	7.6	4.2	4.1	4.3	2.9	2.1	2.3	1.7	1.5	2.0	6.1	14.3
12	1.0	1.3	1.6	2.2	2.2	2.4	1.5	1.0	5.5	8.2	9.8	10.4	9.3	11.7	10.2	7.6	5.6	7.4	8.9	3.6	1.7	2.0	2.4	1.5	5.0	11.7
13	1.1	1.4	2.2	2.0	2.7	3.4	2.9	2.9	1.5	5.7	8.2	8.7	8.7	10.0	10.9	9.1	6.8	4.5	6.0	6.3	2.4	2.3	3.6	4.8	4.9	10.9
14	2.5	2.0	2.7	3.4	2.4	2.7	2.4	4.1	1.1	2.1	5.2	7.7	9.8	10.7	10.4	10.6	9.7	6.9	7.7	8.1	3.3	2.0	3.0	1.9	5.1	10.7
15	3.1	2.6	1.7	1.2	.9	2.3	3.8	2.1	1.1	3.2	6.8	10.4	10.8	10.2	9.2	8.8	7.9	5.7	4.8	6.3	1.8	.8	.8	.5	4.5	10.8
16	1.8	1.1	1.5	2.2	2.3	1.6	2.8	3.0	3.1	3.8	5.8	7.9	7.4	7.2	6.8	5.3	5.3	3.6	2.3	2.0	2.0	1.5	4.9	8.9	3.9	8.9
17	21.2	22.9	23.6	17.3	8.2	3.5	6.9	9.9	9.8	15.6	20.6	22.4	20.1	18.1	16.9	11.8	9.6	10.6	10.3	12.0	13.6	11.4	10.7	5.9	13.9	23.6
18	8.5	12.0	23.4	17.3	21.3	32.0	32.3	11.1	9.0	15.8	19.1	15.2	16.5	13.0	11.2	11.5	11.7	11.6	10.1	10.4	15.0	20.4	20.0	15.2	16.0	32.3
19	12.9	13.8	14.0	16.7	14.4	11.2	20.1	27.7	29.1	21.3	7.3	8.7	13.5	17.4	18.7	16.9	6.9	5.9	16.0	18.7	26.8	23.5	7.9	14.7	16.0	29.1
20	15.1	11.9	10.1	2.1	3.1	2.4	2.8	2.4	1.4	2.1	3.3	2.7	1.7	3.6	4.2	3.4	2.4	3.8	9.3	4.7	5.8	2.5	1.7	6.5	4.5	15.1
21	5.1	2.4	7.3	2.6	.6	5.3	4.3	2.6	6.4	10.0	7.0	8.7	7.9	7.2	7.9	7.2	6.1	2.5	4.3	6.2	.9	.5	.0	.8	4.7	10.0
22	.0	.0	.0	.9	1.9	.7	.9	1.8	.2	1.7	2.0	.7	.8	.8	2.1	1.9	.7	.9	7.2	8.4	8.1	6.1	7.1	9.8	2.7	9.8
23	10.3	12.9	14.3	16.7	13.8	13.3	12.3	17.8	23.5	24.3	13.0	9.7	19.7	26.6	14.7	13.6	11.1	12.1	13.4	9.7	16.8	16.3	17.1	15.6	15.4	26.6
24	11.9	15.8	18.2	10.0	9.7	13.2	5.9	10.2	8.4	15.3	13.9	16.7	18.3	18.0	16.0	13.2	13.8	11.1	14.2	17.2	14.5	15.3	12.0	13.8	13.6	18.3
25	15.5	11.1	9.4	9.9	11.1	10.5	10.2	10.4	14.3	13.9	13.2	17.2	18.9	13.9	15.4	18.1	16.2	15.5	10.2	12.9	13.6	14.4	13.7	13.2	13.4	18.9
26	17.3	26.7	25.6	26.0	26.3	27.6	29.2	26.4	28.2	28.9	26.8	22.9	19.1	20.0	19.3	18.4	16.3	11.6	10.2	15.9	14.6	18.9	13.2	21.6	21.3	29.2
27	18.8	5.6	2.1	1.6	.8	3.2	3.6	3.2	3.1	1.4	1.2	4.6	9.9	11.2	10.2	9.9	9.6	6.6	7.5	8.3	9.5	10.4	8.6	8.6	6.6	18.8
28	7.4	2.4	3.5	4.5	7.8	8.8	9.0	8.8	9.2	6.5	12.0	15.1	12.4	10.3	9.5	9.3	9.1	6.9	8.2	8.4	9.9	9.0	8.3	3.3	8.3	15.1
29	3.3	2.3	2.4	.9	4.0	4.6	1.9	1.1	.9	2.2	4.1	6.3	7.0	7.2	5.9	4.5	2.7	1.9	3.0	3.5	3.3	.3	.1	.9	3.1	7.2
30	2.3	1.6	.8	1.4	.5	.8	.5	.3	.5	.5	.6	1.1	2.9	4.4	5.3	5.5	4.3	1.4	2.3	3.3	7.1	4.3	1.2	1.5	2.3	7.1
AV	8.1	8.5	8.6	7.7	6.8	7.2	7.7	7.7	8.3	9.2	9.1	9.5	9.7	9.7	9.1	8.7	8.2	7.5	8.6	8.9	8.8	8.3	7.2	7.6	8.4	[ ]
SD	6.1	7.2	7.5	6.9	6.5	7.3	7.7	7.4	8.2	7.8	6.1	5.7	5.6	6.0	4.9	4.7	4.7	4.3	4.2	4.8	6.3	6.7	5.7	5.8	5.0	[ ]

WIND SPEED 1001011
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTFLE WIND STUDY #505
TEHACHAPI MTS, CA.
SITE 6

JUN, 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVF	PEAK
1	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
2	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
3	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
4	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
5	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
6	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
7	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
8	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	12.0	12.0	12.0	10.0	9.0	9.0	6.0	3.0	5.0	3.0	2.0	2.0	1.0	1.0	6.2	12.0
9	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	12.0	13.0	13.0	12.0	11.0	9.0	3.0	5.0	6.0	6.0	5.0	4.0	1.0	2.0	4.0	5.0	13.0
10	5.0	3.0	3.0	3.0	3.0	2.0	1.0	2.0	5.0	9.0	13.0	12.0	13.0	11.0	11.0	7.0	4.0	3.0	5.0	3.0	3.0	3.0	3.0	1.0	5.3	13.0
11	1.0	1.0	1.0	2.0	3.0	1.0	1.0	2.0	5.0	6.0	6.0	7.0	6.0	5.0	7.0	6.0	5.0	7.0	4.0	1.0	1.0	1.0	1.0	3.0	3.5	7.0
12	1.0	2.0	3.0	2.0	1.0	5.0	6.0	8.0	5.0	5.0	4.0	3.0	6.0	5.0	5.0	4.0	3.0	5.0	6.0	4.0	4.0	5.0	4.0	2.0	4.1	8.0
13	3.0	3.0	3.0	1.0	2.0	2.0	1.0	2.0	2.0	1.0	1.0	3.0	5.0	8.0	9.0	6.0	5.0	6.0	5.0	5.0	4.0	12.0	13.0	15.0	4.5	15.0
14	12.0	11.0	6.0	6.0	6.0	7.0	8.0	7.0	6.0	6.0	9.0	9.0	8.0	10.0	10.0	10.0	11.0	10.0	12.0	12.0	14.0	14.0	14.0	16.0	9.8	16.0
15	17.0	17.0	18.0	17.0	13.0	13.0	10.0	10.0	10.0	9.0	10.0	11.0	11.0	12.0	13.0	12.0	13.0	14.0	14.0	15.0	16.0	16.0	16.0	16.0	13.5	18.0
16	15.0	15.0	17.0	15.0	14.0	12.0	11.0	12.0	10.0	11.0	11.0	12.0	17.0	20.0	18.0	18.0	18.0	19.0	21.0	22.0	24.0	26.0	27.0	26.0	17.1	27.0
17	25.0	24.0	22.0	24.0	22.0	21.0	23.0	22.0	18.0	15.0	17.0	15.0	16.0	20.0	21.0	24.0	24.0	24.0	23.0	22.0	19.0	16.0	16.0	14.0	20.3	25.0
18	15.0	14.0	15.0	14.0	12.0	8.0	8.0	10.0	13.0	11.0	12.0	12.0	13.0	14.0	12.0	12.0	13.0	15.0	16.0	14.0	11.0	13.0	10.0	10.0	12.4	16.0
19	10.0	9.0	7.0	6.0	5.0	4.0	2.0	2.0	2.0	4.0	4.0	5.0	3.0	3.0	4.0	3.0	3.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	3.6	10.0
20	6.0	5.0	5.0	3.0	3.0	3.0	2.0	1.0	1.0	2.0	3.0	3.0	5.0	7.0	7.0	8.0	7.0	6.0	5.0	4.0	5.0	6.0	10.0	13.0	5.0	13.0
21	14.0	17.0	15.0	15.0	15.0	13.0	11.0	12.0	10.0	10.0	12.0	13.0	13.0	14.0	15.0	16.0	16.0	18.0	16.0	14.0	14.0	15.0	19.0	19.0	14.4	19.0
22	18.0	19.0	16.0	16.0	14.0	12.0	9.0	7.0	7.0	10.0	11.0	9.0	9.0	10.0	11.0	13.0	14.0	13.0	14.0	12.0	11.0	10.0	10.0	10.0	11.9	19.0
23	11.0	9.0	8.0	10.0	9.0	8.0	7.0	6.0	5.0	8.0	8.0	7.0	7.0	7.0	8.0	9.0	10.0	9.0	7.0	6.0	5.0	6.0	6.0	6.0	7.6	11.0
24	6.0	5.0	5.0	4.0	4.0	4.0	4.0	3.0	2.0	2.0	3.0	4.0	6.0	7.0	8.0	8.0	8.0	8.0	9.0	9.0	11.0	13.0	14.0	6.5	14.0	
25	14.0	12.0	10.0	9.0	10.0	9.0	10.0	9.0	7.0	6.0	6.0	6.0	9.0	10.0	12.0	11.0	11.0	10.0	8.0	7.0	8.0	7.0	8.0	10.0	9.1	14.0
26	10.0	13.0	13.0	11.0	9.0	10.0	10.0	11.0	9.0	8.0	7.0	8.0	10.0	11.0	13.0	12.0	11.0	11.0	13.0	11.0	11.0	10.0	10.0	10.0	10.5	13.0
27	9.0	7.0	6.0	8.0	5.0	4.0	5.0	6.0	4.0	4.0	5.0	6.0	8.0	8.0	9.0	11.0	12.0	11.0	10.0	9.0	8.0	7.0	10.0	9.0	7.5	12.0
28	7.0	6.0	10.0	9.0	7.0	5.0	7.0	7.0	6.0	8.0	10.0	11.0	12.0	10.0	10.0	8.0	8.0	8.0	8.0	8.0	7.0	7.0	6.0	6.0	8.0	12.0
29	6.0	9.0	5.0	4.0	6.0	4.0	4.0	3.0	2.0	2.0	5.0	5.0	4.0	5.0	6.0	5.0	7.0	7.0	6.0	6.0	7.0	10.0	8.0	7.0	5.5	10.0
30	7.0	8.0	7.0	5.0	10.0	9.0	8.0	5.0	7.0	7.0	6.0	6.0	8.0	10.0	10.0	9.0	8.0	8.0	7.0	8.0	7.0	6.0	6.0	7.0	7.5	10.0
AV	9.7	9.5	8.9	8.4	7.8	7.0	6.8	6.7	6.5	7.1	8.2	8.3	9.3	9.9	10.3	9.7	9.7	9.7	9.7	8.8	8.5	8.9	9.3	9.6	8.6	( )
SD	6.1	6.2	6.0	6.1	5.5	5.0	4.9	4.9	4.1	3.6	4.0	3.6	3.7	4.2	3.9	4.8	5.1	5.3	5.4	5.7	5.7	5.9	6.3	6.3	4.4	( )

B-40

ACQUIT 111 MAY 791

MPLES/HOUR
LEVEL HEIGHT : 10 METERS

HATFIELD WIND STUDY, #505
TEHACHAPI MTS., CA.
SITE 6

JUL. 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SURJECT TO *
* REVISION *
*****

CLOCK HOUR [LOCAL STANDARD TIME]

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	9.0	10.0	8.0	7.0	7.0	5.0	5.0	7.0	7.0	7.0	9.0	8.0	7.0	7.0	7.0	7.0	5.0	4.0	3.0	2.0	2.0	1.0	4.0	3.0	5.9	10.0
2	1.0	1.0	3.0	2.0	1.0	2.0	1.0	.0	2.0	3.0	4.0	4.0	4.0	5.0	6.0	7.0	4.0	5.0	4.0	.0	4.0	7.0	7.0	8.0	3.5	8.0
3	5.0	2.0	.0	1.0	1.0	1.0	1.0	2.0	5.0	6.0	6.0	7.0	8.0	9.0	10.0	10.0	10.0	10.0	10.0	8.0	8.0	10.0	14.0	13.0	6.5	14.0
4	15.0	16.0	14.0	14.0	10.0	8.0	9.0	7.0	6.0	9.0	10.0	12.0	12.0	13.0	13.0	11.0	10.0	10.0	9.0	8.0	10.0	9.0	10.0	12.0	10.7	14.0
5	14.0	15.0	15.0	13.0	13.0	11.0	8.0	8.0	9.0	8.0	10.0	13.0	13.0	13.0	13.0	14.0	13.0	14.0	14.0	13.0	12.0	13.0	14.0	15.0	12.4	15.0
6	12.0	12.0	14.0	9.0	8.0	6.0	7.0	6.0	5.0	6.0	10.0	11.0	12.0	13.0	13.0	13.0	12.0	10.0	10.0	10.0	10.0	8.0	8.0	9.0	9.8	14.0
7	10.0	11.0	9.0	4.0	4.0	4.0	4.0	3.0	3.0	4.0	5.0	5.0	5.0	8.0	8.0	10.0	10.0	8.0	8.0	8.0	10.0	8.0	7.0	9.0	6.9	11.0
8	8.0	8.0	12.0	15.0	12.0	10.0	9.0	3.0	4.0	4.0	5.0	7.0	8.0	7.0	9.0	7.0	6.0	6.0	3.0	3.0	1.0	.0	1.0	.0	6.2	15.0
9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	4.0	4.0	6.0	6.0	8.0	7.0	7.0	7.0	7.0	8.0	10.0	15.0	14.0	4.4	15.0
10	12.0	12.0	11.0	9.0	8.0	6.0	9.0	11.0	11.0	13.0	13.0	15.0	13.0	13.0	13.0	13.0	11.0	12.0	12.0	14.0	15.0	15.0	16.0	19.0	12.4	19.0
11	22.0	20.0	20.0	17.0	14.0	13.0	10.0	9.0	12.0	13.0	16.0	16.0	15.0	17.0	16.0	21.0	20.0	18.0	21.0	24.0	23.0	18.0	18.0	19.0	17.2	24.0
12	18.0	16.0	13.0	14.0	15.0	14.0	13.0	10.0	9.0	9.0	10.0	11.0	11.0	12.0	13.0	13.0	13.0	13.0	13.0	12.0	11.0	9.0	7.0	9.0	12.0	18.0
13	7.0	5.0	5.0	4.0	3.0	3.0	2.0	.0	1.0	3.0	3.0	4.0	6.0	7.0	6.0	6.0	7.0	6.0	6.0	5.0	5.0	4.0	3.0	6.0	4.5	7.0
14	5.0	3.0	3.0	2.0	.0	1.0	.0	.0	2.0	3.0	3.0	6.0	7.0	7.0	8.0	8.0	9.0	7.0	7.0	7.0	5.0	5.0	3.0	6.0	4.5	9.0
15	3.0	3.0	4.0	2.0	.0	.0	.0	.0	.0	1.0	2.0	4.0	6.0	8.0	7.0	8.0	5.0	3.0	1.0	.0	.0	.0	1.0	4.0	2.6	8.0
16	2.0	.0	.0	.0	.0	.0	2.0	3.0	2.0	3.0	8.0	11.0	8.0	4.0	4.0	6.0	6.0	7.0	7.0	5.0	7.0	5.0	5.0	5.0	4.2	11.0
17	3.0	4.0	2.0	1.0	1.0	1.0	.0	.0	1.0	3.0	6.0	8.0	9.0	11.0	13.0	12.0	11.0	10.0	9.0	10.0	9.0	13.0	16.0	16.0	7.0	16.0
18	16.0	15.0	13.0	10.0	6.0	4.0	5.0	3.0	4.0	4.0	5.0	8.0	12.0	11.0	13.0	13.0	12.0	13.0	10.0	7.0	6.0	8.0	6.0	6.0	8.8	16.0
19	5.0	5.0	4.0	9.0	3.0	5.0	13.0	8.0	4.0	6.0	2.0	2.0	3.0	3.0	7.0	9.0	5.0	3.0	4.0	4.0	2.0	3.0	10.0	19.0	5.8	19.0
20	15.0	23.0	24.0	26.0	24.0	21.0	21.0	21.0	21.0	16.0	15.0	15.0	16.0	15.0	13.0	12.0	11.0	10.0	14.0	13.0	10.0	10.0	10.0	10.0	16.1	26.0
21	10.0	7.0	2.0	4.0	5.0	6.0	5.0	4.0	3.0	4.0	5.0	4.0	6.0	9.0	10.0	11.0	12.0	13.0	14.0	14.0	14.0	8.0	5.0	3.0	7.8	14.0
22	4.0	4.0	5.0	4.0	3.0	4.0	2.0	4.0	4.0	3.0	5.0	8.0	9.0	10.0	11.0	13.0	15.0	14.0	13.0	11.0	11.0	9.0	8.0	8.0	7.6	15.0
23	10.0	11.0	11.0	11.0	11.0	11.0	9.0	8.0	9.0	7.0	8.0	10.0	10.0	10.0	12.0	13.0	12.0	12.0	13.0	15.0	13.0	12.0	12.0	12.0	10.9	15.0
24	12.0	12.0	11.0	10.0	10.0	10.0	8.0	8.0	7.0	5.0	6.0	7.0	9.0	11.0	9.0	10.0	10.0	10.0	10.0	9.0	9.0	7.0	6.0	7.0	8.9	12.0
25	6.0	5.0	6.0	7.0	6.0	4.0	6.0	7.0	6.0	4.0	5.0	6.0	6.0	7.0	9.0	9.0	9.0	8.0	7.0	6.0	5.0	3.0	1.0	.0	5.8	9.0
26	1.0	3.0	3.0	4.0	3.0	2.0	4.0	2.0	3.0	2.0	.0	2.0	2.0	5.0	7.0	6.0	6.0	7.0	7.0	7.0	9.0	10.0	11.0	13.0	5.0	13.0
27	13.0	14.0	14.0	12.0	11.0	10.0	11.0	11.0	10.0	8.0	10.0	8.0	8.0	9.0	10.0	9.0	12.0	13.0	14.0	14.0	14.0	14.0	14.0	12.0	11.5	14.0
28	12.0	12.0	13.0	14.0	11.0	9.0	7.0	6.0	5.0	4.0	6.0	6.0	7.0	8.0	9.0	10.0	12.0	13.0	13.0	14.0	11.0	12.0	11.0	10.0	9.8	14.0
29	10.0	12.0	12.0	13.0	12.0	11.0	7.0	5.0	7.0	6.0	7.0	5.0	7.0	8.0	7.0	9.0	6.0	6.0	8.0	8.0	8.0	10.0	10.0	7.0	8.4	13.0
30	6.0	5.0	7.0	7.0	6.0	4.0	4.0	3.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	3.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0	3.0	3.5	7.0
31	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	2.0	3.0	4.0	6.0	7.0	8.0	11.0	10.0	10.0	10.0	8.2	11.0
AV	8.7	8.7	8.4	8.0	6.8	6.1	6.0	5.2	5.4	5.4	6.4	7.4	7.9	8.6	9.2	9.9	9.3	9.1	9.1	8.6	8.8	8.3	8.7	9.2	7.9	[ ]
SD	5.4	6.0	6.0	5.9	5.5	4.8	4.7	4.5	4.3	3.7	4.0	4.0	3.8	3.8	3.5	3.6	3.7	3.8	4.2	4.9	4.7	4.3	4.6	5.2	3.6	[ ]

B-41
ADDDT [11 MAY 79]

WIND SPEED (001011)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

RATTELLE WIND STUDY, #505
TEHACHAPI MTS, CA.
SITE 6

AUG. 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 24/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK	
1	9.0	9.0	10.0	11.0	13.0	14.0	10.0	10.0	8.0	10.0	8.0	8.0	7.0	7.0	9.0	11.0	12.0	14.0	14.0	15.0	17.0	17.0	16.0	14.0	11.4	17.0	
2	14.0	13.0	16.0	16.0	17.0	15.0	13.0	11.0	10.0	11.0	11.0	10.0	10.0	9.0	8.0	9.0	9.0	10.0	12.0	12.0	12.0	13.0	14.0	12.0	12.0	17.0	
3	11.0	11.0	10.0	9.0	9.0	10.0	11.0	10.0	6.0	6.0	6.0	8.0	8.0	4.0	4.0	5.0	6.0	8.0	10.0	11.0	10.0	9.0	9.0	9.0	8.3	11.0	
4	10.0	7.0	3.0	3.0	4.0	6.0	7.0	6.0	8.0	9.0	10.0	9.0	9.0	8.0	7.0	7.0	8.0	10.0	8.0	6.0	4.0	3.0	4.0	6.0	6.8	10.0	
5	6.0	4.0	4.0	3.0	2.0	3.0	3.0	4.0	4.0	6.0	7.0	8.0	8.0	9.0	6.0	4.0	4.0	6.0	7.0	6.0	6.0	8.0	5.0	3.0	5.3	9.0	
6	3.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	3.0	6.0	8.0	10.0	9.0	9.0	7.0	4.0	2.0	2.0	3.0	2.0	3.0	1.0	3.0	3.5	10.0	
7	2.0	1.0	1.0	1.0	.0	.0	1.0	3.0	3.0	3.0	5.0	6.0	7.0	8.0	9.0	8.0	5.0	9.0	6.0	4.0	2.0	1.0	2.0	2.0	3.7	9.0	
8	.0	.0	.0	1.0	2.0	2.0	2.0	5.0	8.0	11.0	11.0	10.0	10.0	10.0	10.0	10.0	9.0	9.0	9.0	8.0	7.0	6.0	9.0	7.0	6.5	11.0	
9	5.0	4.0	4.0	3.0	3.0	1.0	2.0	3.0	3.0	4.0	4.0	5.0	6.0	7.0	7.0	6.0	6.0	3.0	3.0	3.0	2.0	1.0	1.0	2.0	3.7	7.0	
10	1.0	1.0	1.0	1.0	1.0	2.0	1.0	2.0	2.0	2.0	1.0	3.0	4.0	5.0	2.0	4.0	5.0	3.0	3.0	4.0	1.0	1.0	.0	1.0	3.0	2.1	5.0
11	3.0	2.0	1.0	.0	1.0	1.0	2.0	4.0	8.0	8.0	12.0	13.0	12.0	12.0	14.0	14.0	15.0	13.0	11.0	9.0	6.0	8.0	7.0	8.0	7.7	15.0	
12	8.0	6.0	3.0	1.0	1.0	1.0	1.0	4.0	9.0	11.0	10.0	7.0	3.0	7.0	5.0	.0	.0	3.0	5.0	9.0	9.0	5.0	8.0	7.0	5.1	11.0	
13	6.0	7.0	7.0	6.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	5.0	7.0	9.0	9.0	10.0	12.0	12.0	12.0	11.0	11.0	10.0	11.0	14.0	7.7	14.0	
14	14.0	14.0	13.0	10.0	7.0	5.0	6.0	5.0	4.0	3.0	5.0	3.0	5.0	8.0	10.0	10.0	10.0	11.0	9.0	10.0	8.0	5.0	5.0	5.0	7.7	14.0	
15	5.0	5.0	6.0	7.0	4.0	3.0	3.0	.0	1.0	1.0	3.0	4.0	6.0	5.0	6.0	7.0	7.0	5.0	4.0	2.0	2.0	.0	1.0	2.0	3.7	7.0	
16	1.0	.0	1.0	1.0	.0	.0	.0	.0	.0	.0	4.0	9.0	9.0	10.0	5.0	2.0	3.0	3.0	2.0	2.0	.0	.0	1.0	1.0	2.3	10.0	
17	3.0	3.0	2.0	1.0	.0	.0	2.0	4.0	2.0	4.0	6.0	6.0	5.0	4.0	4.0	4.0	1.0	3.0	1.0	.0	.0	.0	1.0	2.0	2.4	6.0	
18	4.0	1.0	3.0	3.0	2.0	.0	.0	.0	.0	4.0	8.0	4.0	2.0	5.0	8.0	9.0	6.0	4.0	1.0	1.0	9.0	16.0	14.0	6.0	4.6	16.0	
19	.0	.0	1.0	3.0	3.0	1.0	.0	.0	.0	2.0	5.0	6.0	8.0	8.0	9.0	8.0	9.0	8.0	7.0	5.0	5.0	11.0	12.0	12.0	5.1	12.0	
20	13.0	10.0	9.0	5.0	5.0	4.0	3.0	.0	.0	2.0	4.0	4.0	4.0	6.0	6.0	6.0	7.0	7.0	6.0	6.0	8.0	9.0	11.0	8.0	6.0	13.0	
21	6.0	6.0	5.0	4.0	4.0	3.0	2.0	1.0	.0	1.0	3.0	3.0	4.0	6.0	7.0	9.0	8.0	7.0	4.0	4.0	5.0	3.0	5.0	7.0	4.5	9.0	
22	6.0	7.0	9.0	7.0	4.0	.0	.0	.0	.0	1.0	2.0	3.0	4.0	4.0	6.0	6.0	7.0	5.0	2.0	1.0	2.0	2.0	2.0	3.0	3.5	9.0	
23	4.0	6.0	9.0	8.0	9.0	7.0	5.0	2.0	1.0	4.0	6.0	7.0	7.0	7.0	8.0	10.0	11.0	10.0	8.0	11.0	11.0	12.0	10.0	9.0	7.6	12.0	
24	9.0	11.0	11.0	12.0	10.0	12.0	10.0	10.0	9.0	10.0	8.0	7.0	9.0	9.0	8.0	5.0	7.0	11.0	11.0	10.0	9.0	9.0	9.0	10.0	9.4	12.0	
25	9.0	9.0	10.0	10.0	12.0	12.0	12.0	9.0	7.0	9.0	11.0	11.0	13.0	17.0	17.0	17.0	18.0	16.0	15.0	14.0	15.0	17.0	17.0	17.0	13.1	18.0	
26	16.0	15.0	16.0	14.0	11.0	11.0	10.0	7.0	12.0	12.0	13.0	14.0	14.0	16.0	16.0	17.0	16.0	15.0	12.0	13.0	11.0	11.0	11.0	10.0	13.0	17.0	
27	11.0	11.0	11.0	12.0	13.0	12.0	10.0	6.0	7.0	10.0	9.0	9.0	10.0	11.0	11.0	12.0	12.0	12.0	12.0	12.0	11.0	14.0	12.0	10.0	10.8	14.0	
28	8.0	10.0	11.0	10.0	10.0	10.0	10.0	8.0	9.0	7.0	9.0	11.0	11.0	12.0	13.0	13.0	13.0	12.0	12.0	11.0	8.0	4.0	5.0	6.0	9.7	13.0	
29	8.0	8.0	5.0	4.0	6.0	6.0	6.0	5.0	2.0	4.0	6.0	6.0	4.0	9.0	11.0	9.0	10.0	9.0	8.0	9.0	11.0	14.0	12.0	11.0	7.6	14.0	
30	12.0	13.0	10.0	10.0	11.0	9.0	9.0	8.0	9.0	11.0	9.0	11.0	13.0	12.0	13.0	14.0	12.0	12.0	12.0	11.0	11.0	11.0	8.0	8.0	10.8	14.0	
31	6.0	6.0	8.0	7.0	5.0	1.0	2.0	2.0	1.0	2.0	2.0	4.0	5.0	6.0	6.0	6.0	7.0	6.0	3.0	4.0	3.0	2.0	3.0	3.0	4.2	8.0	
AV	6.9	6.5	6.5	5.9	5.6	5.0	4.8	4.3	4.5	5.6	6.7	7.2	7.5	8.4	8.5	8.4	8.4	8.3	7.5	7.2	7.0	7.2	7.3	7.1	6.8	[ ]	
SD	4.3	4.4	4.6	4.4	4.6	4.7	4.1	3.4	3.7	3.7	3.2	3.0	3.1	3.1	3.4	4.0	4.1	3.9	4.1	4.3	4.4	5.0	4.8	4.1	3.2	[ ]	

B-42

WIND SPEED (00:01)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHA PT MTS, CA.
SITE 6

SEP, 1979

AEROVIRONMENT INC.

*****
*
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*
*****
*
* SUBJECT TO *
* REVISION *
*
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK	
1	1.0	1.0	2.0	3.0	3.0	2.0	3.0	1.0	2.0	3.0	2.0	4.0	5.0	6.0	9.0	9.0	8.0	8.0	7.0	8.0	9.0	6.0	8.0	8.0	4.8	9.0	
2	8.0	9.0	7.0	5.0	5.0	4.0	4.0	5.0	7.0	6.0	7.0	9.0	10.0	10.0	10.0	11.0	10.0	10.0	8.0	6.0	5.0	4.0	4.0	4.0	7.0	11.0	
3	4.0	7.0	7.0	8.0	9.0	8.0	6.0	5.0	6.0	8.0	6.0	7.0	7.0	9.0	8.0	8.0	8.0	10.0	9.0	10.0	12.0	10.0	10.0	10.0	8.0	12.0	
4	12.0	13.0	13.0	11.0	12.0	13.0	10.0	10.0	11.0	8.0	9.0	8.0	7.0	8.0	8.0	7.0	8.0	8.0	7.0	6.0	7.0	6.0	6.0	7.0	9.0	13.0	
5	8.0	8.0	6.0	4.0	3.0	2.0	3.0	2.0	1.0	2.0	2.0	3.0	3.0	5.0	6.0	6.0	6.0	5.0	3.0	4.0	3.0	4.0	3.0	4.0	4.0	8.0	
6	2.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0	3.0	3.0	5.0	5.0	5.0	5.0	4.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	5.0	
7	2.0	2.0	1.0	1.0	1.0	1.0	4.0	4.0	6.0	6.0	7.0	9.0	11.0	10.0	10.0	7.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
8	7.0	4.0	4.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0	3.0	4.0	4.0	6.0	5.0	6.0	6.0	4.0	5.0	3.0	4.0	4.0	4.0	3.5	7.0	
9	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	4.0	3.0	3.0	3.0	1.0	2.0	2.0	2.0	5.0	4.0	1.8	5.0	
10	4.0	1.0	1.0	2.0	2.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	1.0	2.0	3.0	4.0	4.0	2.0	2.0	1.0	2.0	3.0	3.0	4.0	1.6	4.0	
11	5.0	3.0	3.0	4.0	1.0	2.0	1.0	1.0	2.0	1.0	2.0	4.0	4.0	6.0	5.0	7.0	6.0	6.0	4.0	2.0	4.0	3.0	2.0	2.0	3.3	7.0	
12	4.0	5.0	3.0	4.0	3.0	1.0	1.0	1.0	2.0	2.0	3.0	6.0	7.0	7.0	7.0	7.0	7.0	5.0	4.0	3.0	3.0	4.0	4.0	5.0	3.8	7.0	
13	4.0	4.0	5.0	3.0	4.0	5.0	4.0	2.0	1.0	5.0	7.0	7.0	7.0	9.0	9.0	9.0	8.0	7.0	6.0	5.0	8.0	9.0	8.0	6.0	5.9	9.0	
14	7.0	8.0	7.0	6.0	7.0	5.0	4.0	3.0	3.0	3.0	5.0	5.0	7.0	7.0	8.0	8.0	9.0	6.0	6.0	6.0	5.0	5.0	3.0	3.0	5.7	9.0	
15	2.0	2.0	2.0	1.0	2.0	2.0	2.0	10.0	13.0	14.0	13.0	12.0	12.0	9.0	8.0	3.0	4.0	4.0	1.0	2.0	2.0	2.0	2.0	2.0	4.7	14.0	
16	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	4.0	1.0	4.0	7.0	7.0	9.0	9.0	6.0	6.0	6.0	5.0	5.0	4.0	3.4	9.0	
17	6.0	5.0	4.0	3.0	2.0	2.0	2.0	3.0	2.0	6.0	7.0	7.0	7.0	8.0	8.0	11.0	10.0	9.0	6.0	6.0	7.0	10.0	9.0	8.0	6.2	11.0	
18	9.0	10.0	9.0	5.0	6.0	6.0	5.0	4.0	5.0	6.0	5.0	4.0	7.0	10.0	12.0	11.0	11.0	10.0	9.0	9.0	9.0	10.0	10.0	9.0	8.0	12.0	
19	9.0	9.0	7.0	7.0	7.0	5.0	5.0	4.0	4.0	5.0	6.0	7.0	8.0	10.0	9.0	8.0	6.0	5.0	4.0	4.0	4.0	5.0	5.0	5.0	6.2	10.0	
20	5.0	3.0	4.0	2.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	4.0	3.0	4.0	4.0	4.0	3.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	1.8	5.0	
21	2.0	2.0	2.0	2.0	1.0	6.0	6.0	9.0	7.0	8.0	9.0	9.0	10.0	9.0	5.0	4.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.8	10.0	
22	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	4.0	7.0	10.0	8.0	8.0	11.0	9.0	7.0	5.0	1.0	3.0	7.0	3.0	2.0	2.0	3.6	11.0	
23	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	7.0	10.0	13.0	11.0	13.0	12.0	9.0	8.0	9.0	11.0	6.0	1.0	1.0	5.0	5.2	13.0	
24	4.0	8.0	8.0	10.0	10.0	13.0	14.0	13.0	13.0	11.0	15.0	16.0	16.0	16.0	18.0	18.0	19.0	21.0	20.0	12.0	(IM)	(IM)	(IM)	(IM)	14.0	21.0	
25	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)
26	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)
27	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)
28	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)
29	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)
30	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)
AV	4.3	4.4	3.8	3.3	3.3	3.3	3.2	3.3	3.6	4.6	5.4	6.1	6.9	7.6	8.0	7.7	7.1	6.2	5.1	5.1	4.9	4.2	4.1	4.3	5.0	(IM)	
SD	3.3	3.7	3.5	3.2	3.4	3.7	3.4	3.7	4.0	3.4	3.7	3.8	3.6	3.0	3.3	3.3	3.4	3.8	4.3	4.3	3.4	3.1	3.1	2.9	2.7	(IM)	

B-43
AQUIT [11 MAY 79]

WIND SPEED (00101)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

RATTELL WIND STUDY, #505
TFHACHAPI MTNS, CA.
SITE 6

OCT. 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	( )	( )
2	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	13.7	15.0	16.9	15.1	13.8	12.9	11.4	9.4	3.4	3.1	1.5	1.8	.4	1.2	.8	8.0	16.9
3	.7	1.0	.2	.6	1.1	3.0	1.3	.5	2.7	5.6	9.2	9.4	7.5	3.9	3.3	5.0	8.6	6.1	3.1	1.4	.3	.8	2.8	1.7	3.3	9.0
4	3.1	.2	1.6	.5	.4	1.0	3.6	4.3	3.8	3.3	6.9	6.4	6.5	5.4	2.3	2.0	1.5	1.4	1.1	1.8	1.6	2.8	2.6	3.1	2.8	6.9
5	3.8	3.6	3.2	2.8	2.3	3.8	2.0	1.7	.2	.7	2.0	2.9	3.6	6.1	7.8	8.1	7.2	6.8	6.1	4.9	3.5	4.7	5.7	5.9	4.1	8.1
6	5.6	5.8	5.5	5.2	4.7	5.5	4.7	3.2	1.6	1.7	2.6	4.0	5.8	6.7	8.1	8.2	7.9	5.6	5.2	4.6	4.9	3.3	6.8	6.9	5.2	8.2
7	7.2	5.4	4.8	5.0	6.3	4.3	5.6	5.0	2.8	2.0	3.7	4.0	3.8	3.4	5.0	9.0	10.4	8.4	7.5	9.6	9.5	11.1	13.9	13.9	6.7	13.9
8	12.9	10.0	11.5	8.4	11.0	8.7	8.6	7.5	6.5	5.8	2.7	4.1	4.9	7.7	6.6	6.7	6.6	3.9	.9	.3	.5	.7	.7	.7	5.7	12.9
9	.6	1.8	2.1	4.2	2.7	1.7	2.0	.6	2.5	8.2	12.8	16.5	16.2	15.6	12.6	11.3	10.1	8.1	5.5	1.1	1.8	.4	3.7	1.7	5.9	18.5
10	.8	.5	.3	.2	.8	.6	.4	.6	2.5	7.6	13.4	17.0	15.6	11.8	10.2	8.3	9.4	1.0	.3	.4	1.6	1.5	.5	.9	8.3	17.0
11	.4	2.0	1.1	2.4	1.7	2.6	1.3	.3	.0	.1	.4	.8	2.2	3.4	4.7	6.8	7.5	7.4	7.1	7.9	6.8	7.7	6.8	4.7	3.7	7.9
12	8.6	7.8	8.6	6.3	5.2	4.9	4.7	4.2	2.9	4.3	4.3	4.8	5.8	7.0	7.2	6.9	6.5	4.3	4.0	6.3	9.7	5.8	5.9	4.9	5.7	4.6
13	4.1	3.6	3.1	1.7	2.5	4.0	2.3	2.0	1.2	1.5	2.8	4.1	6.8	7.4	9.8	11.4	9.6	6.0	3.6	3.3	1.7	2.2	1.5	7.7	4.4	11.4
14	9.3	4.8	2.6	4.2	5.9	6.0	4.4	5.1	6.3	5.0	5.0	5.5	6.5	8.7	8.8	8.9	7.7	6.1	6.3	8.2	7.8	7.8	5.8	8.8	6.4	9.3
15	5.9	5.4	8.2	10.4	12.4	13.0	12.8	12.4	11.9	10.3	7.5	3.0	5.1	4.6	6.4	11.9	9.9	9.1	8.0	7.1	7.9	8.3	8.6	9.7	8.7	13.0
16	8.5	8.2	10.1	10.1	10.8	12.0	10.1	7.9	6.3	5.9	6.2	8.2	6.8	8.4	7.2	6.6	8.3	9.6	11.1	10.9	10.3	13.8	9.8	11.7	9.0	19.0
17	10.5	9.0	10.6	10.1	8.6	5.9	7.3	6.0	5.3	5.8	7.8	8.7	9.7	9.7	12.4	11.5	12.2	14.0	13.4	12.6	12.0	11.5	9.9	10.9	9.8	14.6
18	18.8	11.6	12.0	13.6	13.2	12.7	13.1	9.8	9.0	7.3	7.8	7.7	10.8	11.1	12.6	14.2	14.9	14.9	15.5	13.0	9.5	9.8	11.5	10.9	11.6	15.5
19	10.4	12.6	14.7	9.1	9.6	12.5	13.7	11.5	11.1	12.1	12.4	14.5	17.8	18.8	14.9	14.0	12.4	18.6	17.9	13.4	10.9	10.1	9.1	8.0	12.5	47.9
20	2.7	1.4	3.0	1.9	1.8	3.6	2.7	12.1	16.5	16.1	18.9	17.5	18.3	20.3	20.4	18.8	19.6	20.9	23.9	22.7	21.8	21.8	21.9	22.3	18.5	22.7
21	24.8	25.2	26.5	24.9	23.9	20.5	14.0	9.5	13.1	11.1	4.5	2.0	2.5	2.3	2.3	2.1	7.8	9.3	9.1	8.7	4.9	6.4	5.5	8.5	11.1	26.5
22	1.0	1.2	2.8	6.8	9.2	11.0	11.4	13.5	13.1	13.3	14.3	14.8	12.1	9.3	8.8	7.8	7.3	5.0	5.5	6.0	2.7	3.7	11.6	9.2	8.8	14.8
23	.6	2.8	6.7	4.9	4.2	2.3	10.9	13.3	13.4	12.6	15.2	18.8	17.6	15.3	12.3	9.6	6.1	3.7	8.0	7.2	9.0	8.1	4.5	3.3	8.6	14.8
24	2.2	4.7	9.8	8.3	8.9	9.5	5.6	3.3	1.9	5.3	7.0	12.5	12.1	7.4	8.1	3.1	1.8	3.7	4.5	4.4	6.6	8.8	9.9	8.6	6.6	12.5
25	8.2	8.8	9.9	10.5	9.6	9.8	12.4	14.0	9.8	3.7	5.6	8.4	7.3	3.9	3.1	4.1	8.6	11.0	13.7	11.0	10.0	8.4	13.5	12.3	9.0	14.0
26	12.7	15.4	19.7	19.1	19.6	21.1	20.0	17.8	12.2	9.9	7.0	6.1	5.4	4.2	3.0	4.1	5.5	5.2	5.2	5.8	6.7	7.9	7.1	7.5	10.3	21.1
27	7.3	7.4	5.8	5.9	2.8	2.2	.5	.7	.3	.7	1.0	.3	1.1	3.1	3.8	8.7	5.2	4.4	8.4	10.8	10.7	12.0	10.6	11.3	5.2	12.0
28	12.2	13.2	12.2	14.4	15.9	16.1	19.4	20.7	20.9	20.5	21.0	20.4	21.8	20.7	22.0	26.2	26.4	27.9	29.7	35.7	35.0	34.5	32.7	34.3	23.1	35.7
29	31.3	29.7	26.9	25.0	22.7	21.5	20.6	18.6	10.3	8.8	8.7	10.3	11.6	15.2	15.3	14.3	17.5	18.7	16.1	12.9	9.2	9.7	8.8	3.3	16.0	31.3
30	3.4	1.9	3.0	.7	.8	2.2	5.2	10.7	6.3	2.2	1.2	4.1	5.8	6.5	8.7	13.2	11.1	12.5	10.5	13.0	15.0	14.6	12.7	14.6	7.5	15.0
31	15.2	14.3	13.6	15.5	16.2	15.9	17.2	17.2	17.0	15.9	15.5	11.6	12.4	14.1	14.9	15.3	14.8	12.9	12.2	12.1	11.2	11.1	9.7	3.0	13.7	17.2
AV	7.8	7.5	8.2	8.0	8.1	8.2	8.2	7.9	7.3	7.4	8.1	8.8	9.3	9.1	9.2	9.7	9.5	8.9	8.7	8.6	8.0	8.3	8.4	8.3	8.4	( )
SD	7.0	6.9	6.9	6.6	6.6	6.2	6.1	5.8	5.6	5.2	5.5	5.8	5.4	5.0	5.0	5.1	5.1	6.0	6.5	7.1	6.9	6.8	6.5	6.8	4.3	( )

B-4A

WIND SPEED (00:01)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHAPI MTS., CA.
SITE 6

NOV. 1979

AEROVIRONMENT INC.

*****
*
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*
*****
*
* SUBJECT TO *
* REVISION *
*
*****

CLOCK HOUR (LOCAL STANDARD TIME)

B-45

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	4.5	1.7	2.9	2.0	.9	.8	.8	4.0	3.8	2.7	6.8	13.1	12.0	11.8	10.1	6.8	2.8	1.7	.8	.9	1.0	.5	.8	1.9	4.0	13.1
2	6.3	7.7	7.5	8.4	12.9	6.6	8.8	12.3	14.6	15.5	15.4	15.6	15.2	14.8	11.4	8.2	5.1	1.4	1.1	1.3	2.8	3.1	.8	.7	8.2	15.6
3	.9	1.1	5.4	2.1	1.3	3.1	3.8	1.4	1.9	6.0	10.6	12.3	4.1	7.5	7.2	9.1	3.9	3.8	10.7	7.1	10.9	9.6	12.5	12.8	6.2	12.8
4	11.2	16.4	19.1	21.1	21.6	19.6	18.5	16.2	14.3	14.0	15.0	15.5	14.9	15.1	14.8	15.4	15.7	14.8	13.2	12.2	10.7	11.1	12.4	12.2	15.2	21.6
5	14.0	12.2	6.4	6.5	5.4	3.0	1.8	.6	6.8	14.4	18.2	18.2	18.7	19.3	19.0	15.9	14.7	13.3	11.9	5.7	3.5	4.6	3.9	6.5	10.2	19.3
6	5.2	6.3	10.6	11.4	15.8	12.6	16.4	16.3	17.8	15.3	11.2	13.2	12.6	12.4	11.4	13.6	14.8	13.9	10.9	12.9	12.8	8.8	11.6	15.8	12.7	17.8
7	17.6	18.4	20.2	17.7	14.2	12.8	16.5	21.0	19.6	18.8	16.0	18.9	21.3	21.9	27.8	27.2	22.9	30.6	15.6	17.7	12.9	12.5	12.6	9.2	18.5	30.6
8	9.7	7.6	3.0	.6	1.9	3.5	3.6	6.3	8.3	7.9	9.3	10.4	9.8	12.7	10.7	11.7	11.3	10.9	11.0	13.2	12.1	9.4	9.2	10.4	8.5	13.2
9	11.2	10.7	9.8	10.1	11.3	11.2	9.5	10.3	8.3	7.4	7.3	11.2	10.6	13.4	15.1	16.1	16.3	15.4	14.8	15.5	16.5	13.3	8.4	5.1	11.6	16.5
10	6.3	5.6	3.3	1.9	3.0	1.3	.8	1.1	11.0	12.3	17.6	17.7	14.8	12.0	4.9	4.1	3.2	1.4	.8	1.1	2.4	2.7	1.2	1.0	5.5	17.7
11	.9	1.3	1.8	1.7	3.0	4.7	4.1	2.5	2.3	2.8	1.8	1.2	1.6	2.0	1.6	1.1	1.2	3.4	3.8	5.5	9.3	8.6	10.1	11.0	3.6	11.0
12	9.7	9.1	13.1	11.6	9.3	9.1	9.7	10.9	12.8	15.2	18.2	20.0	19.6	19.9	20.0	19.3	16.8	15.1	14.1	11.7	11.7	12.9	14.8	15.3	14.2	20.0
13	15.3	16.7	16.7	14.8	15.5	14.8	14.9	15.3	14.5	15.3	18.9	19.1	17.7	17.8	17.3	14.8	15.6	11.6	12.2	12.8	12.2	11.4	12.3	10.5	14.9	19.1
14	8.9	10.4	12.1	11.9	14.1	14.0	15.3	16.9	18.7	20.6	22.7	22.7	22.8	21.7	18.5	17.7	18.3	16.6	15.9	14.2	12.9	14.9	14.5	15.7	16.3	22.8
15	15.9	14.2	12.1	11.4	12.2	11.6	13.8	14.1	14.4	17.2	20.1	21.1	20.7	19.2	17.0	15.7	14.8	13.7	11.5	11.0	12.2	11.6	10.5	10.2	14.4	21.1
16	9.8	9.5	12.1	11.4	10.3	11.3	13.9	14.0	17.6	19.4	19.4	18.1	13.9	13.2	11.4	10.7	8.7	8.8	5.8	6.3	8.0	4.3	2.6	10.4	11.3	19.4
17	11.4	10.5	12.9	8.1	2.9	2.3	5.0	5.2	9.1	10.8	15.0	18.0	15.0	16.6	15.4	16.7	18.3	20.2	19.5	21.2	23.4	22.9	23.7	20.1	14.3	23.7
18	20.6	20.0	18.4	20.8	20.4	22.5	21.1	19.3	17.7	16.3	16.7	18.4	16.2	15.3	16.1	16.9	19.2	21.3	23.4	25.6	25.5	25.6	25.2	26.1	20.4	26.1
19	20.2	20.0	19.7	15.2	11.5	14.1	11.5	10.5	11.7	8.2	9.4	9.1	12.5	16.0	14.6	13.8	11.8	10.7	10.1	9.3	11.3	11.1	8.4	7.6	12.4	20.2
20	4.1	4.5	3.7	1.1	2.5	1.5	1.0	1.7	1.2	1.0	.8	1.8	2.1	2.1	3.1	3.0	3.5	2.6	.9	4.3	1.5	.0	.2	8.5	2.4	8.5
21	10.6	12.6	14.4	19.8	21.5	21.8	20.7	21.1	21.6	20.0	18.8	17.4	16.8	15.7	13.6	11.8	9.4	5.6	8.1	9.3	9.1	9.3	9.6	10.0	14.5	21.8
22	10.0	11.3	11.8	10.6	11.2	12.6	14.5	15.2	16.1	16.4	14.1	10.2	4.1	1.8	3.3	4.8	3.4	4.3	5.2	7.9	6.8	5.5	11.2	15.0	9.5	16.4
23	18.1	19.8	21.0	22.0	21.9	19.0	19.1	19.0	20.0	21.2	18.2	17.4	20.0	21.1	19.1	16.0	14.3	20.0	20.4	12.7	6.9	6.1	5.1	6.0	16.9	22.0
24	9.0	8.2	9.8	11.9	12.3	18.4	16.4	17.5	21.5	22.8	25.0	24.2	22.8	24.9	25.8	26.8	26.4	26.9	27.8	27.9	27.1	25.6	21.5	18.4	20.8	27.9
25	14.7	13.5	16.4	15.8	17.7	20.5	19.8	18.1	17.2	17.3	13.4	12.5	13.1	10.2	12.4	9.8	9.2	10.2	13.9	15.0	14.1	17.7	15.1	14.6	14.7	20.5
26	21.1	21.8	24.5	24.8	23.8	24.9	24.2	23.4	26.1	27.6	26.0	25.5	25.2	26.5	29.1	27.3	23.5	20.2	19.4	19.7	17.9	14.8	15.2	13.9	22.8	29.1
27	13.1	5.8	1.5	1.4	.3	1.4	9.9	12.2	15.8	18.6	19.7	22.2	19.5	17.8	16.6	15.7	14.9	14.0	15.9	16.6	19.7	21.3	22.8	22.4	14.1	22.8
28	21.9	20.4	21.7	24.1	24.2	23.9	23.8	25.8	25.6	29.0	30.6	29.5	23.4	17.2	14.4	11.8	12.9	13.8	16.0	16.8	17.9	21.9	21.2	19.7	21.1	30.6
29	17.7	16.8	15.0	13.0	12.7	12.2	13.2	14.3	14.3	14.7	13.4	12.9	13.0	10.4	6.4	4.6	1.8	2.8	3.3	1.7	.3	.2	.7	1.3	9.0	17.7
30	4.2	1.9	3.1	2.4	3.2	1.6	2.4	6.8	9.2	8.0	8.4	3.9	1.3	1.6	2.6	6.3	6.2	5.7	5.4	8.4	9.3	5.1	11.5	2.8	5.1	11.5
AV	11.5	11.2	11.7	11.2	11.3	11.2	11.8	12.4	13.8	14.6	15.3	15.7	14.5	14.4	13.7	13.1	12.0	11.8	11.4	11.5	11.4	10.9	11.0	11.2	12.4	( )
SD	5.9	6.1	6.6	7.3	7.4	7.6	7.2	7.0	6.5	6.8	6.6	6.5	6.6	6.5	7.0	6.7	6.8	7.6	6.9	6.8	6.8	7.2	7.0	6.4	5.4	( )

ADOUT (11 MAY 79)

WIND SPEED (001011)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTELIE WIND STUDY.#505
TFHACHAPI MTNS, CA.
SITE 6
DEC. 1979
AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	6.9	9.2	11.9	12.7	10.8	14.1	15.4	16.4	16.8	17.3	17.6	19.6	18.6	20.3	18.4	16.4	16.5	13.0	11.5	9.1	11.2	10.1	9.3	11.2	13.9	20.3
2	15.2	12.6	9.5	11.5	12.6	10.2	6.4	5.8	2.7	1.8	3.0	2.3	1.3	2.2	3.0	2.7	1.6	1.7	3.2	6.6	5.9	4.7	5.5	11.0	6.0	15.2
3	12.7	13.0	12.8	14.1	14.7	15.3	15.5	15.3	15.5	16.2	17.9	17.5	17.7	17.3	16.6	15.7	14.5	15.8	13.6	14.8	14.4	16.9	17.6	15.8	15.5	17.9
4	15.8	13.7	12.9	11.6	10.4	8.7	9.0	8.9	7.9	8.6	7.4	2.3	2.1	1.3	1.8	5.5	9.3	7.8	8.8	10.8	10.4	10.6	15.7	16.8	9.1	16.8
5	17.5	19.4	19.1	16.2	14.7	16.4	15.3	11.9	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	16.3	19.4
6	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
7	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
8	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
9	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
10	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
11	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
12	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
13	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
14	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
15	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
16	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
17	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
18	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
19	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
20	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
21	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
22	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
23	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
24	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
25	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
26	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
27	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
28	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
29	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
30	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
31	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
AV	13.6	13.6	13.2	13.2	12.6	12.9	12.3	11.7	10.7	11.0	11.5	10.4	9.9	10.3	10.0	10.1	10.5	9.6	9.3	10.3	10.5	10.6	12.0	13.7	12.2	( )
SD	3.7	3.3	3.2	1.8	1.8	3.0	3.9	3.9	5.7	6.3	6.5	8.2	8.2	8.6	7.6	6.1	5.8	5.4	3.9	3.0	3.0	4.3	4.9	2.6	4.0	( )

B-46

WIND SPEED (00:01)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

RATTELLE WIND STUDY.#505
TEWACHAPI MTNS, CA.
SITE 7

JUL. 1979.

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
2	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
3	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
4	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
5	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
6	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
7	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
8	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
9	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
10	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
11	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
12	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
13	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
14	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
15	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
16	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
17	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
18	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
19	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
20	7.0	13.0	14.0	15.0	14.0	11.0	11.0	10.0	9.0	9.0	10.0	9.0	9.0	9.0	5.0	7.0	4.0	7.0	9.0	8.0	7.0	8.0	7.0	6.0	9.1	15.0
21	4.0	4.0	4.0	7.0	5.0	8.0	8.0	8.0	5.0	8.0	8.0	6.0	7.0	12.0	14.0	16.0	16.0	17.0	19.0	21.0	19.0	11.0	9.0	6.0	10.1	21.0
22	12.0	12.0	10.0	8.0	10.0	13.0	10.0	11.0	13.0	14.0	16.0	16.0	17.0	17.0	17.0	19.0	18.0	16.0	16.0	16.0	16.0	16.0	15.0	15.0	14.3	19.0
23	16.0	16.0	17.0	16.0	16.0	16.0	15.0	15.0	14.0	13.0	13.0	15.0	15.0	16.0	16.0	17.0	17.0	17.0	17.0	22.0	25.0	21.0	18.0	21.0	16.8	25.0
24	22.0	20.0	19.0	19.0	18.0	15.0	13.0	12.0	9.0	10.0	11.0	12.0	12.0	13.0	12.0	13.0	13.0	14.0	14.0	13.0	11.0	10.0	10.0	11.0	13.6	22.0
25	12.0	12.0	12.0	12.0	12.0	12.0	11.0	9.0	8.0	8.0	9.0	9.0	9.0	11.0	12.0	12.0	12.0	12.0	9.0	6.0	5.0	5.0	5.0	5.0	9.5	12.0
26	6.0	8.0	7.0	9.0	5.0	4.0	3.0	3.0	1.0	0	3.0	3.0	3.0	5.0	6.0	7.0	9.0	10.0	12.0	15.0	17.0	17.0	17.0	20.0	7.9	20.0
27	24.0	21.0	17.0	14.0	15.0	16.0	17.0	15.0	15.0	14.0	15.0	15.0	16.0	16.0	18.0	21.0	23.0	21.0	23.0	24.0	24.0	22.0	20.0	18.0	18.6	26.0
28	17.0	18.0	15.0	15.0	13.0	12.0	12.0	12.0	13.0	15.0	16.0	16.0	16.0	16.0	17.0	17.0	17.0	18.0	19.0	19.0	18.0	18.0	18.0	17.0	16.0	19.0
29	17.0	15.0	15.0	13.0	14.0	15.0	15.0	15.0	15.0	14.0	13.0	10.0	10.0	8.0	8.0	9.0	11.0	14.0	16.0	15.0	14.0	12.0	12.0	12.0	13.0	17.0
30	13.0	11.0	9.0	9.0	8.0	4.0	3.0	0	3.0	3.0	5.0	5.0	5.0	6.0	4.0	3.0	2.0	3.0	2.0	0	0	4.0	5.0	5.0	4.7	13.0
31	4.0	6.0	5.0	5.0	5.0	3.0	1.0	2.0	3.0	1.0	2.0	2.0	6.0	11.0	12.0	15.0	16.0	17.0	16.0	15.0	14.0	14.0	15.0	12.0	8.4	17.0
AV	12.8	13.0	12.0	11.8	11.3	10.8	9.9	9.3	9.0	9.1	10.1	9.8	10.4	11.7	11.7	12.7	13.1	13.4	13.7	14.0	13.8	12.8	12.3	11.8	11.6	( )
SD	6.4	5.1	4.8	4.0	4.4	4.6	5.0	5.0	4.8	5.1	4.6	4.8	4.6	3.8	4.6	4.9	5.6	5.2	5.6	6.7	7.3	5.5	5.0	5.8	3.9	( )

WIND SPEED (00011)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTLE WIND STUDY, #505
TEHACHAPI MTS, CA.
SITE 7

AUG, 1979

AEROVIRONMENT INC.

*****
*
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*
*****
*
* SUBJECT TO *
* REVISION *
*
*****

CLOCK HOUR (LOCAL STANDARD TIME)

B-48

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	13.0	14.0	14.0	13.0	11.0	12.0	12.0	14.0	12.0	13.0	13.0	16.0	16.0	18.0	20.0	22.0	24.0	25.0	23.0	22.0	22.0	21.0	21.0	21.0	17.2	25.0
2	23.0	19.0	16.0	14.0	13.0	13.0	13.0	14.0	14.0	13.0	14.0	15.0	15.0	14.0	16.0	18.0	18.0	18.0	18.0	18.0	15.0	13.0	13.0	15.0	15.5	23.0
3	16.0	16.0	15.0	15.0	14.0	14.0	14.0	13.0	12.0	11.0	10.0	10.0	10.0	12.0	12.0	12.0	12.0	14.0	14.0	14.0	14.0	13.0	14.0	14.0	13.1	16.0
4	12.0	13.0	13.0	13.0	12.0	12.0	11.0	11.0	10.0	10.0	11.0	12.0	13.0	14.0	15.0	15.0	16.0	16.0	15.0	14.0	14.0	15.0	17.0	13.0	13.2	17.0
5	12.0	11.0	9.0	9.0	8.0	6.0	5.0	5.0	6.0	5.0	5.0	5.0	7.0	8.0	12.0	12.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	14.0	9.6	14.0
6	14.0	14.0	14.0	10.0	7.0	6.0	6.0	7.0	5.0	5.0	5.0	7.0	7.0	8.0	10.0	12.0	13.0	14.0	15.0	13.0	9.0	8.0	8.0	8.0	9.4	15.0
7	7.0	8.0	7.0	6.0	6.0	6.0	4.0	3.0	1.0	1.0	2.0	3.0	3.0	4.0	3.0	5.0	7.0	9.0	9.0	8.0	6.0	9.0	10.0	8.0	5.6	10.0
8	8.0	9.0	8.0	6.0	4.0	4.0	3.0	4.0	4.0	5.0	7.0	9.0	10.0	11.0	11.0	10.0	10.0	11.0	9.0	10.0	10.0	10.0	10.0	9.0	8.0	11.0
9	9.0	10.0	8.0	9.0	9.0	9.0	8.0	6.0	5.0	3.0	3.0	3.0	3.0	3.0	5.0	7.0	7.0	5.0	4.0	4.0	3.0	4.0	3.0	2.0	5.5	10.0
10	.0	2.0	2.0	2.0	1.0	1.0	1.0	2.0	2.0	2.0	3.0	3.0	3.0	5.0	4.0	4.0	6.0	7.0	8.0	4.0	3.0	2.0	2.0	1.0	2.9	8.0
11	3.0	5.0	4.0	5.0	3.0	1.0	2.0	2.0	4.0	5.0	5.0	6.0	10.0	10.0	9.0	10.0	9.0	9.0	9.0	10.0	10.0	6.0	5.0	2.0	6.0	10.0
12	3.0	6.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	5.0	4.0	5.0	3.0	5.0	12.0	7.0	3.0	5.0	8.0	12.0	11.0	16.0	17.0	11.0	6.2	17.0
13	12.0	12.0	11.0	10.0	10.0	8.0	11.0	10.0	7.0	6.0	7.0	11.0	11.0	12.0	12.0	19.0	23.0	22.0	18.0	19.0	18.0	17.0	17.0	17.0	13.3	23.0
14	17.0	17.0	17.0	14.0	12.0	12.0	12.0	10.0	5.0	5.0	5.0	11.0	13.0	15.0	16.0	17.0	20.0	18.0	16.0	16.0	15.0	15.0	15.0	14.0	13.6	20.0
15	14.0	16.0	16.0	14.0	14.0	12.0	8.0	6.0	6.0	7.0	8.0	4.5	5.5	4.5	7.5	7.5	5.5	4.5	4.5	7.0	5.0	3.5	4.0	3.5	7.8	16.0
16	3.5	4.5	4.0	2.5	3.5	3.0	3.0	4.0	5.5	7.0	9.0	11.0	13.0	11.0	8.0	9.0	6.5	7.5	2.5	2.5	4.0	3.5	5.5	7.5	5.9	13.0
17	6.5	5.0	3.0	2.0	1.5	2.5	3.0	2.5	4.5	6.0	6.5	6.0	5.5	3.5	3.5	3.5	3.5	2.5	2.0	2.5	3.5	6.0	6.5	9.0	4.2	9.0
18	7.0	6.5	7.0	6.5	5.5	3.0	1.5	2.0	4.5	6.5	6.5	5.0	4.5	12.0	10.0	11.0	10.0	6.5	7.5	4.5	6.5	7.0	4.5	3.5	6.2	12.0
19	4.0	6.0	9.0	8.0	7.0	7.5	6.5	5.0	5.5	6.0	7.5	9.5	10.0	11.5	11.0	9.0	9.5	10.0	8.0	6.5	11.0	20.0	18.0	15.5	9.2	20.0
20	13.0	12.5	12.5	11.5	11.0	8.0	5.5	3.0	1.5	3.0	4.0	5.5	5.5	6.0	5.5	7.0	7.5	10.5	13.0	14.5	14.5	17.0	16.0	15.0	9.3	17.0
21	13.5	10.5	8.0	8.5	6.5	3.5	2.5	2.5	1.5	2.0	3.0	5.0	7.5	8.5	10.5	12.5	11.5	9.5	9.0	8.5	8.5	9.5	11.0	12.5	7.8	13.5
22	13.0	15.0	12.0	7.0	6.5	5.5	4.5	3.0	2.0	1.5	2.5	3.5	5.0	7.5	7.0	8.0	7.0	5.5	6.0	7.0	6.0	6.0	10.5	11.0	6.8	15.0
23	12.0	14.5	15.5	17.5	13.5	8.5	3.5	5.0	4.5	7.0	7.0	8.5	11.0	13.0	13.5	16.5	15.0	15.0	16.5	19.0	17.0	17.0	17.5	17.5	12.7	19.0
24	18.5	19.0	19.0	18.5	17.5	18.0	16.5	17.5	15.5	12.0	12.5	13.5	14.0	14.0	12.5	14.5	18.0	17.5	15.0	16.0	14.5	17.0	17.5	17.5	16.1	19.0
25	19.0	18.5	20.5	21.5	21.0	20.0	19.0	17.5	15.5	14.0	16.0	19.5	3.5	3.0	3.5	3.5	3.0	2.5	1.5	1.5	2.0	1.0	2.5	3.5	10.5	21.5
26	4.0	3.0	4.0	5.0	4.0	3.5	2.5	1.0	1.5	3.0	2.5	2.5	2.5	3.5	3.5	3.5	3.0	3.5	3.0	3.0	5.0	7.5	6.5	6.5	3.6	7.5
27	5.0	4.5	4.5	3.5	3.5	2.0	2.0	3.5	3.0	3.5	3.5	4.0	3.5	4.0	4.0	4.0	4.0	2.5	3.5	2.5	2.0	2.5	2.0	2.0	3.3	5.0
28	3.5	3.0	3.5	4.5	4.0	4.0	4.0	3.0	3.0	3.5	4.0	3.0	4.0	22.0	20.0	20.0	20.0	20.0	19.0	18.0	14.0	10.0	9.0	10.0	9.5	22.0
29	10.0	14.0	15.0	10.0	13.0	13.0	13.0	11.0	9.0	9.0	11.0	14.0	12.0	15.0	16.0	16.0	17.0	17.0	16.0	17.0	17.0	21.0	21.0	21.0	14.5	21.0
30	19.0	20.0	18.0	18.0	19.0	18.0	18.0	18.0	18.0	20.0	17.0	14.0	17.0	19.0	19.0	21.0	19.0	20.0	20.0	20.0	21.0	19.0	17.0	16.0	18.5	21.0
31	15.0	13.0	14.0	16.0	14.0	11.0	9.0	8.0	6.0	3.0	3.0	5.0	5.0	8.0	8.0	9.0	10.0	11.0	10.0	9.0	11.0	11.0	9.0	7.0	9.4	16.0
AV	10.6	11.0	10.5	9.8	8.9	8.0	7.3	7.0	6.4	6.5	7.0	8.1	8.2	9.8	10.3	11.1	11.3	11.3	10.8	10.8	10.5	11.0	11.1	10.6	9.5	11
SD	5.7	5.3	5.4	5.3	5.2	5.2	5.2	5.1	4.6	4.3	4.1	4.5	4.4	5.0	5.0	5.5	6.1	6.2	5.9	6.1	5.6	5.9	5.8	5.7	4.2	11

WIND SPEED ICC:011
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTLE WIND STUDY, #505
TFHACHAPI MTS, CA.
SITE 7

SEP, 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	8.0	8.0	7.0	8.0	10.0	10.0	10.0	7.0	6.0	5.0	4.0	6.0	8.0	11.0	15.0	16.0	15.0	15.0	13.0	13.0	14.0	14.0	13.0	15.0	10.5	14.0
2	13.0	14.0	13.0	13.0	13.0	14.0	14.0	14.0	15.0	15.0	15.0	14.0	15.0	18.0	17.0	18.0	17.0	18.0	17.0	15.0	14.0	13.0	14.0	14.0	14.9	18.0
3	14.0	16.0	16.0	15.0	16.0	16.0	14.0	14.0	14.0	13.0	13.0	13.0	14.0	13.0	14.0	15.0	15.0	18.0	19.0	18.0	21.0	20.0	18.0	18.0	15.7	21.0
4	19.0	19.0	20.0	19.0	21.0	22.0	21.0	19.0	20.0	17.0	16.0	15.0	15.0	13.0	15.0	14.0	15.0	15.0	13.0	14.0	16.0	15.0	15.0	15.0	16.8	22.0
5	17.0	15.0	14.0	13.0	14.0	11.0	10.0	9.0	8.0	5.0	3.0	4.0	5.0	6.0	9.0	9.0	9.0	10.0	10.0	10.0	11.0	10.0	8.0	9.0	9.5	17.0
6	10.0	10.0	10.0	8.0	8.0	7.0	7.0	6.0	6.0	4.0	2.0	3.0	5.0	5.0	6.0	6.0	7.0	7.0	6.0	9.0	8.0	6.0	5.0	2.0	6.4	10.0
7	3.0	4.0	5.0	5.0	6.0	5.0	5.0	5.0	8.0	7.0	9.0	11.0	12.0	14.0	13.0	13.0	8.0	6.0	6.0	3.0	4.0	6.0	10.0	12.0	7.5	14.0
8	13.0	12.0	9.0	9.0	6.0	7.0	7.0	5.0	5.0	3.0	4.0	4.0	5.0	6.0	7.0	9.0	11.0	10.0	10.0	10.0	10.0	8.0	11.0	11.0	8.0	13.0
9	10.0	9.0	5.0	2.0	3.0	3.0	5.0	3.0	2.0	2.0	2.0	2.0	2.0	3.0	4.0	6.0	7.0	6.0	4.0	7.0	9.0	10.0	9.0	9.0	5.2	10.0
10	9.0	7.0	6.0	7.0	7.0	6.0	6.0	5.0	5.0	3.0	3.0	3.0	5.0	5.0	6.0	5.0	7.0	7.0	8.0	10.0	9.0	10.0	10.0	10.0	6.6	10.0
11	10.0	10.0	9.0	9.0	8.0	8.0	7.0	8.0	7.0	7.0	8.0	9.0	11.0	13.0	13.0	14.0	13.0	13.0	12.0	10.0	11.0	11.0	12.0	12.0	10.2	14.0
12	12.0	11.0	10.0	10.0	10.0	11.0	9.0	8.0	7.0	7.0	5.0	6.0	8.0	9.0	12.0	11.0	13.0	11.0	10.0	11.0	12.0	11.0	11.0	13.0	9.9	13.0
13	14.0	13.0	12.0	7.0	11.0	12.0	10.0	11.0	10.0	9.0	11.0	11.0	11.0	13.0	13.0	14.0	13.0	12.0	11.0	10.0	9.0	10.0	10.0	11.0	11.2	14.0
14	12.0	13.0	14.0	13.0	11.0	10.0	8.0	8.0	7.0	6.0	7.0	7.0	8.0	8.0	10.0	12.0	12.0	10.0	10.0	9.0	6.0	7.0	6.0	5.0	9.1	14.0
15	5.0	5.0	3.0	1.0	.0	1.0	4.0	4.0	6.0	8.0	7.0	6.0	5.0	6.0	3.0	4.0	4.0	2.0	1.0	1.0	2.0	1.0	1.0	.0	3.3	8.0
16	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	1.0	4.0	1.0	2.0	8.0	9.0	11.0	10.0	8.0	7.0	6.0	6.0	7.0	7.0	8.0	4.0	11.0
17	10.0	8.0	7.0	8.0	7.0	7.0	7.0	7.0	8.0	10.0	9.0	10.0	11.0	12.0	13.0	14.0	16.0	16.0	10.0	9.0	8.0	10.0	11.0	12.0	10.0	16.0
18	11.0	13.0	13.0	12.0	13.0	13.0	10.0	12.0	11.0	11.0	12.0	11.0	12.0	14.0	13.0	15.0	14.0	12.0	11.0	11.0	13.0	13.0	15.0	16.0	12.5	16.0
19	14.0	15.0	17.0	16.0	15.0	13.0	14.0	12.0	10.0	9.0	8.0	6.0	9.0	12.0	11.0	11.0	10.0	8.0	10.0	10.0	12.0	13.0	14.0	9.0	11.6	17.0
20	10.0	8.0	5.0	2.0	2.0	.0	1.0	2.0	4.0	4.0	7.0	8.0	6.0	4.0	.0	.0	1.0	.0	2.0	2.0	1.0	1.0	.0	.0	2.9	10.0
21	1.0	3.0	4.0	4.0	4.0	4.0	5.0	4.0	6.0	7.0	11.0	10.0	16.0	18.0	10.0	9.0	8.0	6.0	4.0	5.0	3.0	1.0	2.0	.0	6.0	18.0
22	2.0	2.0	3.0	1.0	1.0	1.0	1.0	4.0	8.0	7.0	8.0	9.0	8.0	10.0	9.0	9.0	6.0	3.0	7.0	8.0	6.0	6.0	4.0	4.0	5.5	10.0
23	6.0	2.0	1.0	2.0	.0	1.0	6.0	1.0	8.0	9.0	9.0	9.0	10.0	11.0	12.0	11.0	10.0	8.0	5.0	4.0	6.0	5.0	6.0	4.0	6.1	12.0
24	3.0	3.0	3.0	4.0	7.0	10.0	11.0	15.0	11.0	8.0	11.0	14.0	14.0	13.0	14.0	15.0	14.0	14.0	14.0	13.0	12.0	11.0	8.0	2.0	10.2	15.0
25	4.0	6.0	8.0	9.0	9.0	13.0	7.0	9.0	10.0	7.0	7.0	6.0	3.0	5.0	7.0	6.0	7.0	6.0	8.0	9.0	9.0	8.0	9.0	10.0	7.6	13.0
26	9.0	8.0	9.0	7.0	3.0	6.0	7.0	5.0	9.0	9.0	6.0	6.0	5.0	3.0	2.0	1.0	2.0	2.0	2.0	4.0	4.0	5.0	9.0	10.0	5.5	10.0
27	11.0	12.0	14.0	11.0	9.0	7.0	8.0	9.0	7.0	11.0	10.0	11.0	11.0	9.0	9.0	8.0	5.0	5.0	4.0	5.0	5.0	5.0	4.0	3.0	8.0	14.0
28	4.0	6.0	7.0	6.0	7.0	12.0	8.0	5.0	6.0	7.0	8.0	10.0	6.0	6.0	8.0	8.0	8.0	12.0	8.0	7.0	10.0	5.0	4.0	1.0	7.0	12.0
29	.0	3.0	2.0	4.0	2.0	5.0	9.0	7.0	9.0	12.0	10.0	13.0	12.0	12.0	14.0	15.0	16.0	13.0	12.0	8.0	10.0	5.0	7.0	6.0	8.6	16.0
30	6.0	6.0	7.0	5.0	6.0	3.0	.0	3.0	3.0	.0	.0	3.0	6.0	4.0	4.0	6.0	9.0	7.0	7.0	10.0	6.0	9.0	11.0	.0	5.0	11.0
AV	8.7	8.7	8.4	7.7	7.6	7.9	7.7	7.4	7.9	7.4	7.6	8.0	8.7	9.5	9.7	10.2	10.2	9.4	8.6	8.7	9.0	8.5	8.9	8.0	8.5	(1)
SD	4.9	4.7	5.0	4.8	5.1	5.2	4.4	4.4	3.8	3.9	3.8	3.8	4.0	4.2	4.2	4.5	4.1	4.6	4.3	3.8	4.3	4.3	4.3	5.3	3.4	(1)

WIND SPEED (00:01)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

RATTELLE WIND STUDY, #505
TEHACHAPI MTS, CA.
SITE 7

OCT, 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

B-50

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	6.0	3.0	1.0	1.0	3.0	1.0	5.0	6.0	8.0	7.0	6.0	10.0	12.0	12.0	9.0	14.0	14.0	10.0	7.0	10.0	12.0	13.0	11.0	8.0	7.9	14.0
2	8.0	9.0	9.0	12.0	11.0	10.0	12.0	11.0	9.0	9.0	10.4	10.3	14.4	13.2	10.5	9.1	5.2	4.4	3.1	2.2	.6	1.6	1.1	.3	7.8	14.4
3	.0	.5	1.5	2.7	2.1	1.8	1.6	3.2	4.6	8.3	5.5	3.8	2.4	5.7	5.7	4.6	2.9	1.6	2.1	2.6	3.6	2.2	2.0	2.6	3.1	8.3
4	1.6	.5	.9	1.1	3.0	1.9	2.9	4.1	4.5	6.3	8.1	5.9	4.8	7.0	4.3	3.7	1.6	2.7	4.9	5.0	4.6	7.3	7.8	7.9	4.4	8.1
5	6.9	6.3	4.8	5.3	4.3	3.8	2.9	1.2	.5	1.2	2.2	5.0	7.0	7.5	7.7	8.1	8.4	8.6	8.8	7.7	8.3	8.3	9.4	11.0	6.1	11.0
6	12.2	11.4	9.7	10.1	8.1	6.6	7.1	5.7	3.5	2.4	3.9	6.0	7.4	8.3	8.1	7.6	9.0	10.4	9.2	8.5	9.2	9.4	9.7	11.3	8.1	12.2
7	8.1	8.9	8.5	8.0	8.2	9.2	7.6	5.7	4.0	3.5	5.5	3.3	3.8	7.4	11.6	11.8	9.7	11.0	11.7	11.8	13.5	15.8	13.2	11.6	8.9	15.8
8	14.3	14.4	17.4	14.3	13.9	14.2	12.2	10.8	6.3	2.5	5.0	6.3	4.6	6.2	6.1	4.1	3.5	3.3	4.2	6.1	3.0	1.0	2.2	2.6	7.4	17.4
9	1.7	1.5	2.1	2.1	.3	.9	2.4	4.4	7.4	8.7	8.7	7.2	7.7	7.8	7.2	10.2	10.5	8.7	4.0	1.8	2.8	2.1	1.6	1.4	4.7	10.5
10	1.7	1.6	1.9	3.6	4.8	7.4	8.2	8.5	10.5	11.5	12.6	7.3	6.3	4.8	4.4	5.4	2.4	3.5	4.7	.8	-.5	-.3	.6	1.7	4.7	12.6
11	1.9	2.0	3.8	3.3	1.6	1.3	4.8	6.5	4.7	1.7	1.9	1.3	3.3	6.2	8.8	10.0	11.0	11.5	11.8	11.5	11.2	11.1	13.3	11.5	6.5	13.3
12	13.7	16.6	11.8	14.2	11.3	11.2	10.3	10.0	8.2	7.3	7.2	7.6	7.7	6.1	6.4	6.0	6.9	8.1	8.9	12.0	15.6	11.7	12.2	11.2	10.1	16.4
13	5.8	4.2	5.6	7.6	6.8	5.8	5.3	5.7	4.3	6.7	10.1	10.5	11.5	12.3	13.2	8.6	8.1	10.5	12.2	8.3	9.5	11.9	10.4	7.5	8.4	13.2
14	8.7	10.8	10.3	10.1	9.7	10.2	10.5	9.0	9.0	7.2	9.1	12.0	12.3	9.9	10.7	10.8	14.6	13.6	10.4	8.6	7.3	11.1	8.6	9.4	10.2	14.6
15	11.1	14.1	16.6	20.4	20.7	19.9	20.1	16.6	10.7	6.6	7.2	9.3	13.4	15.6	15.3	12.7	11.4	10.6	12.0	10.8	12.4	11.1	11.4	14.9	13.5	20.7
16	15.1	13.4	14.5	15.7	15.3	11.7	10.3	11.1	10.9	8.5	10.9	11.0	9.6	8.9	9.6	11.1	14.7	15.1	15.6	15.6	14.7	17.1	14.0	11.8	12.8	17.1
17	13.3	10.8	11.1	10.2	10.2	12.6	11.3	10.3	11.8	12.2	12.9	12.1	16.3	15.0	16.8	18.4	16.9	17.1	17.6	16.3	15.8	17.1	15.2	16.0	14.1	18.4
18	18.8	21.7	20.8	19.7	18.2	17.8	18.1	14.3	16.5	11.5	14.0	15.0	16.6	18.6	20.1	18.6	16.7	12.8	12.5	13.0	15.4	14.1	15.5	15.3	16.5	21.7
19	16.1	17.5	15.6	19.0	17.9	15.3	16.4	15.9	15.2	16.1	18.3	13.6	15.9	14.8	17.6	20.8	23.1	16.9	17.8	15.7	15.6	15.9	10.4	11.1	16.4	23.1
20	10.0	.8	.6	2.4	5.2	17.5	18.1	23.6	25.6	22.9	25.5	27.5	27.2	25.1	25.5	25.9	29.1	28.9	27.8	27.1	24.0	25.5	29.7	36.3	21.3	36.3
21	37.1	37.2	32.3	27.9	18.7	16.3	19.3	20.3	9.4	.9	.1	.6	3.7	4.2	6.8	4.2	4.8	4.6	3.6	3.4	4.7	2.3	4.3	2.0	11.2	37.2
22	3.4	4.6	3.4	4.9	6.9	8.9	7.2	7.0	7.0	7.8	6.1	6.6	7.8	5.7	4.8	4.2	2.9	1.8	.4	.4	4.2	4.3	.0	1.2	4.6	8.9
23	4.3	2.4	2.0	1.6	4.6	7.3	5.6	6.6	9.8	10.9	9.4	6.4	7.5	6.5	4.8	4.4	4.6	3.6	5.6	8.1	7.4	4.5	2.3	3.4	5.6	10.9
24	6.2	6.1	4.1	7.0	2.0	6.8	4.2	2.3	3.1	5.0	10.3	9.9	1.5	7.2	6.3	7.4	9.8	9.2	8.5	8.7	7.0	7.1	6.3	7.9	6.4	10.3
25	9.2	11.5	9.4	9.8	9.5	7.9	6.5	7.3	8.4	7.8	6.7	7.3	6.1	4.4	10.0	13.5	17.9	16.0	18.0	15.0	18.5	17.4	16.4	10.9	11.1	18.5
26	4.4	4.9	10.5	14.6	16.8	15.3	17.1	14.4	19.0	16.7	17.6	20.7	25.2	26.3	30.2	30.6	29.8	22.9	14.2	13.2	11.1	9.2	4.8	4.3	16.4	30.6
27	5.2	7.4	8.6	11.2	10.1	8.7	9.3	8.7	10.0	11.9	10.6	7.3	8.1	3.8	4.1	3.3	2.6	1.9	.4	1.1	1.1	1.5	3.4	7.2	6.1	11.9
28	10.0	9.7	11.9	16.4	15.8	18.4	17.7	17.0	19.6	20.8	20.3	25.8	26.7	26.4	26.7	26.8	27.8	28.8	28.6	27.0	26.2	27.3	30.2	35.1	22.5	35.1
29	34.0	40.1	45.2	45.7	45.2	43.1	42.2	42.0	35.6	35.2	30.9	28.9	27.0	22.8	19.4	11.2	12.6	13.8	11.9	12.6	15.4	15.8	14.0	17.8	27.6	45.7
30	21.9	21.5	19.0	13.7	11.3	10.9	8.7	5.9	4.1	4.2	.8	.8	.3	1.1	1.4	2.2	2.3	2.0	3.7	3.1	4.7	11.0	16.2	14.9	7.7	21.9
31	16.4	15.2	15.6	16.4	15.3	16.2	15.5	17.2	16.9	16.4	18.1	18.1	19.2	19.7	19.3	19.6	19.7	17.5	17.2	17.8	17.7	19.6	20.6	7.4	17.2	20.6
AV	10.6	10.6	10.6	11.4	10.7	11.0	11.0	10.7	10.3	9.6	10.2	10.2	10.9	11.0	11.4	11.3	11.4	10.7	10.3	9.9	10.2	10.5	10.3	10.2	10.6	(1
SD	8.5	9.5	9.5	9.1	8.5	8.0	7.9	7.8	7.2	7.1	6.9	7.2	7.6	7.0	7.2	7.3	8.0	7.3	7.0	6.7	6.6	7.0	7.5	8.2	5.9	(1

WIND SPEED 100:011
MILES/HOUR
LEVEL HEIGHT : 10 METERS

RATTELLE WIND STUDY, #505
TEHACHAPI MTNS, CA.
SITE 7

NOV, 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

B-51

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	19.3	16.4	16.7	18.8	17.4	14.6	9.0	6.5	4.7	3.4	1.4	.4	3.0	3.4	4.3	4.6	6.3	7.0	7.4	6.9	4.9	5.2	4.1	4.0	7.9	19.3
2	2.3	.2	.2	1.3	1.0	4.0	3.8	5.0	5.9	5.9	7.1	6.0	6.2	8.3	6.3	6.1	6.1	7.1	8.4	6.6	4.9	2.2	2.0	3.2	4.6	8.4
3	3.4	2.3	.0	.4	.8	4.8	9.5	7.8	7.1	4.3	5.7	6.2	4.0	5.2	7.1	9.8	10.2	8.9	7.6	9.1	5.4	2.0	8.6	9.5	5.8	10.2
4	17.1	15.3	14.9	15.7	14.0	19.0	21.3	22.9	25.9	21.4	21.8	21.9	18.2	16.9	19.2	20.7	21.9	20.2	20.2	20.3	21.1	20.3	17.0	16.8	19.3	25.9
5	14.6	17.9	15.9	16.0	17.6	14.4	10.9	10.7	9.0	5.8	1.8	4.5	8.8	11.0	9.5	9.2	10.6	8.2	5.9	8.6	6.5	6.3	4.8	3.6	9.7	17.9
6	5.7	6.1	7.0	5.5	5.7	4.9	4.3	7.0	10.6	9.2	8.1	8.6	9.6	11.0	11.7	11.5	9.3	7.3	7.9	12.4	9.5	10.3	11.6	11.2	8.6	12.4
7	12.3	10.0	11.7	12.6	14.2	17.5	21.5	16.5	13.4	12.7	12.6	14.0	13.8	14.0	16.0	16.8	20.1	21.0	18.2	20.5	12.3	12.2	9.9	12.0	14.8	21.5
8	9.9	8.5	7.1	4.8	1.9	6.2	9.0	9.8	9.5	11.7	11.8	14.0	15.4	13.5	14.5	13.2	12.3	12.8	13.7	13.5	15.8	16.4	11.3	11.1	11.2	16.4
9	12.6	14.6	13.3	13.6	13.2	14.5	15.6	14.4	13.1	11.3	12.5	13.7	14.3	17.1	18.3	19.6	21.1	21.9	20.4	20.6	24.3	24.3	19.5	10.8	16.4	24.3
10	11.2	11.1	10.3	7.4	5.4	4.2	2.0	4.5	6.0	6.5	7.4	8.5	9.4	8.0	7.2	5.0	.6	.8	3.1	5.1	5.2	5.0	6.0	3.8	6.0	11.2
11	2.7	1.7	3.3	6.2	9.1	10.9	9.4	10.2	9.9	6.3	4.3	3.6	2.7	3.7	4.5	5.5	4.2	4.6	3.4	5.7	8.1	8.8	8.9	7.7	6.1	10.9
12	7.0	7.4	6.7	7.9	7.3	6.2	5.5	7.2	7.1	7.4	8.5	9.4	10.2	9.3	8.6	7.5	6.3	4.6	5.5	6.9	8.9	8.3	7.7	7.4	7.5	10.2
13	7.6	7.9	8.1	9.5	10.3	9.3	9.5	9.1	9.5	10.8	10.4	10.0	9.6	8.2	7.1	7.8	6.5	6.6	6.9	6.0	5.9	4.7	2.7	3.0	7.8	10.8
14	4.5	3.9	4.7	6.4	7.1	8.2	6.1	9.3	7.6	8.8	11.1	7.5	6.9	5.8	6.3	7.4	7.2	7.9	7.6	5.1	4.8	5.2	5.3	5.6	6.7	11.1
15	5.5	6.1	5.6	5.4	5.9	6.0	6.8	6.6	7.7	8.5	9.0	9.6	7.3	7.7	6.4	7.8	6.9	7.5	7.8	6.7	7.4	7.3	5.2	5.7	6.9	9.6
16	6.7	6.9	7.5	7.3	6.3	8.8	7.2	8.1	7.8	7.8	8.1	7.8	7.3	6.4	6.7	4.7	6.1	3.6	3.5	3.3	3.7	8.3	20.3	20.4	7.7	20.4
17	18.2	17.5	8.1	6.6	9.8	9.8	10.6	9.4	12.2	17.2	21.4	20.8	24.2	20.4	23.5	24.1	26.6	27.8	29.1	33.0	33.7	31.1	29.4	28.5	20.5	33.7
18	26.2	27.1	28.2	26.6	30.1	30.3	28.9	27.7	24.9	26.5	25.5	23.4	22.0	22.6	25.1	26.3	29.2	31.9	33.2	33.0	31.5	33.8	28.9	24.8	27.8	33.8
19	24.4	22.1	18.0	16.6	14.2	11.0	9.1	10.8	10.2	12.8	15.7	16.2	15.8	16.2	15.7	16.1	16.3	13.4	10.4	8.6	8.6	8.1	8.5	8.2	13.7	26.4
20	6.1	3.1	1.9	4.1	4.8	3.8	3.2	2.2	1.0	.5	.8	.6	2.7	3.7	3.4	6.1	7.9	7.7	6.1	4.4	2.8	2.2	5.9	7.5	3.9	7.9
21	9.0	10.4	10.3	8.6	8.6	8.9	8.2	8.7	9.4	10.3	9.2	8.2	8.4	7.7	5.5	2.6	.3	2.9	2.4	.0	.9	2.4	1.9	1.9	6.1	10.4
22	1.9	1.5	.4	.9	1.6	2.2	3.3	4.6	5.5	3.9	1.5	3.1	4.1	7.5	7.7	8.9	10.2	9.8	12.1	9.9	12.5	17.4	20.7	26.1	7.4	26.1
23	25.6	27.0	27.4	21.3	11.9	11.6	11.2	10.9	12.5	13.4	25.6	28.0	24.3	23.4	20.9	22.8	25.8	24.7	17.8	15.4	13.8	15.4	15.3	17.9	19.3	28.0
24	19.5	20.5	21.2	20.1	21.3	22.5	24.3	25.7	28.1	31.7	31.3	29.8	31.1	29.6	31.3	31.5	32.2	32.8	35.3	32.4	30.2	25.8	21.9	16.3	26.9	35.3
25	15.7	18.8	21.0	23.2	28.9	27.0	25.2	26.2	23.4	19.5	21.0	18.7	14.4	17.4	13.5	16.0	17.3	19.9	21.1	21.5	22.3	20.1	21.0	24.5	20.7	28.9
26	25.5	26.4	26.6	27.3	27.3	27.2	28.6	31.6	31.1	29.5	27.8	30.8	33.9	31.9	29.6	25.9	23.7	22.5	25.6	27.5	25.0	23.9	21.0	17.2	27.0	33.9
27	11.6	9.9	3.3	1.7	1.9	3.5	3.2	5.0	5.5	9.6	9.3	8.1	7.2	6.2	6.3	5.2	4.2	3.5	5.6	7.3	8.4	9.5	9.3	10.5	6.5	11.6
28	7.8	9.1	11.4	10.3	11.2	10.6	11.8	12.2	14.6	14.0	13.4	11.4	6.8	4.9	3.4	3.6	2.9	5.8	4.9	7.3	9.3	7.8	7.0	6.4	8.6	14.6
29	7.1	3.0	1.8	2.7	1.4	2.1	3.1	1.3	2.2	2.8	3.9	3.8	1.9	.4	.1	1.5	4.0	6.7	7.3	5.8	2.4	4.4	5.1	7.2	3.4	7.3
30	7.2	5.2	6.7	6.5	3.2	1.1	1.3	.4	1.1	1.1	-1	1.6	2.0	2.4	2.6	1.1	-2	-2	1.4	2.4	2.7	3.5	3.3	2.0	2.4	7.2
AV	11.7	11.3	10.6	10.5	10.4	10.8	10.8	11.1	11.2	11.2	11.6	11.7	11.5	11.5	11.4	11.6	11.9	12.0	12.0	12.2	11.8	11.7	11.5	11.2	11.4	( )
SD	7.4	7.9	8.0	7.6	8.1	7.7	7.9	7.9	7.7	7.8	8.5	8.4	8.4	7.9	8.1	8.2	9.1	9.2	9.2	9.4	9.2	8.9	7.9	7.6	7.3	( )

WIND SPEED (CCH01)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHAPI MTS., CA.
SITE A

JUL, 1979

AFROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SURJECT TO *
* REVISTON *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
2	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
3	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
4	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
5	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
6	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
7	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
8	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
9	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
10	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
11	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
12	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
13	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
14	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
15	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
16	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
17	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
18	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
19	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
20	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
21	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
22	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
23	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
24	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
25	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	5.0	4.0	5.0	5.0	4.0	3.0	1.0	1.0	2.0	.0	3.0	5.0	3.2	5.0
26	6.0	4.0	6.0	8.0	6.0	5.0	3.0	.0	1.0	4.0	3.0	3.0	5.0	5.0	5.0	5.0	4.0	5.0	4.0	4.0	8.0	13.0	11.0	11.0	5.3	13.0
27	8.0	7.0	7.0	5.0	5.0	2.0	2.0	5.0	4.0	5.0	5.0	6.0	5.0	6.0	6.0	6.0	6.0	3.0	5.0	3.0	2.0	3.0	2.0	2.0	4.6	8.0
28	5.0	4.0	5.0	7.0	6.0	6.0	6.0	4.0	4.0	5.0	6.0	4.0	6.0	8.0	6.0	5.0	4.0	4.0	6.0	6.0	5.0	7.0	3.0	3.0	5.2	8.0
29	4.0	4.0	4.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	3.0	3.0	6.0	3.0	3.0	3.0	3.0	2.0	4.2	6.0
30	1.0	1.0	2.0	.0	.0	.0	.0	.0	.0	2.0	3.0	4.0	5.0	4.0	3.0	1.0	.0	1.0	2.0	.0	1.0	1.0	1.0	.0	1.3	5.0
31	.0	.0	.0	.0	.0	.0	.0	1.0	2.0	2.0	3.0	5.0	5.0	4.0	4.0	4.0	3.0	4.0	3.0	2.0	2.0	3.0	6.0	2.0	2.3	6.0
AV	4.0	3.3	4.0	4.2	3.7	3.0	2.7	2.3	2.7	3.8	4.2	4.3	4.9	5.1	4.7	4.4	3.4	3.3	3.9	2.7	3.3	4.3	4.1	3.6	3.7	[ ]
SD	2.8	2.3	2.4	3.1	2.6	2.4	2.3	2.1	1.8	1.3	1.2	.9	.8	1.4	1.0	1.5	1.7	1.2	1.8	1.8	2.2	4.1	3.1	3.3	1.4	[ ]

WIND SPEED FCC1011
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHAPI MTRS, CA.
SITE 8

AUG. 1979

AEROVTRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	6.0	5.0	4.0	5.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	6.0	4.0	3.0	1.0	1.0	3.0	6.0	10.0	8.0	7.0	6.0	4.8	10.0
2	4.0	4.0	4.0	4.0	3.0	3.0	2.0	2.0	3.0	3.0	5.0	6.0	5.0	5.0	3.0	2.0	1.0	2.0	4.0	1.0	3.0	2.0	2.0	4.0	3.3	6.0
3	4.0	4.0	3.0	2.0	2.0	2.0	2.0	3.0	2.0	2.0	3.0	3.0	3.0	3.0	2.0	3.0	4.0	4.0	2.0	3.0	3.0	3.0	1.0	2.0	2.9	6.0
4	3.0	3.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	1.0	1.0	1.0	2.0	1.0	2.0	3.0	3.0	3.0	4.0	2.0	2.0	4.0
5	4.0	4.0	3.0	2.0	1.0	1.0	1.0	2.0	2.0	1.0	3.0	3.0	3.0	2.0	3.0	4.0	4.0	3.0	5.0	3.0	2.0	3.0	1.0	1.0	2.5	5.0
6	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	3.0	4.0	3.0	4.0	2.0	2.0	2.0	3.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.3	4.0
7	1.0	1.0	1.0	1.0	1.0	1.0	3.0	4.0	4.0	5.0	4.0	4.0	4.0	2.0	1.0	4.0	6.0	3.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	6.0
8	1.0	1.0	1.0	1.0	1.0	2.0	3.0	3.0	3.0	4.0	5.0	6.0	5.0	5.0	6.0	6.0	5.0	2.0	1.0	1.0	1.0	3.0	3.0	2.0	2.8	6.0
9	4.0	4.0	2.0	1.0	1.0	1.0	3.0	3.0	2.0	3.0	3.0	6.0	6.0	5.0	4.0	5.0	5.0	5.0	2.0	1.0	1.0	5.0	5.0	3.0	3.4	6.0
10	3.0	5.0	5.0	3.0	3.0	3.0	5.0	4.0	5.0	5.0	6.0	6.0	7.0	6.0	5.0	5.0	4.0	4.0	4.0	1.0	2.0	3.0	3.0	3.0	4.1	7.0
11	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	3.0	4.0	7.0	8.0	7.0	5.0	6.0	6.0	4.0	4.0	6.0	7.0	7.0	7.0	5.0	3.9	8.0
12	5.0	4.0	4.0	1.0	3.0	2.0	1.0	2.0	4.0	7.0	6.0	5.0	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	3.6	7.0
13	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	( )
14	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	7.0	6.0	6.0	6.0	6.0	4.0	2.0	3.0	3.0	3.0	3.0	5.0	4.5	7.0
15	5.0	4.0	4.0	4.0	3.0	4.0	2.0	1.0	1.0	3.0	5.0	7.0	6.0	7.0	7.0	6.0	5.0	4.0	4.0	2.0	2.0	2.0	3.0	3.0	3.9	7.0
16	3.0	3.0	3.0	4.0	2.0	1.0	1.0	1.0	1.0	1.0	2.0	4.0	3.0	4.0	4.0	5.0	5.0	4.0	4.0	2.0	2.0	1.0	2.0	3.0	2.4	5.0
17	3.0	2.0	2.0	3.0	2.0	1.0	4.0	1.0	2.0	4.0	2.0	3.0	7.0	8.0	8.0	4.0	4.0	2.0	1.0	1.0	3.0	2.0	4.0	4.0	3.2	8.0
18	4.0	2.0	3.0	2.0	2.0	3.0	1.0	1.0	2.0	4.0	4.0	5.0	7.0	6.0	6.0	5.0	3.0	1.0	2.0	3.0	11.0	16.0	8.0	2.0	4.3	16.0
19	3.0	3.0	6.0	4.0	1.0	1.0	1.0	1.0	3.0	5.0	6.0	7.0	5.0	6.0	6.0	6.0	6.0	6.0	2.0	3.0	3.0	9.0	9.0	6.0	4.4	9.0
20	6.0	5.0	6.0	5.0	5.0	5.0	4.0	3.0	2.0	4.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0	4.0	4.0	6.0	4.0	6.0	6.0	7.0	5.1	7.0
21	4.0	4.0	6.0	7.0	7.0	5.0	4.0	1.0	2.0	4.0	5.0	6.0	7.0	6.0	6.0	5.0	4.0	3.0	3.0	3.0	4.0	6.0	6.0	4.0	4.7	7.0
22	5.0	3.0	6.0	5.0	3.0	5.0	3.0	1.0	2.0	2.0	3.0	3.0	4.0	6.0	4.0	4.0	3.0	1.0	1.0	3.0	4.0	5.0	5.0	4.0	3.5	6.0
23	4.0	7.0	7.0	5.0	5.0	5.0	3.0	2.0	3.0	6.0	6.0	5.0	3.0	5.0	6.0	6.0	5.0	4.0	4.0	4.0	6.0	7.0	6.0	9.0	5.0	7.0
24	4.0	6.0	8.0	6.0	9.0	9.0	7.0	6.0	6.0	5.0	6.0	8.0	6.0	5.0	4.0	4.0	6.0	4.0	3.0	5.0	5.0	7.0	6.0	5.0	5.8	9.0
25	6.0	6.0	8.0	10.0	9.0	6.0	6.0	7.0	6.0	7.0	7.0	6.0	9.0	8.0	10.0	10.0	11.0	9.0	8.0	10.0	12.0	9.0	10.0	9.0	8.3	12.0
26	5.0	5.0	5.0	5.0	6.0	8.0	7.0	8.0	7.0	6.0	8.0	7.0	7.0	7.0	7.0	6.0	4.0	5.0	5.0	8.0	9.0	8.0	9.0	5.0	6.5	9.0
27	4.0	5.0	6.0	5.0	8.0	8.0	4.0	4.0	5.0	5.0	5.0	4.0	5.0	6.0	7.0	6.0	5.0	5.0	5.0	7.0	7.0	5.0	9.0	10.0	5.8	10.0
28	5.0	6.0	7.0	6.0	7.0	6.0	7.0	6.0	5.0	7.0	6.0	6.0	9.0	7.0	8.0	6.0	7.0	5.0	2.0	2.0	2.0	2.0	3.0	3.0	5.4	9.0
29	3.0	6.0	4.0	2.0	1.0	2.0	3.0	3.0	2.0	1.0	2.0	3.0	2.0	3.0	5.0	4.0	5.0	3.0	2.0	3.0	4.0	2.0	5.0	7.0	3.2	7.0
30	8.0	6.0	5.0	4.0	3.0	3.0	4.0	5.0	5.0	6.0	5.0	4.0	5.0	5.0	6.0	5.0	5.0	5.0	4.0	3.0	4.0	5.0	7.0	7.0	5.0	8.0
31	6.0	5.0	3.0	3.0	3.0	2.0	1.0	2.0	1.0	2.0	3.0	4.0	4.0	5.0	5.0	4.0	4.0	3.0	2.0	2.0	4.0	3.0	2.0	3.0	3.2	6.0
AV	3.9	3.9	4.1	3.6	3.4	3.3	3.0	2.7	2.9	3.9	4.5	4.9	5.4	5.1	5.0	4.8	4.8	3.5	3.1	3.2	4.1	4.6	4.6	4.2	4.0	( )
SD	1.7	1.8	2.2	2.2	2.6	2.4	2.1	2.2	1.9	2.0	1.6	1.6	1.8	1.8	2.2	1.7	1.9	1.7	1.7	2.2	3.1	3.5	2.7	2.3	1.5	( )

B-53

WIND SPEED (CIC1011)

MTILES/HOHR

LEVEL HEIGHT : 10 METERS

PATTELL WIND STUDY, #505

TEHACHAPI MTNS, CA.

SITE A

SEP, 1979

AEROVIRONMENT INC.

*****
 * PRELIMINARY DATA *
 * AS OF 26/AUG/80 *
 *
 * SUBJECT TO *
 * REVISION *
 *
 *****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK	
1	2.0	3.0	4.0	2.0	2.0	2.0	3.0	2.0	2.0	2.0	3.0	5.0	3.0	4.0	5.0	6.0	5.0	5.0	3.0	2.0	2.0	3.0	3.0	3.0	3.2	6.0	
2	2.0	1.0	4.0	4.0	6.0	6.0	6.0	6.0	4.0	3.0	3.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	2.0	3.0	2.0	4.0	4.0	4.0	6.0	
3	4.0	3.0	2.0	3.0	8.0	4.0	6.0	7.0	3.0	4.0	3.0	4.0	5.0	4.0	3.0	3.0	4.0	5.0	3.0	2.0	4.0	3.0	5.0	4.0	4.0	8.0	
4	4.0	3.0	4.0	7.0	5.0	5.0	6.0	4.0	4.0	3.0	4.0	4.0	5.0	4.0	4.0	4.0	4.0	4.0	3.0	2.0	3.0	5.0	5.0	3.0	4.1	7.0	
5	4.0	4.0	3.0	3.0	2.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0	3.0	4.0	4.0	4.0	2.0	3.0	2.0	3.0	5.0	6.0	3.0	3.0	3.1	6.0	
6	4.0	2.0	1.0	.0	1.0	2.0	2.0	1.0	1.0	1.0	1.0	3.0	4.0	4.0	4.0	3.0	3.0	3.0	2.0	3.0	3.0	2.0	1.0	.0	2.1	4.0	
7	.0	.0	.0	.0	.0	1.0	1.0	2.0	3.0	4.0	5.0	6.0	10.0	8.0	4.0	2.0	2.0	3.0	1.0	1.0	1.0	2.0	2.0	4.0	2.6	10.0	
8	5.0	4.0	6.0	6.0	5.0	5.0	2.0	2.0	3.0	2.0	4.0	4.0	3.0	3.0	3.0	4.0	3.0	2.0	2.0	3.0	3.0	2.0	3.0	2.0	3.4	6.0	
9	1.0	2.0	2.0	1.0	1.0	1.0	.0	.0	.0	.0	.0	.0	3.0	4.0	4.0	2.0	3.0	3.0	1.0	1.0	3.0	2.0	3.0	4.0	1.7	4.0	
10	3.0	2.0	1.0	1.0	2.0	2.0	2.0	2.0	.0	.0	.0	.0	.0	2.0	3.0	3.0	3.0	3.0	.0	2.0	2.0	3.0	2.0	2.0	1.7	3.0	
11	2.0	3.0	3.0	3.0	2.0	2.0	1.0	2.0	2.0	1.0	1.0	2.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	5.0	2.3	5.0	
12	4.0	3.0	2.0	2.0	2.0	1.0	2.0	3.0	2.0	2.0	2.0	1.0	3.0	3.0	4.0	3.0	3.0	3.0	2.0	3.0	4.0	4.0	5.0	4.0	2.8	5.0	
13	4.0	3.0	3.0	4.0	2.0	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	2.0	5.0	5.0	7.0	7.0	6.0	4.0	4.0	5.0	5.0	6.0	7.0	6.0	4.7	7.0	
14	6.0	5.0	8.0	8.0	6.0	5.0	5.0	3.0	2.0	3.0	2.0	3.0	4.0	5.0	5.0	6.0	5.0	5.0	4.0	5.0	6.0	6.0	6.0	6.0	5.0	8.0	
15	6.0	7.0	5.0	4.0	4.0	3.0	1.0	4.0	7.0	9.0	10.0	7.0	6.0	4.0	3.0	4.0	5.0	5.0	3.0	1.0	2.0	2.0	2.0	1.0	4.4	10.0	
16	1.0	.0	2.0	4.0	3.0	1.0	.0	.0	.0	.0	2.0	2.0	3.0	5.0	5.0	5.0	6.0	4.0	3.0	4.0	4.0	4.0	4.0	5.0	2.8	6.0	
17	7.0	7.0	6.0	7.0	6.0	6.0	5.0	5.0	4.0	4.0	4.0	5.0	5.0	6.0	6.0	6.0	6.0	4.0	2.0	2.0	3.0	4.0	6.0	7.0	5.1	7.0	
18	5.0	6.0	7.0	6.0	6.0	5.0	5.0	6.0	6.0	6.0	5.0	4.0	3.0	5.0	7.0	6.0	6.0	5.0	5.0	7.0	6.0	7.0	8.0	6.0	5.8	8.0	
19	6.0	5.0	5.0	6.0	7.0	6.0	7.0	6.0	6.0	4.0	4.0	4.0	5.0	6.0	6.0	5.0	5.0	4.0	2.0	4.0	5.0	4.0	4.0	5.0	5.0	7.0	
20	4.0	4.0	4.0	4.0	4.0	5.0	4.0	1.0	.0	1.0	2.0	2.0	2.0	5.0	4.0	3.0	4.0	2.0	2.0	2.0	2.0	1.0	.0	.0	2.6	5.0	
21	.0	.0	.0	1.0	1.0	4.0	8.0	9.0	5.0	4.0	6.0	10.0	6.0	7.0	5.0	2.0	3.0	2.0	2.0	3.0	4.0	2.0	1.0	2.0	3.6	10.0	
22	1.0	.0	1.0	1.0	.0	1.0	1.0	1.0	6.0	7.0	7.0	6.0	4.0	3.0	2.0	3.0	3.0	7.0	8.0	5.0	6.0	3.0	3.0	2.0	3.4	8.0	
23	1.0	3.0	4.0	3.0	3.0	2.0	1.0	1.0	1.0	1.0	5.0	8.0	9.0	12.0	15.0	14.0	15.0	16.0	11.0	12.0	11.0	13.0	13.0	11.0	7.7	16.0	
24	15.0	13.0	11.0	11.0	8.0	11.0	13.0	9.0	6.0	7.0	8.0	16.0	17.0	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	11.2	17.0
25	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	( )
26	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	( )
27	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	( )
28	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	( )
29	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	( )
30	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	( )
AV	3.8	3.5	3.7	3.8	3.6	3.6	3.7	3.4	3.0	3.0	3.6	4.3	4.8	4.8	4.8	4.4	4.5	4.3	3.1	3.3	3.9	3.9	4.0	3.9	4.0	( )	( )
SD	3.1	2.8	2.6	2.7	2.4	2.4	3.0	2.6	2.2	2.4	2.4	3.4	3.3	2.0	2.5	2.5	2.6	2.8	2.3	2.4	2.1	2.5	2.7	2.4	2.0	( )	( )

ABOUT (11 MAY 79)

B-54

WIND SPEED (001011)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY #505
TEHACHAPI MTS, CA.
SITE R

OCT. 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

B-55

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)
2	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	13.9	13.8	13.6	17.3	16.8	18.9	10.4	8.6	8.0	9.3	3.9	2.8	4.3	4.5	10.4	18.9
3	2.0	1.8	1.9	4.6	3.5	3.6	1.4	1.1	4.0	7.2	9.8	7.7	5.0	6.1	9.6	7.8	5.8	4.6	2.7	2.6	2.0	2.4	4.3	4.5	4.8	9.8
4	3.3	.9	2.7	1.5	2.2	3.7	6.8	5.2	4.2	6.4	6.1	6.6	3.8	2.8	5.2	4.4	4.3	4.4	5.8	4.1	3.3	3.0	3.3	3.6	4.1	6.8
5	5.6	4.2	5.2	8.5	8.9	5.4	4.8	3.0	2.8	2.1	3.3	5.8	7.1	6.8	7.1	5.8	4.8	3.4	4.6	4.8	5.1	6.0	7.5	8.9	5.5	8.9
6	7.7	6.0	4.5	7.0	5.4	5.4	5.2	3.4	2.8	2.9	5.8	5.2	5.3	5.7	6.8	5.9	3.8	3.7	5.5	5.7	6.7	6.5	6.0	6.2	5.0	7.7
7	6.7	7.4	8.4	11.5	8.8	8.5	9.5	5.3	4.3	6.7	7.5	5.4	5.8	5.5	9.0	8.1	5.2	4.2	5.2	4.5	4.9	6.7	11.6	9.3	7.1	11.6
8	5.1	6.1	6.5	7.6	4.5	4.7	3.7	3.3	3.1	2.1	3.6	5.1	6.7	6.1	6.0	4.7	2.5	1.0	1.3	1.3	1.5	1.4	1.2	1.5	3.8	7.6
9	3.2	1.3	3.6	2.2	5.4	9.3	8.8	4.6	11.3	9.3	12.1	15.1	11.7	12.5	9.9	8.7	6.1	4.8	3.5	3.6	3.3	3.7	3.5	3.7	6.7	15.1
10	3.0	3.0	2.9	3.0	7.6	10.5	9.2	9.5	11.1	10.3	11.1	11.1	9.2	8.4	4.5	3.6	6.0	10.5	10.2	4.8	2.8	2.0	3.2	3.8	6.8	11.1
11	4.3	2.3	4.0	4.1	4.1	3.3	1.7	1.6	1.5	1.6	1.8	2.8	4.8	6.1	6.9	5.8	4.8	5.0	6.5	5.2	5.7	4.8	5.7	8.4	4.3	8.4
12	7.8	5.7	7.0	5.9	5.4	7.0	7.2	6.4	4.5	2.9	3.5	6.1	6.7	5.6	5.3	5.1	3.9	4.7	7.0	5.8	5.9	5.8	4.2	5.8	5.6	7.8
13	7.4	6.6	4.7	4.1	5.1	2.4	3.0	2.9	3.7	2.1	4.1	5.1	6.2	6.9	7.2	6.4	1.8	(L)	(L)	(L)	(L)	(L)	(L)	(L)	4.7	7.4
14	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)
15	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)
16	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)
17	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)
18	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)
19	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)
20	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)
21	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)
22	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)
23	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)
24	15.1	13.9	9.6	4.6	8.7	16.1	16.3	18.9	18.3	17.8	15.7	11.8	9.0	6.0	3.4	1.2	.3	.2	3.0	7.1	6.6	6.6	6.3	3.7	9.2	18.9
25	5.1	4.3	11.4	10.6	12.9	15.5	17.6	14.2	11.4	4.7	2.8	5.2	4.3	4.2	2.2	2.4	3.5	3.3	5.9	6.3	6.0	5.5	8.7	4.7	7.2	17.6
26	4.7	6.5	7.4	6.6	8.1	10.2	8.4	7.5	4.9	3.5	3.4	3.2	1.5	1.5	1.6	1.8	3.3	2.5	4.2	3.6	5.2	4.9	2.7	3.8	4.6	10.2
27	5.2	6.0	5.0	4.4	2.8	1.5	1.5	.8	.8	.6	1.0	.5	1.4	3.4	3.2	5.0	2.3	4.0	6.0	5.7	5.5	6.0	7.3	8.2	3.7	8.2
28	7.7	6.1	6.0	9.3	7.6	6.5	9.2	10.8	9.8	9.2	10.2	9.9	11.2	11.1	8.8	6.5	6.4	8.6	8.1	10.5	9.0	8.1	7.4	9.4	8.6	11.2
29	9.1	7.3	7.8	7.2	5.0	5.3	5.5	6.5	6.8	7.2	6.6	6.1	6.1	6.4	6.1	5.7	8.1	6.2	11.4	10.8	6.2	6.6	8.0	6.1	7.0	11.4
30	3.8	3.3	2.4	.0	.7	2.9	2.5	4.4	7.1	3.1	1.3	1.2	5.4	4.2	4.0	6.7	5.5	7.1	10.3	10.0	8.5	7.4	6.4	7.6	4.8	10.3
31	9.5	9.3	9.1	10.1	10.8	9.7	10.2	10.9	9.6	8.4	8.3	4.9	5.9	6.8	7.9	8.8	7.6	7.4	7.0	5.8	8.7	8.8	7.9	3.5	8.2	10.9
AV	6.1	5.4	5.8	5.9	6.2	6.9	7.0	6.3	6.4	5.7	6.6	6.6	6.5	6.7	6.6	6.2	4.8	4.9	6.0	5.9	5.6	5.5	5.8	6.0	6.2	(L)
SD	3.0	3.0	2.6	3.1	3.0	4.0	4.5	4.6	4.3	4.1	4.2	3.8	3.0	3.5	3.3	3.6	2.3	2.5	2.6	2.5	2.5	2.3	2.4	2.6	1.9	(L)

WIND SPEED (CC:011)

MILES/HOUR

LEVEL HEIGHT : 10 METERS

RATTELLE WIND STUDY, #505

TEHACHAPI MTNS, CA.

SITE A

NOV. 1979

AFROVIRONMENT INC.

*****
*
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*
*****
*
* SUBJECT TO *
* REVISION *
*
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	6.2	3.3	4.5	2.7	1.1	1.7	2.3	1.6	1.0	1.1	2.6	5.7	6.4	6.0	4.2	2.3	1.9	1.2	.1	1.2	3.6	2.3	.5	2.2	2.7	6.4
2	5.5	5.0	10.0	13.1	11.3	3.7	12.3	17.9	19.4	17.5	16.2	14.1	10.5	7.0	4.7	4.0	1.6	1.5	5.3	5.6	4.3	3.1	.8	.3	8.1	19.0
3	.0	1.5	.3	1.0	1.8	4.2	3.1	.3	1.6	6.3	10.9	7.4	2.8	2.6	5.4	3.5	2.4	2.7	6.0	8.6	9.8	7.7	9.0	8.6	4.5	10.9
4	6.3	10.6	10.8	9.9	11.3	9.0	7.8	3.4	4.2	4.5	5.7	6.7	7.6	7.3	6.4	7.9	7.1	7.1	9.3	10.3	5.9	6.6	7.3	8.8	7.6	11.3
5	9.9	8.4	6.3	6.0	4.4	3.6	1.6	.3	2.3	12.2	15.6	15.2	11.5	9.5	8.2	7.7	7.8	8.0	8.2	6.3	4.4	4.6	5.6	8.2	7.3	15.6
6	7.9	7.8	9.1	9.6	13.1	13.4	17.0	21.6	16.3	20.1	17.6	20.7	22.8	18.5	15.9	17.9	14.8	12.9	14.9	15.1	16.0	17.1	14.9	18.1	15.5	22.8
7	20.2	21.0	28.5	21.0	22.9	26.7	22.0	19.6	23.1	20.7	23.7	25.1	22.9	21.0	31.1	20.8	23.4	35.1	27.8	26.8	26.5	23.4	20.9	17.3	23.8	35.1
8	12.9	11.1	4.7	2.3	4.3	2.9	2.6	4.6	4.4	3.5	4.4	6.7	5.4	7.4	5.7	6.4	5.5	5.0	7.5	6.4	2.6	3.3	3.4	3.9	5.3	12.9
9	4.3	4.4	5.3	5.0	5.8	6.5	3.8	6.1	5.6	4.2	3.1	5.3	4.9	6.8	7.3	7.7	6.9	7.2	7.9	11.0	11.7	10.9	9.0	5.8	6.5	11.7
10	5.1	4.3	3.5	3.2	4.4	3.2	1.5	1.4	4.4	10.3	13.0	10.8	9.0	4.6	3.8	3.1	.9	.5	2.1	1.0	1.7	1.4	3.1	1.2	4.1	13.0
11	.3	.0	1.5	5.7	4.2	4.7	6.3	4.8	3.1	5.5	3.7	2.6	1.6	1.3	1.1	1.2	1.6	2.2	3.6	3.2	6.9	9.0	15.3	16.3	4.4	16.3
12	14.6	14.9	17.2	16.1	17.1	19.0	17.6	21.4	21.8	17.9	21.4	22.5	17.0	16.9	15.9	16.2	14.4	13.8	12.4	11.9	11.1	10.5	12.2	15.7	16.2	22.5
13	15.5	15.8	14.9	15.6	11.2	10.9	13.0	14.6	17.1	17.9	16.3	16.5	14.7	15.2	13.5	11.6	12.7	15.0	14.6	13.5	12.3	15.0	20.3	19.8	14.9	20.3
14	17.0	17.3	19.8	21.2	18.6	20.7	23.4	26.4	24.1	25.3	26.3	24.9	22.0	19.5	18.4	17.6	16.8	18.6	19.4	20.3	20.6	21.8	24.3	23.9	21.2	26.4
15	25.3	25.3	24.6	20.5	19.6	19.7	21.1	23.0	21.9	19.7	21.9	21.1	17.1	16.0	15.1	13.4	13.1	15.5	16.2	14.4	13.2	12.4	12.1	13.0	18.1	25.3
16	11.4	11.2	11.7	12.8	14.8	15.8	15.5	21.6	21.9	21.6	21.1	18.6	16.4	13.9	12.6	13.2	13.6	14.6	14.6	13.5	10.5	9.4	4.5	6.9	14.2	21.9
17	9.4	8.3	10.3	9.4	3.7	4.6	4.0	3.8	4.5	4.5	7.6	9.8	8.1	9.3	8.2	7.6	6.3	8.8	9.1	7.8	11.3	8.6	10.7	9.1	7.7	11.3
18	8.8	9.2	8.1	5.2	8.6	6.8	6.9	6.1	7.4	6.4	7.2	8.1	5.8	5.8	6.8	7.6	9.7	6.5	6.1	5.6	6.1	6.4	6.2	8.7	7.1	9.7
19	7.7	6.5	11.5	7.6	4.5	6.4	5.2	5.1	7.5	7.3	6.5	6.4	7.5	9.9	10.1	9.9	8.1	10.5	11.2	9.7	5.8	6.8	5.3	6.2	7.6	11.5
20	6.3	3.0	3.7	2.1	2.9	3.7	4.5	3.5	2.9	2.0	1.2	2.0	2.4	1.7	2.0	1.9	3.2	4.9	3.2	3.6	3.3	1.6	.8	4.0	2.9	6.3
21	11.4	13.0	15.0	17.1	20.5	21.1	22.0	21.3	21.6	19.7	19.4	15.5	13.2	11.9	11.2	10.8	9.4	4.5	4.0	10.3	8.6	7.0	7.8	9.2	13.6	22.0
22	8.0	9.0	9.9	7.4	8.7	9.3	13.8	13.8	14.6	16.9	14.8	9.7	3.0	1.4	2.1	2.9	3.8	6.9	6.2	6.2	5.0	4.2	6.0	6.8	7.9	16.9
23	7.7	8.4	10.5	10.2	11.1	12.1	10.5	12.1	16.3	20.0	14.8	10.2	9.6	12.2	9.1	7.5	8.5	12.7	13.3	9.9	9.7	9.0	9.4	10.1	11.0	20.0
24	10.3	11.5	13.0	13.5	12.8	12.6	15.5	16.7	15.8	16.5	16.9	13.8	15.5	15.3	14.0	14.9	15.3	14.1	15.4	15.1	13.4	12.8	16.2	15.9	14.5	16.9
25	8.4	6.6	6.9	6.2	6.5	6.9	10.2	9.9	12.1	10.2	9.6	8.4	8.7	7.0	8.3	6.8	8.5	8.9	10.4	10.1	12.3	8.1	8.3	10.1	8.7	12.3
26	15.2	14.4	15.5	14.4	13.0	13.1	13.4	10.2	11.4	11.1	11.3	11.7	10.4	13.0	12.5	16.0	15.9	13.5	10.6	7.8	6.1	7.1	7.6	8.8	11.8	16.0
27	10.0	8.5	6.8	5.0	1.3	1.1	6.2	9.6	10.4	13.3	13.3	16.9	16.6	13.1	11.1	10.8	11.2	12.2	15.1	15.3	18.6	22.2	23.6	20.6	12.4	24.6
28	19.6	18.9	18.3	21.4	24.3	24.1	23.2	26.8	30.3	31.6	34.6	33.8	22.1	17.4	12.3	12.0	10.2	12.1	14.3	15.4	13.3	18.3	19.4	19.7	20.6	34.6
29	16.4	17.0	11.9	14.2	10.0	11.2	9.1	10.8	11.3	7.6	7.1	8.4	9.4	9.8	5.5	3.0	2.7	.7	4.1	5.2	4.2	2.5	1.8	2.6	7.8	17.0
30	4.7	5.5	3.5	4.3	5.5	5.4	2.4	1.5	6.1	4.3	3.2	3.6	.8	1.3	1.5	1.1	3.8	2.5	4.7	1.7	3.3	2.8	3.1	4.1	3.4	8.1
AV	10.2	10.1	10.6	10.1	10.0	10.1	10.6	11.3	12.1	12.7	13.0	12.7	10.9	10.1	9.5	8.9	8.7	9.3	9.9	9.8	9.4	9.2	9.6	10.3	10.4	11.1
SD	5.7	5.9	6.5	6.2	6.5	7.0	7.1	8.3	8.1	7.7	8.0	7.5	6.5	5.7	6.1	5.5	5.5	7.0	5.9	5.7	5.7	6.2	6.8	6.5	5.7	7.1

B-56

AROUT (11 MAY 79)

WIND SPEED ICC1011
MILES/HOHR
LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY.#505
TFWACHAPI MTNS, CA.
SITE A

DEC. 1979

AFROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	9.6	4.2	10.5	11.2	13.1	9.8	13.5	14.9	17.7	18.7	18.2	15.2	14.6	14.0	14.4	12.9	13.5	13.0	10.8	13.1	9.2	10.1	6.4	7.1	12.3	18.7
2	13.6	13.2	15.1	19.2	14.4	11.0	9.8	7.5	5.6	2.4	9.9	5.5	5.8	5.8	2.1	1.4	5.6	1.4	4.4	6.2	3.5	3.8	5.6	6.0	19.2	
3	10.9	13.4	12.5	12.7	16.5	18.1	17.6	17.1	16.5	15.5	14.3	12.2	11.3	13.9	14.9	12.4	12.1	9.6	11.1	12.2	13.2	14.4	17.5	15.4	14.0	18.1
4	13.8	13.3	11.0	5.5	4.0	1.3	2.2	2.4	3.5	2.6	2.5	1.0	1.4	3.6	4.1	4.6	7.7	8.0	10.4	7.4	9.8	11.1	13.5	16.6	6.7	16.6
5	12.0	14.2	17.1	17.6	10.0	11.7	15.6	16.0	11.3	7.6	2.4	2.0	.4	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	10.6	17.6
6	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
7	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
8	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
9	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
10	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
11	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
12	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
13	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
14	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
15	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
16	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
17	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
18	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
19	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
20	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
21	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
22	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
23	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
24	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
25	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
26	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
27	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
28	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
29	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
30	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
31	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
AV	12.0	11.7	13.2	13.2	11.6	10.4	11.7	11.6	10.9	9.4	7.7	6.2	5.6	8.1	8.6	8.0	8.7	7.8	8.4	9.3	9.6	9.8	10.3	11.2	9.9	[ ]
SD	1.6	3.7	2.5	4.9	4.3	5.4	5.4	5.7	5.7	6.7	7.1	6.2	6.1	6.0	6.2	4.7	4.7	4.5	4.1	3.6	2.5	4.0	5.5	4.9	3.1	[ ]

B-57

WIND SPEED (00:01)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTELIE WIND STUDY, #505
TEHACHAPI MTS., CA.
SITE 9

MAY, 1979

AEROVIRONMENT INC.

*****
*
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*
*****
*
* SUBJECT TO *
* REVISION *
*
*****

CLOCK HOUR (LOCAL STANDARD TIME)

B-58

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK	
1	11.0	15.0	13.0	10.0	9.0	10.0	9.5	10.0	8.5	6.0	6.0	7.5	6.5	7.0	9.0	8.0	11.5	12.0	13.0	14.0	18.5	21.5	24.0	20.0	11.7	24.0	
2	13.0	9.5	8.0	7.5	8.5	6.5	7.5	8.0	8.0	8.0	8.0	6.5	8.0	7.0	6.5	7.0	7.0	10.0	8.5	8.0	10.0	10.0	11.5	11.0	8.5	13.0	
3	12.5	11.5	10.0	3.5	2.0	4.5	2.5	3.5	2.5	1.5	1.0	2.0	1.5	1.5	1.5	3.0	5.0	4.0	4.5	6.5	8.5	8.0	8.0	8.0	4.9	12.5	
4	6.0	5.0	9.5	12.0	12.0	10.5	5.5	6.5	12.5	14.0	16.5	14.0	12.5	13.0	14.0	11.0	6.0	5.5	2.5	4.0	2.0	4.0	8.0	8.0	8.9	16.5	
5	8.0	6.0	5.0	7.5	6.5	4.0	9.5	10.5	10.5	9.0	6.0	5.0	5.5	8.5	11.0	11.5	13.0	12.5	19.5	21.0	17.0	15.0	20.0	16.0	10.8	21.0	
6	13.5	15.5	22.0	22.5	19.0	17.5	16.5	15.0	15.5	12.5	11.0	10.5	12.5	14.0	15.5	18.0	18.5	18.5	18.5	15.5	14.5	15.0	19.0	19.0	16.2	22.5	
7	17.0	14.5	12.5	12.0	13.5	13.5	13.0	14.0	17.0	17.5	15.0	15.0	16.5	19.0	21.0	18.0	17.0	12.0	10.0	11.0	15.0	20.0	21.5	15.5	15.5	21.5	
8	11.0	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	11.0	11.0	
9	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	11.0	11.0	
10	10.0	8.0	4.5	4.5	4.0	3.5	3.5	5.5	3.5	2.0	2.0	2.5	4.0	5.0	5.0	6.0	8.0	8.5	5.5	5.0	7.5	8.0	9.0	9.0	5.6	10.0	
11	7.5	8.0	9.0	10.0	10.0	10.5	11.0	7.5	3.0	1.0	2.5	3.0	2.5	2.5	2.5	3.0	4.5	4.5	6.5	7.0	9.0	5.5	6.5	6.5	6.0	11.0	
12	4.5	8.5	8.0	8.5	8.0	7.0	5.0	3.5	3.0	5.0	5.0	6.5	4.0	3.5	2.5	4.5	6.0	7.0	6.5	7.0	6.5	6.0	5.5	5.5	5.7	8.5	
13	3.5	2.5	1.5	2.0	3.5	4.0	4.0	2.0	2.5	2.0	5.0	7.5	6.0	7.5	6.0	4.5	4.0	7.5	4.5	5.0	5.0	6.0	4.5	3.0	4.4	7.5	
14	2.5	3.5	3.5	2.5	4.0	4.5	3.0	6.0	7.5	8.0	11.0	11.0	15.0	16.0	17.5	18.5	19.0	19.5	15.0	11.0	12.0	17.0	13.5	8.5	10.4	19.5	
15	3.5	5.0	4.0	3.0	3.0	2.0	3.0	3.0	4.0	11.0	12.0	9.0	8.0	7.0	7.0	7.0	4.0	8.0	12.0	11.0	10.0	10.0	12.0	12.0	7.1	12.0	
16	14.0	14.0	12.0	11.0	10.0	10.0	9.0	6.0	3.0	2.0	2.0	3.0	7.0	10.0	11.0	14.0	15.0	15.0	14.0	16.0	17.0	17.0	15.0	14.0	10.9	17.0	
17	18.0	18.0	17.0	15.0	14.0	11.0	6.0	5.0	3.0	4.0	15.0	15.0	15.0	8.0	6.0	8.0	7.0	7.0	6.0	6.0	6.0	6.0	5.0	9.5	18.0		
18	6.0	8.0	10.0	11.0	11.0	9.0	7.0	7.0	7.0	7.0	5.0	4.0	2.0	5.0	7.0	9.0	9.0	9.0	9.0	9.0	10.0	8.0	10.0	11.0	7.9	11.0	
19	10.0	10.0	10.0	8.0	9.0	8.0	7.0	5.0	5.0	3.0	4.0	3.0	7.0	9.0	5.0	7.0	10.0	11.0	18.0	23.0	20.0	22.0	24.0	24.0	10.9	24.0	
20	27.0	26.0	24.0	19.0	18.0	18.0	19.0	16.0	13.0	13.0	13.0	13.0	13.0	14.0	14.0	14.0	15.0	16.0	15.0	17.0	16.0	15.0	15.0	17.0	16.7	27.0	
21	20.0	22.0	21.0	20.0	20.0	20.0	18.0	17.0	16.0	12.0	9.0	9.0	10.0	10.0	12.0	13.0	13.0	14.0	15.0	16.0	19.0	20.0	19.0	19.0	16.0	22.0	
22	17.0	18.0	18.0	16.0	13.0	12.0	13.0	13.0	14.0	13.0	12.0	11.0	12.0	13.0	13.0	13.0	16.0	16.0	15.0	16.0	18.0	18.0	17.0	17.0	14.8	18.0	
23	18.0	15.0	16.0	20.0	18.0	19.0	19.0	17.0	16.0	17.0	14.0	15.0	17.0	17.0	17.0	17.0	15.0	15.0	15.0	15.0	16.0	18.0	19.0	21.0	16.9	21.0	
24	20.0	14.0	15.0	19.0	16.0	19.0	21.0	18.0	15.0	13.0	14.0	17.0	18.0	17.0	18.0	18.0	20.0	23.0	23.0	20.0	20.0	18.0	19.0	17.0	18.0	23.0	
25	17.0	16.0	15.0	12.0	8.0	6.0	5.0	4.0	3.0	6.0	9.0	8.0	3.0	4.0	7.0	10.0	10.0	14.0	15.0	13.0	13.0	15.0	19.0	19.0	10.5	19.0	
26	19.0	19.0	20.0	18.0	17.0	17.0	14.0	14.0	14.0	14.0	14.0	15.0	16.0	15.0	17.0	15.0	17.0	18.0	17.0	17.0	18.0	22.0	24.0	24.0	17.3	24.0	
27	23.0	20.0	19.0	18.0	20.0	17.0	16.0	16.0	15.0	12.0	10.0	10.0	9.0	8.0	9.0	12.0	14.0	13.0	11.0	11.0	11.0	11.0	14.0	16.0	14.0	23.0	
28	17.0	16.0	20.0	18.0	20.0	17.0	16.0	15.0	16.0	17.0	14.0	16.0	15.0	14.0	18.0	17.0	21.0	25.0	25.0	28.0	29.0	31.0	31.0	31.0	20.3	31.0	
29	32.0	31.0	33.0	33.0	34.0	32.0	28.0	18.0	11.0	9.0	10.0	8.0	6.0	6.0	9.0	11.0	12.0	13.0	16.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	34.0
30	18.0	18.0	17.0	17.0	15.0	10.0	10.0	8.0	6.0	4.0	2.0	4.0	4.0	7.0	8.0	10.0	10.0	11.0	10.0	12.0	10.0	14.0	12.0	12.0	10.4	18.0	
31	10.0	10.0	8.0	4.0	3.0	6.0	18.0	24.0	28.0	28.0	30.0	28.0	20.0	18.0	12.0	8.0	8.0	4.0	8.0	12.0	6.0	8.0	10.0	10.0	13.4	30.0	
AV	13.7	13.4	13.3	12.6	12.0	11.3	11.0	10.3	9.8	9.4	9.6	9.6	9.4	9.9	10.4	10.8	11.5	12.2	12.4	12.8	13.1	13.9	14.7	14.3	11.7	11.7	
SD	7.0	6.6	7.1	7.1	7.0	6.6	6.4	5.7	6.2	6.1	6.0	5.7	5.3	4.8	5.1	4.6	5.0	5.2	5.5	5.7	5.7	6.3	6.6	6.2	4.4	4.4	

WIND SPEED [CC:011
MILES/HOUR
LEVEL HEIGHT : 10 METERS

RATTELL WIND STUDY, #505
TEHACHAPI MTNS, CA.
SITE 9

JUN. 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	10.0	9.0	10.0	11.0	9.0	9.0	7.0	4.0	3.0	2.0	14.0	13.0	13.0	6.0	5.0	8.0	9.0	8.0	7.0	10.0	11.0	9.0	10.0	13.0	8.8	14.0
2	13.0	15.0	14.0	13.0	11.0	11.0	11.0	8.0	6.0	5.0	4.0	4.0	6.0	7.0	8.0	9.0	10.0	11.0	7.0	4.0	6.0	10.0	9.0	11.0	8.9	15.0
3	16.0	17.0	19.0	20.0	20.0	19.0	18.0	12.0	9.0	7.0	7.0	6.0	6.0	7.0	11.0	11.0	12.0	13.0	17.0	18.0	19.0	19.0	23.0	22.0	14.5	23.0
4	22.0	21.0	20.0	21.0	22.0	21.0	18.0	16.0	16.0	16.0	14.0	14.0	15.0	15.0	15.0	16.0	17.0	19.0	23.0	22.0	23.0	23.0	25.0	24.0	19.1	25.0
5	24.0	24.0	17.0	18.0	18.0	18.0	16.0	16.0	15.0	16.0	14.0	13.0	13.0	13.0	14.0	15.0	17.0	19.0	21.0	22.0	22.0	22.0	20.0	21.0	17.8	24.0
6	22.0	24.0	24.0	25.0	26.0	25.0	26.0	24.0	24.0	23.0	22.0	20.0	18.0	19.0	16.0	17.0	19.0	21.0	25.0	27.0	25.0	24.0	26.0	34.0	23.2	34.0
7	32.0	30.0	32.0	30.0	25.0	20.0	19.0	20.0	22.0	21.0	20.0	20.0	23.0	25.0	27.0	24.0	24.0	22.0	21.0	26.0	27.0	26.0	24.0	20.0	20.2	32.0
8	17.0	13.0	8.0	5.0	16.0	24.0	29.0	27.0	27.0	27.0	30.0	24.0	20.0	15.0	14.0	10.0	6.0	3.0	.0	2.0	2.0	3.0	2.0	3.0	13.6	30.0
9	3.0	4.0	3.0	2.0	2.0	2.0	4.0	10.0	19.0	24.0	24.0	23.0	20.0	19.0	19.0	19.0	14.0	3.0	4.0	6.0	6.0	7.0	8.0	4.0	10.2	24.0
10	4.0	6.0	6.0	4.0	3.0	5.0	10.0	10.0	18.0	22.0	23.0	28.0	30.0	23.0	21.0	19.0	15.0	10.0	4.0	.0	3.0	3.0	3.0	3.0	11.4	30.0
11	1.0	2.0	2.0	.0	1.0	1.0	.0	.0	1.0	5.0	5.0	9.0	9.0	7.0	6.0	6.0	5.0	6.0	6.0	7.0	7.0	8.0	7.0	6.0	4.5	9.0
12	7.0	5.0	5.0	1.0	5.0	3.0	1.0	4.0	6.0	6.0	4.0	5.0	5.0	3.0	2.0	1.0	4.0	3.0	3.0	2.0	3.0	5.0	4.0	6.0	3.9	7.0
13	8.0	9.0	10.0	12.0	12.0	10.0	9.0	7.0	4.0	4.0	5.0	3.0	1.0	.0	2.0	2.0	6.0	7.0	6.0	6.0	3.0	4.0	6.0	11.0	6.1	12.0
14	17.0	20.0	21.0	22.0	19.0	16.0	17.0	18.0	20.0	20.0	16.0	14.0	12.0	13.0	14.0	13.0	14.0	14.0	14.0	13.0	15.0	16.0	19.0	23.0	16.7	23.0
15	23.0	24.0	25.0	25.0	26.0	27.0	23.0	23.0	24.0	22.0	20.0	17.0	14.0	14.0	15.0	14.0	15.0	15.0	13.0	15.0	17.0	18.0	17.0	21.0	19.5	27.0
16	22.0	22.0	23.0	26.0	25.0	22.0	22.0	22.0	21.0	20.0	19.0	17.0	17.0	17.0	17.0	14.0	16.0	15.0	16.0	18.0	21.0	22.0	25.0	28.0	20.3	28.0
17	33.0	32.0	29.0	26.0	26.0	26.0	25.0	23.0	27.0	24.0	21.0	20.0	21.0	17.0	19.0	22.0	20.0	22.0	21.0	23.0	23.0	21.0	20.0	19.0	23.3	33.0
18	17.0	20.0	22.0	20.0	20.0	20.0	16.0	14.0	13.0	15.0	17.0	14.0	15.0	13.0	15.0	14.0	13.0	14.0	16.0	21.0	19.0	15.0	23.0	19.0	16.9	23.0
19	17.0	18.0	18.0	17.0	11.0	7.0	6.0	4.0	3.0	3.0	8.0	11.0	11.0	8.0	7.0	7.0	5.0	5.0	4.0	6.0	9.0	9.0	7.0	6.0	8.6	18.0
20	7.0	11.0	11.0	10.0	8.0	5.0	6.0	3.0	2.0	2.0	3.0	3.0	3.0	5.0	3.0	3.0	4.0	5.0	4.0	3.0	4.0	7.0	9.0	13.0	5.6	13.0
21	17.0	21.0	22.0	21.0	19.0	17.0	16.0	17.0	20.0	19.0	16.0	18.0	18.0	20.0	18.0	16.0	16.0	18.0	20.0	21.0	21.0	22.0	25.0	25.0	19.3	25.0
22	24.0	27.0	25.0	22.0	21.0	21.0	20.0	20.0	17.0	16.0	16.0	15.0	14.0	15.0	15.0	17.0	18.0	19.0	20.0	20.0	20.0	18.0	18.0	17.0	19.0	27.0
23	17.0	18.0	19.0	20.0	19.0	19.0	17.0	14.0	12.0	10.0	9.0	7.0	4.0	3.0	3.0	6.0	9.0	10.0	10.0	11.0	12.0	13.0	13.0	13.0	12.0	20.0
24	12.0	12.0	13.0	11.0	10.0	10.0	9.0	6.0	1.0	3.0	5.0	4.0	2.0	3.0	4.0	6.0	6.0	8.0	11.0	13.0	13.0	16.0	18.0	20.0	9.0	20.0
25	20.0	17.0	18.0	16.0	16.0	15.0	18.0	14.0	11.0	11.0	11.0	10.0	13.0	13.0	13.0	12.0	13.0	13.0	13.0	15.0	16.0	17.0	17.0	20.0	14.7	20.0
26	21.0	22.0	23.0	23.0	23.0	22.0	21.0	20.0	18.0	15.0	13.0	15.0	17.0	16.0	14.0	14.0	14.0	14.0	19.0	19.0	20.0	21.0	21.0	21.0	18.3	23.0
27	19.0	19.0	18.0	17.0	17.0	16.0	14.0	13.0	10.0	9.0	8.0	10.0	12.0	13.0	14.0	15.0	16.0	16.0	15.0	16.0	17.0	17.0	17.0	19.0	14.9	19.0
28	19.0	18.0	19.0	20.0	19.0	18.0	17.0	15.0	15.0	15.0	14.0	15.0	14.0	14.0	14.0	15.0	16.0	15.0	14.0	17.0	18.0	19.0	20.0	20.0	16.7	20.0
29	21.0	21.0	21.0	20.0	20.0	22.0	22.0	20.0	21.0	20.0	18.0	14.0	13.0	11.0	11.0	10.0	12.0	12.0	13.0	15.0	17.0	19.0	18.0	20.0	17.1	22.0
30	21.0	21.0	20.0	19.0	19.0	19.0	20.0	18.0	16.0	15.0	14.0	14.0	14.0	14.0	16.0	14.0	15.0	14.0	15.0	19.0	20.0	19.0	19.0	19.0	17.0	21.0
AV	16.9	17.4	17.2	16.6	16.3	15.7	15.2	14.1	14.0	13.9	13.8	13.3	13.1	12.3	12.0	12.3	12.7	12.5	12.6	13.7	14.4	15.0	15.7	16.7	14.5	1
SD	7.6	7.4	7.4	7.9	7.3	7.4	7.3	7.1	7.9	7.6	6.8	6.4	6.5	6.1	6.1	5.6	5.1	5.7	6.7	7.5	7.3	6.7	7.5	7.6	5.6	1

WIND SPEED (CC:011)
MILES/HOHR
LEVEL HEIGHT : 10 METERS

BAYTELLE WIND STUDY, #505
TEHACHAPI MTRS, CA.
SITE 9

JUL, 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

B-60

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	20.0	20.0	17.0	18.0	18.0	16.0	15.0	15.0	13.0	14.0	13.0	10.0	10.0	7.0	5.0	3.0	3.0	5.0	5.0	7.0	4.0	2.0	1.0	2.0	10.1	20.0
2	1.0	3.0	3.0	5.0	8.0	3.0	2.0	2.0	1.0	.0	.0	.0	1.0	2.0	3.0	4.0	8.0	11.0	9.0	5.0	4.0	3.0	6.0	11.0	4.0	11.0
3	14.0	16.0	13.0	12.0	10.0	5.0	6.0	10.0	11.0	10.0	7.0	7.0	7.0	5.0	3.0	3.0	4.0	6.0	7.0	8.0	9.0	12.0	12.0	13.0	8.8	16.0
4	14.0	17.0	21.0	21.0	23.0	25.0	24.0	23.0	22.0	21.0	21.0	18.0	16.0	15.0	15.0	14.0	15.0	15.0	16.0	14.0	13.0	12.0	12.0	13.0	17.5	25.0
5	16.0	16.0	18.0	20.0	20.0	21.0	25.0	22.0	23.0	23.0	21.0	19.0	18.0	15.0	16.0	15.0	16.0	16.0	16.0	16.0	17.0	16.0	14.0	18.0	18.2	25.0
6	20.0	22.0	22.0	23.0	23.0	22.0	23.0	23.0	19.0	20.0	22.0	21.0	20.0	17.0	15.0	15.0	16.0	17.0	20.0	20.0	20.0	21.0	19.0	17.0	19.9	23.0
7	20.0	23.0	22.0	21.0	20.0	20.0	22.0	24.0	22.0	21.0	21.0	19.0	18.0	15.0	11.0	11.0	6.0	3.0	7.0	9.0	12.0	13.0	14.0	14.0	16.2	24.0
8	14.0	18.0	20.0	22.0	19.0	16.0	16.0	22.0	25.0	23.0	23.0	21.0	16.0	15.0	15.0	15.0	15.0	13.0	11.0	11.0	12.0	12.0	10.0	9.0	16.4	25.0
9	10.0	9.0	7.0	8.0	7.0	7.0	5.0	5.0	3.0	1.0	3.0	4.0	3.0	3.0	2.0	2.0	5.0	7.0	11.0	12.0	13.0	13.0	13.0	13.0	6.9	13.0
10	15.0	17.0	20.0	25.0	25.0	24.0	22.0	23.0	22.0	22.0	22.0	23.0	24.0	20.0	20.0	18.0	18.0	16.0	17.0	16.0	19.0	19.0	18.0	20.0	20.2	25.0
11	21.0	23.0	25.0	25.0	27.0	30.0	29.0	28.0	29.0	28.0	27.0	25.0	25.0	23.0	23.0	23.0	21.0	24.0	25.0	27.0	27.0	27.0	32.0	37.0	26.3	37.0
12	37.0	35.0	33.0	27.0	28.0	25.0	24.0	24.0	26.0	27.0	27.0	25.0	21.0	20.0	19.0	19.0	17.0	17.0	18.0	20.0	22.0	21.0	22.0	23.0	24.0	37.0
13	21.0	20.0	20.0	20.0	20.0	17.0	16.0	16.0	13.0	11.0	8.0	3.0	14.0	15.0	15.0	13.0	11.0	13.0	14.0	15.0	14.0	11.0	10.0	8.0	14.1	21.0
14	9.0	11.0	13.0	12.0	11.0	9.0	7.0	7.0	3.0	3.0	6.0	9.0	8.0	8.0	6.0	5.0	3.0	3.0	3.0	2.0	2.0	1.0	1.0	2.0	6.0	13.0
15	4.0	3.0	9.0	12.0	11.0	8.0	8.0	10.0	11.0	9.0	9.0	9.0	10.0	11.0	13.0	15.0	17.0	14.0	10.0	13.0	13.0	15.0	15.0	14.0	11.0	17.0
16	13.0	13.0	14.0	15.0	16.0	15.0	13.0	15.0	17.0	16.0	18.0	16.0	15.0	12.0	10.0	10.0	14.0	12.0	11.0	12.0	16.0	12.0	10.0	5.0	13.3	18.0
17	2.0	4.0	6.0	9.0	7.0	2.0	3.0	4.0	3.0	2.0	2.0	6.0	6.0	7.0	7.0	11.0	15.0	16.0	11.0	7.0	6.0	3.0	3.0	4.0	6.1	16.0
18	4.0	3.0	5.0	10.0	10.0	10.0	11.0	11.0	6.0	10.0	7.0	7.0	4.0	3.0	6.0	6.0	11.0	11.0	12.0	14.0	10.0	7.0	7.0	7.0	8.0	14.0
19	5.0	5.0	11.0	14.0	13.0	13.0	16.0	16.0	16.0	16.0	14.0	11.0	5.0	9.0	11.0	12.0	3.0	6.0	5.0	6.0	4.0	13.0	21.0	21.0	11.1	21.0
20	33.0	37.0	33.0	29.0	28.0	27.0	24.0	21.0	21.0	20.0	19.0	20.0	20.0	17.0	13.0	13.0	13.0	15.0	11.0	10.0	9.0	9.0	6.0	3.0	18.8	37.0
21	3.0	2.0	5.0	10.0	11.0	13.0	11.0	7.0	7.0	6.0	4.0	4.0	6.0	9.0	11.0	12.0	14.0	16.0	17.0	16.0	13.0	11.0	12.0	10.0	9.6	17.0
22	9.0	10.0	10.0	11.0	14.0	13.0	13.0	13.0	13.0	14.0	15.0	14.0	11.0	10.0	13.0	13.0	15.0	16.0	17.0	17.0	19.0	19.0	18.0	17.0	13.9	19.0
23	18.0	17.0	17.0	19.0	20.0	18.0	16.0	14.0	15.0	12.0	13.0	11.0	12.0	12.0	13.0	13.0	13.0	14.0	17.0	21.0	20.0	21.0	22.0	21.0	16.2	22.0
24	20.0	18.0	16.0	16.0	20.0	20.0	18.0	15.0	13.0	11.0	9.0	10.0	10.0	9.0	10.0	9.0	11.0	10.0	11.0	12.0	13.0	14.0	14.0	16.0	13.5	20.0
25	16.0	16.0	17.0	16.0	16.0	14.0	13.0	13.0	10.0	10.0	10.0	7.0	8.0	8.0	8.0	7.0	6.0	5.0	5.0	5.0	5.0	6.0	7.0	8.0	9.8	17.0
26	9.0	9.0	10.0	10.0	9.0	9.0	9.0	8.0	3.0	2.0	1.0	1.0	2.0	4.0	3.0	3.0	4.0	5.0	9.0	12.0	15.0	17.0	20.0	19.0	8.0	20.0
27	20.0	21.0	19.0	17.0	19.0	21.0	19.0	17.0	15.0	16.0	15.0	14.0	13.0	15.0	16.0	18.0	19.0	18.0	17.0	19.0	22.0	23.0	20.0	20.0	18.0	23.0
28	19.0	19.0	20.0	18.0	17.0	18.0	18.0	17.0	15.0	16.0	15.0	15.0	15.0	18.0	17.0	17.0	19.0	16.0	16.0	17.0	18.0	23.0	23.0	24.0	17.9	24.0
29	21.0	19.0	17.0	17.0	17.0	17.0	19.0	16.0	15.0	13.0	11.0	9.0	8.0	5.0	6.0	9.0	11.0	14.0	16.0	14.0	15.0	16.0	16.0	16.0	14.0	21.0
30	14.0	13.0	11.0	10.0	9.0	6.0	1.0	1.0	5.0	7.0	4.0	5.0	6.0	6.0	6.0	5.0	4.0	3.0	3.0	4.0	7.0	10.0	10.0	9.0	6.6	14.0
31	10.0	8.0	8.0	8.0	8.0	5.0	4.0	3.0	2.0	1.0	1.0	3.0	4.0	7.0	8.0	10.0	11.0	12.0	10.0	11.0	15.0	16.0	17.0	16.0	8.3	17.0
AV	14.6	15.1	15.5	16.1	16.3	15.1	14.6	14.4	13.5	13.1	12.5	11.8	11.5	11.0	10.9	11.1	11.5	11.9	12.2	12.6	13.2	13.5	13.7	13.9	13.3	[ ]
SD	8.2	8.4	7.4	6.1	6.3	7.3	7.5	7.3	7.8	7.8	7.9	7.2	6.5	5.6	5.4	5.3	5.4	5.2	5.2	5.6	6.1	6.4	6.9	7.5	5.5	[ ]

WIND SPEED (CC1011)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTLEF WIND STUDY, #505
TFMACHAPI MTNS, CA.
SITE 9

AUG, 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR [LOCAL STANDARD TIME]

B-61

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	18.0	16.0	16.0	16.0	16.0	14.0	16.0	16.0	14.0	15.0	14.0	15.0	15.0	15.0	17.0	17.0	17.0	16.0	17.0	19.0	20.0	23.0	22.0	22.0	16.9	23.0
2	20.0	20.0	20.0	17.0	17.0	18.0	17.0	16.0	16.0	15.0	13.0	13.0	14.0	12.0	13.0	14.0	14.0	16.0	17.0	16.0	17.0	17.0	18.0	19.0	16.2	20.0
3	20.0	18.0	20.0	18.0	17.0	17.0	14.0	13.0	11.0	10.0	10.0	10.0	11.0	11.0	10.0	10.0	11.0	12.0	12.0	13.0	14.0	15.0	16.0	16.0	13.7	20.0
4	15.0	15.0	15.0	15.0	16.0	15.0	15.0	12.0	9.0	9.0	8.0	8.0	10.0	9.0	10.0	10.0	10.0	12.0	11.0	10.0	11.0	14.0	13.0	13.0	11.9	16.0
5	12.0	10.0	10.0	11.0	12.0	12.0	12.0	12.0	13.0	10.0	8.0	8.0	8.0	11.0	12.0	12.0	13.0	12.0	12.0	12.0	15.0	15.0	15.0	15.0	11.8	15.0
6	13.0	13.0	10.0	9.0	9.0	7.0	7.0	6.0	6.0	5.0	5.0	5.0	5.0	8.0	8.0	9.0	10.0	10.0	11.0	10.0	10.0	11.0	11.0	10.0	8.7	13.0
7	9.0	8.0	10.0	10.0	8.0	5.0	1.0	2.0	2.0	2.0	4.0	5.0	6.0	7.0	5.0	3.0	6.0	8.0	7.0	11.0	10.0	9.0	9.0	6.0	11.0	
8	9.0	9.0	9.0	8.0	8.0	8.0	6.0	7.0	7.0	8.0	8.0	8.0	9.0	9.0	9.0	9.0	10.0	10.0	10.0	13.0	15.0	14.0	13.0	12.0	9.5	15.0
9	13.0	14.0	12.0	10.0	9.0	9.0	7.0	5.0	3.0	1.0	3.0	6.0	6.0	4.0	3.0	4.0	3.0	5.0	4.0	5.0	7.0	6.0	7.0	6.0	6.3	14.0
10	4.0	3.0	1.0	1.0	1.0	2.0	6.0	6.0	5.0	6.0	5.0	6.0	5.0	5.0	5.0	6.0	7.0	6.0	7.0	5.0	6.0	5.0	2.0	5.0	4.5	7.0
11	6.0	6.0	7.0	3.0	2.0	2.0	5.0	10.0	13.0	14.0	16.0	18.0	18.0	23.0	27.0	29.0	30.0	30.0	30.0	28.0	24.0	21.0	17.0	15.0	16.4	30.0
12	14.0	7.0	2.0	1.0	2.0	1.0	3.0	8.0	14.0	13.0	12.0	11.0	8.0	8.0	5.0	1.0	5.0	9.0	10.0	12.0	11.0	14.0	17.0	7.8	17.0	
13	16.0	17.0	15.0	14.0	15.0	16.0	16.0	13.0	13.0	10.0	11.0	11.0	12.0	12.0	[RF]	[RF]	[RF]	12.0	14.0	15.0	[IM]	[IM]	[IM]	[IM]	13.6	17.0
14	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	4.0	5.0	7.0	7.0	9.0	10.0	8.0	8.0	12.0	10.0	7.0	7.0	6.0	[IM]	7.7	12.0
15	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[ ]	[ ]
16	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[ ]	[ ]
17	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[ ]	[ ]
18	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[ ]	[ ]
19	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[ ]	[ ]
20	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[ ]	[ ]
21	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[ ]	[ ]
22	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[ ]	[ ]
23	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[ ]	[ ]
24	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[ ]	[ ]
25	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[ ]	[ ]
26	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[ ]	[ ]
27	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[ ]	[ ]
28	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[ ]	[ ]
29	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[ ]	[ ]
30	18.0	18.0	15.0	18.0	18.0	15.0	15.0	15.0	14.0	13.0	11.0	10.0	12.0	10.0	14.0	11.0	12.0	10.0	12.0	14.0	14.0	18.0	18.0	15.0	13.7	18.0
31	18.0	18.0	18.0	16.0	12.0	10.0	8.0	7.0	2.0	4.0	2.0	4.0	4.0	4.0	6.0	6.0	8.0	10.0	11.0	12.0	12.0	10.0	10.0	10.0	9.3	18.0
AV	13.7	12.8	12.0	11.1	10.7	10.1	9.7	9.4	8.9	8.9	8.3	8.9	9.5	9.8	10.8	10.7	10.8	11.6	12.6	12.8	13.3	13.4	12.9	13.4	11.1	[ ]
SD	4.8	5.1	5.6	5.8	5.9	5.6	5.5	4.8	4.8	4.7	4.3	4.0	3.9	4.5	5.5	5.9	6.6	5.9	5.6	5.4	4.7	5.1	5.0	4.6	3.9	[ ]

WIND SPEED (CC:011)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATELLE WIND STUDY, #505
TEHACHAPI MTS, CA.
SITE 9

SEP. 1979

AFROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SURJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

B-62

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK	
1	10.5	9.5	11.0	11.0	12.5	12.5	12.5	10.0	6.5	5.0	4.0	6.0	6.0	7.0	9.0	11.5	12.0	12.5	13.0	11.0	14.0	16.0	16.5	17.0	10.7	17.0	
2	17.0	16.5	17.0	17.5	17.5	17.5	17.5	17.0	17.5	16.0	15.5	15.0	13.0	13.5	13.5	14.5	16.5	15.5	15.0	14.5	15.5	13.0	13.0	13.5	15.5	17.5	
3	13.5	14.0	16.5	17.0	18.0	17.0	17.5	17.0	16.5	14.0	13.5	12.5	12.5	12.5	12.5	13.5	13.5	12.5	14.5	15.5	19.5	18.5	19.5	19.5	15.5	19.5	
4	22.0	21.5	22.5	21.5	22.0	23.0	23.5	22.5	21.5	20.0	17.5	15.5	14.5	13.5	14.0	14.0	14.5	14.5	14.0	14.5	17.5	17.0	17.0	18.0	18.2	23.5	
5	18.5	19.0	18.5	17.0	14.5	13.5	12.5	12.5	11.0	8.5	4.5	3.5	3.0	3.0	5.5	7.0	7.5	9.0	10.0	11.5	14.0	14.0	13.0	13.0	11.0	19.0	
6	13.0	14.0	13.0	10.0	7.5	7.0	7.5	8.5	5.5	3.0	6.0	2.5	3.5	2.5	3.0	3.0	3.5	5.0	6.0	7.5	8.5	9.0	7.5	2.5	6.6	14.0	
7	2.0	3.0	4.5	8.0	10.5	8.5	8.0	8.5	11.0	11.5	10.0	9.5	12.0	13.0	10.0	7.5	7.5	6.5	4.5	2.0	3.5	7.0	10.0	11.5	7.9	13.0	
8	13.0	14.5	13.5	12.5	11.0	10.0	10.0	9.0	6.5	5.0	3.0	2.0	2.5	3.5	5.5	8.5	8.5	9.5	10.5	12.5	13.0	12.0	12.5	15.0	9.3	15.0	
9	14.5	12.0	9.5	4.5	5.0	1.0	1.5	2.5	2.0	4.0	5.0	6.0	6.0	3.5	4.0	6.0	8.0	9.0	7.0	10.0	10.5	11.5	12.0	12.5	6.8	14.5	
10	12.5	12.5	9.5	9.0	8.0	6.5	5.5	5.0	4.5	3.0	3.0	4.5	5.0	6.0	6.0	7.0	7.0	8.5	10.0	11.0	11.5	12.5	12.0	10.0	7.9	12.5	
11	10.0	10.0	9.5	9.5	9.0	7.5	8.0	7.5	6.5	6.0	6.5	6.5	7.0	7.5	8.5	9.5	9.5	9.5	10.5	9.5	10.0	10.5	10.5	11.0	8.8	11.0	
12	11.0	11.0	10.5	11.0	11.5	10.5	11.0	12.0	10.5	9.0	6.5	3.5	4.0	4.5	5.5	8.5	9.0	10.0	10.0	10.0	10.0	10.0	10.5	11.0	9.2	12.0	
13	12.0	11.0	11.0	11.0	11.0	12.0	11.0	11.0	10.5	10.0	10.5	10.5	10.5	11.0	12.5	12.0	13.0	12.5	13.0	12.0	13.0	14.5	15.5	15.5	11.9	15.5	
14	13.5	15.5	15.0	15.0	16.0	14.5	14.0	9.0	10.0	9.0	7.0	7.0	5.0	6.0	7.0	8.0	11.0	12.0	13.0	12.0	12.0	12.0	11.0	11.0	11.1	16.0	
15	11.0	9.0	10.0	10.0	9.0	5.0	4.0	7.0	12.0	15.0	19.0	22.0	21.0	20.0	20.0	19.0	17.0	15.0	13.0	11.0	8.0	3.0	3.0	5.0	12.0	22.0	
16	3.0	4.0	4.0	4.0	3.0	1.0	4.0	2.0	2.0	2.0	3.0	1.0	4.0	5.0	6.0	7.0	8.0	7.0	6.0	5.0	5.0	7.0	8.0	4.2	8.0		
17	10.0	9.0	10.0	11.0	11.0	12.0	12.0	13.0	13.0	12.0	13.0	13.0	14.0	13.0	13.0	13.0	10.0	9.0	9.0	9.0	9.0	8.0	9.0	11.0	11.1	14.0	
18	11.0	12.0	13.0	13.0	13.0	12.0	13.0	13.0	15.0	15.0	15.0	14.0	15.0	16.0	16.0	17.0	17.0	15.0	11.0	15.0	14.0	13.0	12.0	12.0	13.8	17.0	
19	12.0	13.0	13.0	16.0	17.0	17.0	17.0	16.0	16.0	15.0	15.0	17.0	20.0	19.0	18.0	20.0	22.0	23.0	22.0	18.0	15.0	16.0	16.0	16.0	17.0	23.0	
20	14.0	11.0	10.0	10.0	9.0	11.0	14.0	14.0	14.0	13.0	12.0	13.0	14.0	13.0	13.0	13.0	12.0	13.0	13.0	13.0	12.0	11.0	10.0	8.0	12.1	14.0	
21	4.0	4.0	5.0	4.0	7.0	9.0	10.0	9.0	8.0	6.0	4.0	3.0	2.0	3.0	4.0	7.0	7.0	6.0	5.0	3.0	3.0	1.0	3.0	6.0	5.1	10.0	
22	7.0	8.0	8.0	9.0	10.0	11.0	8.0	7.0	7.0	9.0	8.0	9.0	8.0	8.0	8.0	7.0	8.0	7.0	10.0	8.0	7.0	7.0	6.0	6.0	8.0	11.0	
23	6.0	6.0	7.0	8.0	7.0	6.0	5.0	5.0	5.0	4.0	5.0	6.0	6.0	6.0	8.0	6.0	10.0	8.0	10.0	10.0	8.0	9.0	9.0	11.0	7.1	11.0	
24	10.0	8.0	6.0	6.0	5.0	6.0	5.0	5.0	4.0	3.0	3.0	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	5.5	10.0	
25	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)
26	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)
27	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)
28	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)
29	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)
30	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)
AV	11.3	11.2	11.1	11.1	10.9	10.5	10.5	10.1	9.8	9.1	8.7	8.9	8.9	9.1	9.6	10.4	10.9	10.9	10.9	10.7	11.0	10.9	11.1	11.5	10.3	(IM)	
SD	4.5	4.5	4.5	4.4	4.9	5.1	5.1	4.8	5.2	5.0	5.1	5.4	5.6	5.2	4.7	4.4	4.2	4.0	3.7	3.7	4.1	4.3	4.1	4.2	3.7	(IM)	

ADMIT [11 MAY 79]

WIND SPEED (CC:011)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

BATTLEF WIND STUDY, #505
TEHACHAPI MTNS, CA.
SITE 9

OCT. 1979

AEROVIRONMENT INC.

*****
*
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*
*****
*
* SUBJECT TO *
* REVISION *
*
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[ ]	[ ]
2	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[ ]	[ ]
3	[L]	[L]	[L]	[L]	[L]	[L]	[L]	[L]	9.4	9.4	10.1	9.0	8.1	7.6	5.7	5.1	5.4	3.2	2.5	2.7	4.9	5.6	3.4	1.1	5.8	10.1
4	.0	2.0	5.5	6.3	3.9	5.6	6.9	4.2	6.0	9.1	6.3	6.2	7.0	7.0	7.2	7.8	5.6	3.6	3.3	5.0	8.2	9.2	10.4	10.1	6.1	10.4
5	9.8	10.5	9.4	9.2	8.8	7.9	7.1	6.7	4.5	1.3	3.4	2.7	4.2	4.4	4.9	7.6	9.7	10.9	12.3	12.6	11.5	11.5	12.6	13.9	8.2	13.9
6	14.6	14.6	13.4	13.2	12.2	11.8	10.6	8.6	8.1	6.7	4.6	4.4	5.3	5.9	8.0	9.8	10.1	10.1	11.3	12.3	13.4	13.3	13.2	12.7	10.3	14.6
7	13.0	12.6	11.6	11.3	13.4	13.8	13.0	13.4	12.2	10.8	10.1	7.9	6.7	6.4	5.8	6.3	11.6	12.9	11.2	12.1	15.2	15.5	17.5	20.3	11.9	20.3
8	21.6	19.6	18.5	17.8	15.4	17.3	17.9	14.8	15.9	14.2	13.3	10.8	8.9	6.2	6.9	5.8	6.7	7.0	5.0	4.2	4.0	4.9	4.9	3.8	11.1	21.6
9	2.5	.9	3.8	3.0	6.9	8.5	9.5	9.8	12.0	14.6	19.3	23.0	24.8	26.1	25.2	24.7	21.8	20.3	14.5	12.1	8.0	9.8	10.2	10.8	13.4	26.1
10	10.5	9.5	9.4	11.1	12.2	14.8	17.3	19.3	21.4	24.3	24.4	24.0	24.8	25.5	22.9	20.9	17.2	11.3	7.2	7.2	8.5	7.8	5.8	2.8	15.0	25.5
11	1.9	2.8	3.4	7.0	7.2	7.9	7.6	7.5	5.8	5.0	3.6	1.6	1.3	4.1	2.9	2.3	4.5	7.8	11.1	12.1	13.3	13.8	13.1	13.9	6.7	13.9
12	12.8	12.3	14.1	14.8	15.0	15.7	17.1	16.1	15.2	15.1	14.0	12.6	10.7	9.6	8.4	9.0	9.9	9.3	9.6	9.4	9.4	11.0	12.2	12.5	12.3	17.1
13	12.4	11.7	11.2	11.4	10.7	9.5	7.7	8.5	10.0	8.9	8.0	8.2	7.7	7.3	8.5	9.0	10.5	12.7	12.0	11.6	9.4	8.9	8.1	5.9	9.6	12.7
14	7.5	11.5	14.0	15.0	11.6	10.9	11.8	11.8	10.8	11.4	11.6	12.1	11.1	10.7	6.9	5.5	7.1	7.5	7.2	7.3	8.0	7.2	14.0	14.8	10.3	15.0
15	11.9	10.4	14.8	12.4	12.7	15.1	18.8	22.1	20.7	19.7	20.1	19.7	19.8	16.5	13.3	13.6	12.0	12.1	14.6	16.3	16.4	16.3	16.4	17.2	16.0	22.1
16	18.0	19.1	18.4	17.6	17.7	18.1	18.2	18.7	19.1	19.1	16.5	14.2	12.3	10.8	11.1	10.7	10.8	11.0	10.6	10.5	12.7	14.8	16.5	16.0	15.1	19.1
17	15.4	15.6	14.3	15.3	18.0	17.7	18.6	17.5	15.7	15.7	16.0	14.6	14.4	13.6	14.7	14.3	13.5	13.8	17.1	15.8	16.5	19.4	20.1	19.4	16.1	20.1
18	19.1	18.9	21.0	19.9	21.0	19.6	21.9	22.9	23.1	21.3	23.2	21.0	16.7	14.6	15.7	15.2	15.5	18.1	15.7	14.1	14.5	15.6	16.9	18.6	18.5	23.2
19	17.2	16.3	14.5	17.0	16.1	14.9	13.6	14.7	13.1	17.4	17.0	13.9	12.2	13.7	13.8	20.6	18.5	14.0	15.2	16.5	12.6	10.1	14.4	13.5	15.0	20.6
20	8.4	10.1	9.7	9.4	10.0	10.1	6.2	4.3	8.8	13.7	7.4	10.8	17.4	21.8	20.2	21.9	21.4	21.3	20.4	21.5	22.7	21.5	20.0	24.0	15.1	24.0
21	23.1	22.6	23.2	25.5	27.3	28.3	29.2	29.8	28.1	22.9	20.4	18.1	13.7	17.9	18.3	18.0	8.2	3.7	1.9	7.4	12.1	14.1	14.3	14.8	18.5	29.8
22	14.9	11.8	7.4	8.1	8.6	10.5	12.9	12.7	10.8	10.1	11.6	15.7	14.4	15.3	15.8	16.0	15.6	17.4	17.0	12.5	10.8	8.3	6.1	6.6	12.1	17.4
23	7.6	5.5	4.5	4.6	9.0	7.3	5.9	5.5	7.1	7.6	6.1	4.2	11.1	12.2	13.7	15.1	17.5	18.6	19.7	19.3	15.5	11.8	10.1	9.4	10.4	19.7
24	6.7	4.7	7.4	12.0	11.0	11.9	14.4	15.5	15.8	13.1	9.7	12.4	13.9	12.0	[PF]	[PF]	10.9	11.1	11.2	11.2	10.6	9.2	10.9	11.0	11.2	15.8
25	7.9	8.1	13.1	13.2	11.3	12.4	13.9	14.5	12.4	5.2	5.9	8.6	10.0	5.8	4.6	4.5	8.4	11.0	17.3	17.4	16.4	17.4	18.1	18.2	11.5	18.2
26	19.2	20.6	23.4	25.3	25.2	26.4	26.6	24.4	19.8	18.1	16.5	12.1	11.7	9.8	11.1	13.7	14.8	15.9	16.1	14.5	14.7	14.3	13.7	13.9	17.4	26.6
27	14.3	13.5	10.5	8.6	7.7	7.0	7.6	7.3	6.6	4.4	2.7	3.4	7.9	9.9	13.4	15.3	15.4	17.3	15.7	17.3	16.9	19.0	18.3	17.3	11.6	19.0
28	18.7	21.5	21.6	23.0	22.6	24.2	22.0	23.9	26.8	28.5	28.6	28.2	26.4	26.3	25.5	25.0	25.1	28.1	32.5	34.1	34.8	35.6	34.0	33.0	27.1	35.6
29	33.3	32.5	29.5	27.3	28.9	24.8	23.5	20.0	16.9	14.7	13.8	12.4	11.8	15.8	17.8	14.2	17.1	20.2	21.6	20.0	18.4	15.7	16.8	12.3	20.0	33.3
30	6.9	7.0	7.5	3.8	5.5	3.7	4.1	4.1	7.5	2.4	4.1	4.1	3.4	7.6	11.9	16.1	16.5	16.6	16.7	16.6	16.6	16.7	16.6	16.7	9.5	16.7
31	16.3	17.7	18.8	16.9	17.9	19.5	20.0	18.6	19.1	18.3	16.4	15.7	16.8	16.9	18.1	18.6	19.4	19.2	18.5	17.9	18.2	17.3	16.5	7.0	17.5	20.0
AV	13.1	13.0	13.4	13.6	13.9	14.1	14.4	14.2	13.9	13.2	12.6	12.1	12.2	12.5	12.6	13.1	13.1	13.3	13.4	13.5	13.6	13.6	13.9	13.4	13.2	[ ]
SD	7.0	7.0	6.5	6.4	6.4	6.4	6.6	6.8	6.3	6.7	6.8	6.7	6.2	6.3	6.2	6.2	5.3	5.8	6.3	6.1	5.8	5.9	5.8	6.5	4.6	[ ]

B-63

WIND SPEED 100:011
MILES/HOUR
LEVEL HEIGHT : 10 METERS

RATTELL WIND STUDY, #505
TEHACHAPI MTS, CA.
SITE 9

NOV. 1979

AFROVIRONMENT INC.

*****
*
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*
*****
*
* SUBJECT TO *
* REVISION *
*
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVF	PEAK
1	11.5	7.9	6.7	5.4	3.0	5.1	8.7	11.8	13.6	16.5	17.4	20.0	18.6	16.2	12.9	11.2	8.9	6.5	5.4	4.2	2.7	2.7	2.2	5.1	9.3	20.0
2	8.8	8.3	9.8	11.2	13.1	9.9	9.9	12.9	14.8	15.8	14.6	14.7	13.9	14.2	13.2	8.3	4.7	1.8	1.6	5.8	6.4	5.1	.6	2.3	9.2	15.8
3	3.1	8.0	8.9	7.7	3.6	7.3	5.7	4.8	4.8	3.5	9.8	16.0	10.9	9.6	9.0	7.1	5.9	5.4	9.0	8.7	9.8	11.2	12.5	12.8	8.1	16.0
4	13.5	17.2	20.4	22.5	21.6	18.8	18.3	17.1	16.4	15.0	14.6	19.9	21.8	21.6	20.6	20.9	19.2	19.5	20.6	21.0	18.9	18.9	21.1	19.6	19.1	22.5
5	19.1	18.4	17.6	14.6	11.4	9.4	6.8	5.5	10.1	17.3	20.5	22.3	23.1	25.2	24.2	22.4	21.2	18.3	16.4	17.8	21.6	22.0	21.6	23.4	17.9	25.2
6	24.6	21.4	20.9	22.5	21.0	24.6	26.2	27.1	24.2	26.3	28.1	22.9	24.5	21.1	18.6	19.0	15.3	11.7	11.3	10.2	8.6	10.5	13.1	18.4	19.7	28.1
7	19.8	21.9	22.2	20.4	19.0	17.9	21.2	20.8	20.7	23.8	24.0	23.3	22.7	24.7	22.1	21.6	25.5	23.8	27.3	23.4	21.9	15.8	17.5	13.1	21.4	27.3
8	10.9	5.5	4.6	5.0	6.7	6.3	8.2	9.9	13.1	14.7	15.7	15.8	14.6	14.3	10.8	10.7	10.7	11.8	13.7	15.2	13.7	13.8	18.2	17.1	11.7	18.2
9	16.9	16.9	17.7	18.5	18.6	19.3	19.0	18.8	17.6	15.8	15.8	15.2	16.1	18.1	19.3	21.5	22.3	22.7	22.1	23.1	24.7	20.9	19.3	17.4	19.1	24.7
10	17.2	14.0	11.8	7.4	6.5	4.6	6.9	10.5	11.3	13.5	16.0	17.0	15.0	11.9	8.1	2.8	.9	1.5	8.2	10.2	9.5	10.3	8.4	5.0	9.5	17.2
11	4.4	3.2	7.8	9.9	12.5	14.3	16.7	18.3	17.9	14.6	10.8	9.7	8.6	4.3	6.6	6.7	9.5	11.2	10.3	12.3	15.5	19.8	20.8	21.5	12.0	21.5
12	21.3	18.7	19.8	20.3	22.1	22.4	22.0	23.1	24.8	25.2	24.0	22.4	21.1	20.8	20.2	18.7	16.7	15.3	12.9	12.7	13.1	14.6	15.3	15.3	19.3	25.2
13	15.7	17.0	17.4	16.8	16.2	15.1	16.3	18.8	19.0	20.5	20.5	18.5	18.2	17.4	17.4	17.1	14.3	13.2	13.3	14.3	16.0	17.5	18.5	20.4	17.1	20.5
14	20.7	21.3	20.7	19.8	21.4	21.5	21.5	22.3	23.4	24.9	25.1	26.6	28.7	28.8	29.2	25.9	25.3	24.0	21.4	19.5	19.3	20.6	20.2	20.3	23.0	29.2
15	21.2	24.0	26.2	26.8	27.8	27.2	25.5	25.0	23.6	22.6	23.0	23.9	22.8	21.6	22.8	20.7	23.0	22.8	20.5	18.4	17.3	16.2	15.4	16.0	22.3	27.8
16	16.5	15.1	15.0	14.6	17.6	16.5	13.0	11.1	11.1	14.9	14.8	14.4	12.8	16.2	14.4	19.1	17.4	18.7	19.5	19.2	17.1	15.0	13.0	12.1	15.4	19.5
17	10.6	9.0	7.9	7.6	8.9	7.4	7.7	7.9	6.5	9.3	14.8	15.2	17.8	18.7	17.7	11.3	9.2	10.1	9.3	9.0	11.6	14.6	19.3	22.4	11.8	22.4
18	22.1	19.5	21.6	20.0	22.8	22.5	24.9	23.9	26.8	27.3	27.6	28.6	26.0	25.3	24.9	23.2	22.1	23.9	24.1	26.0	27.1	26.7	25.7	24.5	20.5	28.6
19	25.1	23.9	24.5	21.4	20.4	21.5	21.1	22.8	24.3	25.0	25.4	26.6	27.0	27.4	27.5	26.5	26.2	22.4	21.0	18.0	14.7	12.7	11.7	12.8	22.1	27.5
20	13.4	12.0	11.5	11.7	10.7	11.5	13.7	14.8	14.6	13.2	13.1	12.9	11.7	11.1	15.3	11.4	11.8	10.4	11.2	10.6	9.1	7.5	4.3	4.9	11.4	15.3
21	6.1	7.2	7.7	6.9	8.6	7.9	3.4	1.4	1.1	1.9	3.8	5.5	5.1	7.9	9.9	11.7	10.2	11.6	11.0	7.4	3.6	10.8	13.8	14.6	7.5	10.6
22	16.0	23.0	23.0	22.8	24.2	20.0	20.6	24.9	22.8	17.9	14.7	13.4	10.2	8.9	11.5	9.6	7.4	2.4	2.0	5.4	6.6	7.5	8.3	7.6	13.8	20.9
23	6.6	4.7	7.3	6.7	6.2	7.2	9.0	11.4	13.0	14.1	14.0	12.6	10.9	9.5	6.2	1.6	4.1	8.1	10.9	11.1	13.6	13.5	12.8	12.3	9.5	14.1
24	12.1	11.3	15.1	16.8	21.1	25.6	26.2	24.7	25.3	27.4	26.4	21.6	15.4	9.5	9.7	9.2	8.6	8.3	11.0	16.0	26.0	21.8	22.0	26.0	18.2	27.4
25	28.6	27.6	21.8	22.9	21.5	17.7	16.4	19.3	24.0	24.3	24.7	25.9	28.4	28.5	26.4	26.8	27.8	28.4	27.9	27.9	26.6	27.6	29.8	30.5	25.5	30.5
26	31.0	30.2	30.4	30.5	32.3	32.6	30.7	29.8	27.5	24.7	22.6	23.8	24.2	24.0	24.6	25.1	26.5	25.2	26.2	26.4	25.3	23.8	22.4	22.9	26.8	32.6
27	22.8	23.0	23.7	20.7	22.5	19.9	20.9	24.8	22.9	22.5	24.4	25.4	27.4	27.6	28.3	28.0	28.5	30.0	29.7	29.4	27.5	27.8	30.6	31.1	25.8	31.1
28	29.8	26.5	27.2	25.9	28.9	28.8	26.4	25.5	20.4	26.2	26.4	26.8	28.4	22.7	23.8	24.1	23.3	20.6	17.0	11.6	2.2	2.8	6.0	11.2	21.4	29.8
29	13.4	17.3	18.2	20.3	19.3	19.8	23.4	22.2	21.1	16.7	13.6	15.1	17.2	18.8	21.0	26.5	26.5	26.8	25.2	26.9	26.4	25.1	26.0	26.2	21.4	26.9
30	25.9	25.7	27.2	28.8	29.3	30.7	30.8	29.9	24.2	20.3	19.3	18.7	14.6	9.7	10.2	13.3	23.3	24.6	25.4	24.7	23.7	23.3	20.7	18.0	22.6	30.8
AV	17.0	16.7	17.2	16.9	17.3	17.1	17.4	18.0	18.0	18.5	18.9	19.2	18.6	17.9	17.5	16.7	16.5	16.0	16.2	16.2	16.0	16.0	16.4	16.8	17.2	1
SD	7.4	7.4	7.1	7.3	7.9	7.9	7.8	7.6	6.8	6.5	6.0	5.6	6.5	6.9	6.9	7.6	8.2	8.3	7.7	7.3	7.8	7.0	7.5	7.4	5.9	1

ADDDT 111 MAY 791

B-64

WIND SPEED (CC101)
MILES/HOUR
LEVEL HEIGHT : 10 METERS

RATTELLE WIND STUDY, #505
TEHACHAPI MTS, CA.
SITE 9

DEC. 1979

AFROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 26/AUG/80 *
*****
* SURJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

B-65

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVE	PEAK
1	20.9	21.8	21.9	12.2	12.5	11.4	10.7	10.7	8.9	9.4	9.7	7.8	7.7	5.9	2.4	1.7	7.3	8.9	9.1	7.8	5.2	5.0	4.5	7.3	9.4	21.9
2	9.2	10.0	10.1	8.9	10.1	9.9	9.8	7.8	5.6	4.0	8.3	9.0	9.3	13.1	12.0	6.4	4.0	3.2	5.5	6.6	5.3	7.1	9.1	10.6	8.1	13.1
3	9.9	9.7	10.8	12.2	12.0	11.2	12.1	15.4	18.4	20.5	20.6	23.5	27.4	24.1	22.9	18.0	15.5	15.6	18.0	16.4	13.4	11.2	10.4	7.3	15.4	27.4
4	6.5	6.7	6.2	6.5	7.8	8.7	8.3	7.3	9.4	10.6	10.4	9.7	9.6	6.1	3.9	2.7	.6	1.3	1.5	1.1	1.5	1.2	1.3	2.3	5.5	10.6
5	2.0	.7	.5	.6	3.1	1.9	1.2	3.2	4.4	6.6	7.5	6.6	6.1	7.5	8.4	7.1	7.1	8.8	7.4	8.5	2.6	[ ]	[ ]	[ ]	4.4	8.8
6	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
7	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
8	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
9	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
10	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
11	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
12	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
13	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
14	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
15	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
16	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
17	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
18	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
19	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
20	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
21	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
22	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
23	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
24	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
25	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
26	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
27	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
28	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
29	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
30	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
31	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
AV	9.7	9.8	9.9	8.1	9.1	8.6	8.4	8.9	9.3	10.2	11.3	11.3	12.0	11.7	9.9	7.2	6.9	7.6	8.3	8.1	5.6	6.1	6.3	6.9	8.8	[ ]
SD	6.2	6.9	7.0	4.3	3.4	3.5	3.8	4.0	4.9	5.6	4.8	6.2	7.8	7.6	7.3	5.8	4.9	5.0	5.5	4.9	4.2	3.6	3.6	3.0	3.9	[ ]

WIND DIRECTION (CC:02)

DEGREES

LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505

TEHACHAPI MNS, CA.

SITE 5

AUG, 1979

AEROVIRONMENT INC.

*****
*
* PRELIMINARY DATA *
* AS OF 27/AUG/80 *
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* SUBJECT TO *
* REVISION *
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CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV	
1	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
2	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
3	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
4	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
5	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
6	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
7	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
8	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
9	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
10	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
11	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
12	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
13	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
14	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
15	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
16	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
17	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
18	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
19	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
20	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
21	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
22	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
23	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
24	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
25	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
26	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
27	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
28	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
29	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
30	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	
31	337	339	347	139	259	2	166	201	249	197	175	184	175	257	284	292	278	263	229	255	282	278	293	313	325	14

99-B

WIND DIRECTION (CC102)

LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHAPI MTNS, CA.

SITE 5

AUG, 1979

AEROVIRONMENT INC.

*****
*
* PRELIMINARY DATA *
* AS OF 27/AUG/80 *
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* SUBJECT TO *
* REVISION *
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CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
2	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
3	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
4	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
5	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
6	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
7	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
8	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
9	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
10	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
11	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
12	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
13	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
14	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
15	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
16	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
17	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
18	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
19	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
20	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
21	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
22	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
23	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
24	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
25	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
26	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
27	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
28	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
29	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
30	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(	)	(
31	NNW	NNW	NNW	SE	W	N	SSE	SSW	WSW	SSW	S	NW	S	NW	WSW	NNW	NNW	W	WSW	NNW	NW	NNW	NW	NNW	W

B-67

WIND DIRECTION (CC102)
DEGREES
LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHAPI MTS, CA.
SITE 5

SEP, 1979

AEROVIRONMENT INC.

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*
* PRELIMINARY DATA *
* AS OF 27/AUG/80 *
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* SUBJECT TO *
* REVISION *
*
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	75	356	1	52	36	73	178	263	260	246	244	249	277	290	287	288	286	303	310	307	300	274	291	302	13
2	312	318	321	327	354	33	332	300	337	331	344	333	313	316	303	302	309	303	302	308	305	314	339	258	15
3	276	300	293	293	301	80	32	59	341	289	270	274	284	284	291	301	294	298	306	311	319	320	321	323	14
4	316	320	334	298	300	297	306	290	300	70	275	275	287	289	283	285	281	286	275	288	296	286	300	310	14
5	300	303	26	59	11	313	14	13	42	130	79	262	256	275	281	283	286	292	295	291	306	279	286	289	14
6	39	312	312	312	338	14	340	337	25	120	128	120	144	134	220	280	286	290	281	279	332	21	3	2	16
7	2	275	343	342	343	345	49	90	135	146	100	116	130	152	148	150	158	190	313	311	290	298	313	303	(VA)
8	300	302	317	352	318	282	47	116	128	245	247	259	267	278	287	298	300	307	334	299	321	297	290	289	14
9	295	328	305	298	298	97	108	107	106	108	129	110	168	239	284	315	313	327	328	334	335	333	337	343	16
10	341	87	252	265	262	261	262	262	212	245	257	276	298	310	323	322	326	325	332	333	333	331	327	328	16
11	330	331	335	359	207	261	343	337	335	350	1	296	289	296	296	311	313	311	322	327	327	325	317	313	15
12	327	333	319	328	343	287	324	28	112	114	109	134	96	80	292	299	307	313	319	328	325	326	321	324	15
13	325	325	319	329	323	325	82	38	17	332	316	289	290	298	311	310	310	311	316	316	319	316	316	313	15
14	317	311	312	320	325	290	306	327	330	96	125	96	293	288	295	297	310	331	328	329	326	327	333	343	15
15	346	87	91	101	110	108	97	6	2	349	110	24	25	20	18	45	12	359	52	331	317	311	146	116	2
16	118	137	143	144	78	328	325	316	335	336	18	234	242	247	240	274	324	327	342	193	212	329	322	311	16
17	302	295	295	303	308	318	327	327	336	340	339	327	325	326	330	322	322	319	334	336	317	312	327	338	15
18	329	294	310	335	321	311	316	327	322	317	322	329	332	330	322	330	314	304	306	317	332	351	152	97	15
19	205	280	284	288	296	299	295	292	304	324	310	295	285	298	314	312	301	299	312	317	315	7	75	88	14
20	118	127	110	120	141	180	197	208	246	296	301	300	311	311	314	320	327	329	328	329	324	312	319	301	15
21	243	226	199	168	179	192	188	217	210	219	234	303	311	314	301	245	258	252	258	258	274	308	290	263	11
22	264	235	216	202	175	182	212	207	201	209	207	260	289	268	313	323	295	286	270	278	49	232	232	231	10
23	172	80	103	106	136	192	191	187	195	333	281	188	326	324	323	312	342	325	329	332	341	7	358	331	16
24	96	99	113	125	153	151	149	147	162	143	174	195	165	168	198	228	297	305	292	325	312	298	332	332	8
25	13	328	284	274	202	249	221	236	261	291	298	296	296	287	285	300	313	318	300	317	355	330	318	345	15
26	3	333	301	283	270	246	252	229	223	201	193	216	282	298	307	304	305	313	318	305	310	311	320	326	15
27	339	0	53	82	90	106	115	123	16	3	182	197	198	209	293	316	284	304	316	315	313	307	308	307	15
28	307	308	301	305	286	273	218	128	137	126	139	148	142	225	288	310	283	240	285	322	264	309	318	39	14
29	39	77	67	289	262	302	199	273	285	282	291	309	311	324	330	333	308	320	338	341	307	291	291	8	15
30	278	328	332	328	58	90	117	126	117	102	93	92	108	233	323	335	323	303	327	337	337	299	45	58	16
PV	15	15	15	14	14	14	15	(VA)	16	16	15	13	14	14	15	15	15	15	15	15	15	15	15	15	15

WIND DIRECTION [CC:02]

LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHAPI MTNS, CA.
SITE 5

SEP. 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 27/AUG/80 *
*****
* SUBJECT TO *
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CLOCK HOUR [LOCAL STANDARD TIME]

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	ENE	N	N	NE	NE	ENE	S	W	W	WSW	WSW	WSW	W	WNW	WNW	WNW	WNW	WNW	NW	NW	WNW	W	WNW	WNW	W
2	NW	NW	NW	NNW	N	NNE	NNW	NNW	NNW	NNW	NNW	NW	NW	NW	NNW	NNW	NNW	NNW	NNW	NW	NW	NW	NNW	NNW	NNW
3	W	WNW	WNW	WNW	WNW	E	NNE	ENE	NNW	NNW	W	W	WNW	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	NW	NW	NNW	NNW
4	NW	NW	NNW	WNW	WNW	NNW	NW	NNW	NNW	ENE	W	W	WNW	WNW	WNW	WNW	W	WNW	W	WNW	WNW	WNW	NNW	NNW	NNW
5	WNW	WNW	NNE	ENE	N	NW	NNE	NNW	NNW	NE	SE	E	W	WSW	W	W	WNW	WNW	WNW	WNW	NW	W	WNW	WNW	WNW
6	NE	NW	NW	NW	NNW	NNE	NNW	NNW	NNW	NE	ESE	SE	ESE	SE	SE	SW	W	WNW	WNW	W	W	NNW	NNE	N	NNW
7	N	W	NNW	NNW	NNW	NNW	NE	E	SE	SE	E	ESE	SE	SSE	SSE	SSE	SSE	S	NW	NW	NNW	NNW	NW	NNW	[VA]
8	WNW	WNW	NW	N	NW	NNW	NE	ESE	SE	WSW	WSW	W	W	W	WNW	WNW	WNW	NW	NNW	NNW	NW	NNW	NNW	NNW	NNW
9	WNW	NNW	NW	WNW	NNW	E	ESE	ESE	ESE	ESE	SE	ESE	SSE	WSW	NNW	NW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW
10	NNW	E	WSW	W	W	W	W	SSW	WSW	WSW	W	WNW	NW	NW	NW	NW	NW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW
11	NNW	NNW	NNW	N	SSW	W	NNW	NNW	NNW	N	N	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW
12	NNW	NNW	NW	NNW	NNW	NNW	NW	NNE	ESE	ESE	ESE	SE	E	F	WNW	WNW	NW	NW	NW	NNW	NW	NW	NNW	NNW	NNW
13	NW	NW	NW	NNW	NW	NW	E	NE	NNE	NNW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW
14	NW	NW	NW	NW	NW	NNW	NW	NNW	NNW	E	SE	E	WNW	WNW	WNW	WNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW
15	NNW	E	E	E	ESE	ESE	E	N	N	N	ESE	NNE	NNE	NNE	NNE	NE	NNE	N	NE	NNW	NNW	NNW	NNW	NNW	NNW
16	ESE	SE	SE	SE	ENE	NNW	NW	NW	NNW	NNW	NNE	SW	WSW	WSW	WSW	W	NW	NNW	NNW	SSW	SSW	NNW	NW	NNW	NNW
17	WNW	WNW	WNW	WNW	NW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW
18	NNW	WNW	NW	NNW	NW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW
19	SSW	W	WNW	WNW	WNW	WNW	WNW	WNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW
20	ESE	SE	ESE	ESE	SE	S	SSW	SSW	WSW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW
21	WSW	SW	SSW	SSW	S	SSW	S	SW	SSW	SW	SW	NNW	NW	NW	WNW	WSW	WSW	WSW	WSW	WSW	W	NNW	NNW	NNW	NNW
22	W	SW	SW	SSW	S	S	SSW	SSW	SSW	SSW	SSW	W	NNW	W	NNW	NNW	NNW	NNW	W	W	NE	SW	SW	SSW	SSW
23	S	E	ESE	ESE	SE	SSW	S	S	SSW	NNW	W	S	NW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	N	N	NNW	NNW
24	E	E	ESE	SE	SSE	SSE	SSE	SSE	SSE	SE	S	SSW	SSE	SSE	SSW	SW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	SSE
25	NNE	NNW	WNW	W	SSW	WSW	SW	SW	W	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW
26	N	NNW	WNW	WNW	W	WSW	WSW	SW	SW	SSW	SSW	SW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW
27	NNW	N	NE	E	E	ESE	ESE	NNE	N	S	SSW	SSW	SSW	SSW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW
28	NW	NW	WNW	NW	NNW	W	SW	SE	SE	SE	SE	SSE	SE	SW	NNW	NNW	NNW	WSW	NNW	NNW	NNW	NNW	NNW	NNW	NNW
29	NE	ENE	ENE	WNW	W	NNW	SSW	W	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW
30	W	NNW	NNW	NNW	ENE	E	ESE	SE	ESE	ESE	E	F	ESE	SW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW
PV	NW	NW	NW	WNW	WNW	WNW	NW	[VA]	NNW	NNW	NNW	W	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW

B-69

WIND DIRECTION (CC:02)
DEGREES
LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHAPI MTNS, CA.
SITE 5

OCT, 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 27/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	58	28	40	35	39	47	49	98	111	96	95	93	111	136	143	148	151	130	55	64	76	51	311	306	3
2	303	307	0	9	348	3	9	87	105	88	81	88	118	142	141	143	167	276	292	299	305	304	311	321	15
3	314	316	327	334	333	349	4	343	16	76	115	124	119	203	227	192	191	190	19	17	343	327	316	320	16
4	314	342	345	332	334	340	325	231	199	168	190	220	209	228	232	236	267	294	295	283	304	317	325	321	15
5	320	319	307	345	14	28	45	46	116	119	132	124	128	338	305	298	300	299	295	325	313	306	312	319	15
6	335	329	306	28	107	110	111	109	58	270	285	293	294	299	301	306	314	321	332	353	50	329	330	328	16
7	298	302	291	303	60	75	93	261	247	258	271	254	277	295	298	305	324	317	308	309	308	304	304	303	14
8	306	304	309	326	342	319	308	288	253	234	257	258	294	293	295	297	287	272	275	273	256	274	289	299	14
9	288	326	325	356	0	335	295	298	149	113	111	115	116	115	108	112	118	57	355	351	344	325	329	3	(VA)
10	17	26	60	73	65	68	75	116	120	117	112	109	122	107	110	241	288	306	298	290	300	299	302	289	(VA)
11	281	249	242	240	241	263	273	241	242	254	258	253	262	268	299	284	300	332	334	331	340	318	302	352	13
12	311	325	314	312	350	296	42	69	97	115	273	286	291	291	289	291	298	293	243	235	254	356	336	92	14
13	243	247	264	291	296	264	256	247	261	245	232	259	282	294	279	273	256	265	251	259	265	252	266	254	13
14	253	257	254	299	279	258	265	289	288	269	280	285	275	277	275	289	271	285	277	246	248	265	298	288	13
15	261	232	305	313	298	312	270	289	72	239	279	292	302	301	309	319	341	338	328	336	344	335	326	340	15
16	342	346	1	356	344	341	341	339	336	294	288	292	294	292	294	316	325	334	336	322	337	328	334	343	16
17	333	336	344	334	336	340	26	15	298	337	337	329	319	333	327	319	318	316	309	314	329	276	299	274	15
18	228	245	243	246	222	224	242	272	272	286	293	300	295	297	302	296	293	285	293	303	295	300	296	272	14
19	234	236	230	241	244	245	237	223	234	222	225	230	233	231	232	232	232	236	225	220	222	235	232	264	12
20	224	233	237	232	267	258	290	288	296	291	289	288	291	302	292	291	293	294	297	294	296	306	311	303	14
21	294	277	279	287	274	288	160	275	292	75	135	114	110	109	94	86	69	28	320	330	356	74	99	50	14
22	18	20	20	39	56	58	85	117	101	92	90	97	102	98	104	103	81	35	36	16	3	300	5	341	5
23	38	47	39	42	354	22	61	87	109	93	90	90	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(VA)
24	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
25	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
26	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
27	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
28	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
29	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
30	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
31	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )

WIND DIRECTION 100:021

LEVEL HEIGHT : 10 METERS

RATTELLE WIND STUDY, #505
TEHACHAPI MTNS, CA.

SITE : 5

OCT, 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 27/AUG/80 *
*****
* SURJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	ENE	NNE	NE	NE	NE	NE	NE	E	ESE	E	E	E	ESE	SE	SE	SSE	SSE	SE	NE	ENE	ENE	NE	NW	NW	NE
2	WNW	NW	N	N	NNW	N	N	E	ESE	E	E	E	ESE	SE	SE	SE	SSE	W	WNW	WNW	NW	NW	NW	NW	NW
3	NW	NW	NNW	NNW	NNW	N	N	NNW	NNE	ENE	ESE	SE	ESE	SSW	SW	SSW	S	S	NNE	NNE	NNW	NNW	NW	NW	NNW
4	NW	NNW	NNW	NNW	NNW	NNW	NW	SW	SSW	SSE	S	SW	SSW	SW	SW	SW	W	WNW	WNW	WNW	NW	NW	NW	NW	NW
5	NW	NW	NW	NNW	NNE	NNE	NE	NE	ESE	ESE	SE	SE	SE	NNW	NW	WNW	WNW	WNW	WNW	NW	NW	NW	NW	NW	NW
6	NNW	NNW	NW	NNE	ESE	ESE	ESE	ESE	ENE	W	WNW	WNW	WNW	WNW	NW	NW	NW	NW	NW	N	NE	NNW	NNW	NNW	NNW
7	WNW	WNW	WNW	WNW	ENE	ENE	E	W	WSW	WSW	W	WSW	W	WNW	WNW	NW	NW	NW	NW	NW	NW	NW	NW	WNW	WNW
8	NW	NW	NW	NW	NNW	NW	NW	WNW	WSW	SW	WSW	WSW	WNW	WNW	WNW	WNW	WNW	W	W	W	WSW	W	WNW	WNW	WNW
9	WNW	NW	NW	N	N	NNW	WNW	WNW	SSE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ENE	N	N	NNW	NW	NNW	N	[VA]
10	NNE	NNE	ENE	ENE	ENE	ENE	ENE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	WSW	WNW	NW	WNW	WNW	WNW	WNW	WNW	WNW	[VA]
11	W	WSW	WSW	WSW	WSW	W	W	WSW	WSW	WSW	WSW	W	W	WNW	WNW	WNW	NNW	NNW	NNW	NNW	NNW	NNW	NW	NNW	W
12	NW	NW	NW	NW	N	WNW	NE	ENE	E	ESE	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WSW	WSW	N	NNW	E	WNW	
13	WSW	WSW	W	WNW	WNW	W	WSW	WSW	W	WSW	SW	W	WNW	WNW	W	W	WSW	W	WSW	W	W	WSW	W	WSW	W
14	WSW	WSW	WSW	WNW	W	WSW	W	WNW	WNW	W	W	WNW	W	W	W	WNW	W	WNW	W	WSW	WSW	W	WNW	WNW	W
15	W	SW	NW	NW	WNW	NW	W	WNW	ENE	WSW	W	WNW	WNW	WNW	NW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NW	NNW	NW
16	NNW	NNW	N	N	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW
17	NNW	NNW	NNW	NNW	NNW	NNW	NNE	NNE	WNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW
18	SW	WSW	WSW	WSW	SW	SW	WSW	W	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	NNW
19	SW	SW	SW	WSW	WSW	WSW	WSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	W	WSW
20	SW	SW	WSW	SW	W	WSW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NNW	NW	NNW	NNW
21	WNW	W	W	WNW	W	WNW	SSE	W	WNW	ENE	SE	ESE	ESE	ESE	E	E	ENE	NNE	NW	NNW	N	ENE	E	NE	NNW
22	NNE	NNE	NNE	NE	NE	ENE	E	ESE	E	E	E	E	ESE	E	ESE	ESE	E	NE	NE	NNE	N	WNW	N	NNW	E
23	NE	NE	NE	NE	N	NNE	ENE	E	ESE	E	E	E	E	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[VA]
24	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]
25	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]
26	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]
27	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]
28	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]
29	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]
30	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]
31	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[RF]	[ ]

B-71

WIND DIRECTION (CC:02)
DEGREES
LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHAPI MTS, CA.
SITE 5

NOV, 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 27/AUG/80. *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
2	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
3	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
4	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
5	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
6	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
7	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
8	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
9	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
10	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
11	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
12	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
13	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
14	105	114	101	119	107	97	78	104	161	167	151	144	141	142	141	134	140	115	71	66	66	166	133	116	7
15	92	121	111	69	68	71	99	118	106	128	164	145	145	144	134	138	127	118	73	68	234	257	266	326	6
16	352	15	89	50	22	29	49	90	115	161	164	142	142	142	151	144	135	107	58	34	23	10	350	327	(VA)
17	344	12	340	342	329	182	291	288	276	323	323	327	327	322	318	314	299	302	304	308	312	303	314	313	15
18	313	330	337	325	337	341	341	334	335	326	338	329	327	325	321	316	321	318	305	316	328	331	328	327	16
19	321	332	334	326	340	341	329	347	347	5	336	339	321	334	335	321	307	258	340	353	346	344	196	336	16
20	327	329	358	45	356	50	47	38	107	142	155	149	124	134	128	138	154	328	8	249	268	64	57	77	7
21	16	82	45	344	235	115	112	117	95	121	143	130	132	131	142	132	134	123	42	41	53	22	24	64	6
22	222	223	222	292	41	85	77	56	61	90	152	147	181	146	140	148	152	142	286	284	274	265	255	260	13
23	277	304	309	314	313	281	274	318	332	335	345	332	351	355	342	357	36	356	8	262	272	293	307	324	16
24	326	289	282	287	10	252	336	321	349	330	322	289	299	305	316	303	295	300	309	313	311	301	303	279	15
25	280	285	299	299	303	303	304	299	300	282	275	259	264	309	316	316	315	311	288	280	298	304	288	283	14
26	302	320	318	317	321	317	326	317	321	318	321	312	305	310	313	304	308	311	307	303	287	296	306	298	15
27	297	42	323	333	351	65	67	73	89	118	139	126	120	120	116	114	108	96	56	63	73	71	67	70	4
28	80	133	88	124	95	79	79	74	91	138	117	117	126	121	119	114	96	96	61	69	71	72	67	110	5
29	141	140	102	128	108	89	89	80	80	131	148	129	125	134	128	134	132	109	40	46	57	221	224	338	7
30	23	358	14	70	29	18	7	8	15	7	354	149	134	138	121	113	117	88	39	49	45	16	332	338	2
PV	15	15	15	15	1	5	5	15	5	7	8	7	7	7	7	7	7	6	4	4	4	14	15	15	15

B-72

WIND DIRECTION (CC:02)

LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHAPI MTNS, CA.
SITE 5

NOV, 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 27/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
2	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
3	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
4	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
5	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
6	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
7	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
8	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
9	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
10	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
11	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
12	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	( )
13	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	(RF)	S	SE	E	ENE	E	SW	WSW	ESE	ESE	E
14	ESE	ESE	E	ESE	ESE	E	ENE	ESE	SSE	SSE	SSE	SE	SE	SE	SE	SE	SE	FSE	ENE	ENE	ENE	SSE	SE	ESE	SE
15	E	ESE	ESE	ENE	ENE	ENE	E	ESE	ESE	SF	SSE	SE	SE	SE	SE	SE	SE	ESE	ENE	ENE	SW	WSW	W	NW	ESE
16	N	NNE	E	NE	NNE	NNE	NE	E	ESE	SSE	SSE	SE	SE	SE	SSE	SE	SE	ESE	ENE	NE	NNE	N	N	NNW	(VA)
17	NNW	NNE	NNW	NNW	NNW	S	WNW	WNW	W	NW	NW	NNW	NNW	NW	NW	NW	WNW	WNW	NW	NW	NW	NNW	NW	NW	NW
18	NW	NNW	NNW	NW	NNW	NNW	NNW	NNW	NNW	NW	NNW	NNW	NNW	NW	NW	NW	NW	NW	NW	NNW	NNW	NNW	NNW	NNW	NNW
19	NW	NNW	NNW	NW	NNW	NNW	NNW	NNW	NNW	N	NNW	NNW	NNW	NNW	NNW	NW	WSW	NNW	N	NNW	NNW	SSW	NNW	NNW	NNW
20	NNW	NNW	N	NE	N	NE	NE	WE	ESE	SE	SSE	SSE	SF	SE	SE	SE	SSE	NNW	N	WSW	W	ENE	ENE	ENE	SE
21	NNE	E	NE	NNW	SW	ESE	ESE	ESE	E	ESE	SE	SE	SE	SE	SE	SE	SE	ESE	NE	NE	NE	NNE	NNF	ENE	ESE
22	SW	SW	SW	WNW	NE	E	ENE	NE	ENE	E	SSE	S	S	SE	SE	SSE	SSE	SE	WNW	WNW	W	W	WSW	W	W
23	W	NW	NW	NW	NW	W	W	NW	NNW	NNW	NNW	NNW	N	N	NNW	N	NE	N	N	W	W	WNW	NW	NW	NNW
24	NW	WNW	WNW	WNW	N	WSW	NNW	NW	N	NNW	NW	WNW	WNW	NW	NW	WNW	WNW	WNW	NW	NW	WNW	WNW	W	NW	NW
25	W	WNW	WNW	WNW	WNW	WNW	NW	WNW	WNW	WNW	W	W	W	NW	NW	NW	NW	NW	WNW	W	WNW	NW	WNW	WNW	WNW
26	WNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	WNW	WNW	WNW	NW	WNW	NW	NW
27	WNW	NE	NW	NNW	N	ENE	ENE	ENE	E	ESE	SE	SE	ESE	ESE	ESE	ESE	ESE	E	NE	FNE	ENE	ENE	ENE	ENE	ENE
28	E	SE	E	SE	E	E	E	ENE	E	SE	ESE	ESE	SE	ESE	ESE	ESE	E	E	ENE	ENE	ENE	ENE	ENE	ESE	E
29	SE	SE	ESE	SE	ESE	E	E	E	E	SE	SSE	SF	SE	SE	SE	SE	SE	ESE	NE	NE	ENE	SW	SW	NNW	SE
30	NNE	N	NNE	ENE	NNE	NNE	N	N	NNE	N	N	SSE	SE	SE	ESE	FSE	FSE	E	NE	NF	NE	NNE	NNW	NNW	NNE
PV	NW	NW	NW	NW	N	E	E	NW	E	SF	SSE	SF	SE	SE	SE	SE	SE	FSE	FNF	FNF	FNF	FNF	WNW	NW	NW

WIND DIRECTION (CC102)

DEGREES

LEVEL HEIGHT : 10 METERS

BATTLE WIND STUDY, #505

TEHACHAPI MTS, CA.

SITE 5

DEC, 1979

AEROVIRONMENT INC.

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* PRELIMINARY DATA *

* AS OF 27/AUG/80 *

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* SUBJECT TO *

* REVISION *

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CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	174	202	234	257	241	182	243	209	177	180	196	319	308	311	300	305	304	300	267	229	245	231	243	248	12
2	243	231	212	255	287	245	192	210	228	198	198	258	331	330	275	320	297	288	256	244	233	187	186	176	10
3	247	240	237	247	250	243	245	230	215	215	293	311	297	292	303	293	293	299	245	238	238	242	255	248	12
4	249	250	239	218	212	189	200	194	189	182	190	326	302	299	295	313	323	149	100	89	90	71	72	73	9
5	72	82	106	190	43	236	112	100	156	157															6
6	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
7	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
8	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
9	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
10	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
11	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
12	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
13	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
14	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
15	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
16	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
17	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
18	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
19	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
20	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
21	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
22	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
23	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
24	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
25	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
26	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
27	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
28	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
29	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
30	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
31	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )

B-74

WIND DIRECTION (CC:02)

LEVEL HEIGHT : 10 METERS

PATTELLE WIND STUDY, #505
TEHACHAPI MTNS, CA.
SITE 5

DEC, 1979

AEROVIRONMENT INC.

*****
*
* PRELIMINARY DATA *
* AS OF 27/AUG/80 *
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*
* SUBJECT TO *
* REVISION *
*
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CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	S	SSW	SW	WSW	WSW	S	WSW	SSW	S	S	SSW	NW	NW	NW	WNW	NW	NW	WNW	W	SW	WSW	SW	WSW	WSW	WSW
2	WSW	SW	SSW	WSW	WNW	WSW	SSW	SSW	SW	SSW	SSW	WSW	NNW	NNW	W	NW	WNW	WNW	WSW	WSW	SW	S	S	S	SSW
3	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	WNW	NW	WNW	WNW	WNW	WNW	WNW	WNW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
4	WSW	WSW	WSW	SW	SSW	S	SSW	SSW	S	S	S	NW	WNW	WNW	WNW	NW	NW	SSE	E	E	E	ENE	ENE	ENE	S
5	ENE	E	ESE	S	NE	SW	ESE	E	SSE	SSE															ESE
6	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
7	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
8	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
9	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
10	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
11	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
12	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
13	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
14	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
15	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
16	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
17	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
18	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
19	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
20	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
21	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
22	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
23	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
24	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
25	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
26	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
27	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
28	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
29	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
30	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
31	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )

B-76

JUN, 1979

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*                                     *
* PRELIMINARY DATA                 *
* AS OF 27/AUG/80                  *
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*                                     *
* SUBJECT TO                        *
* REVISION                         *
*                                     *
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[illegible]

LEVEL HEIGHT : 10 METERS

JUN, 1979

AEROVIRONMENT INC.

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*****
*
* PRELIMINARY DATA
* AS OF 27/AUG/80
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*****
*
* SUBJECT TO
* REVISION
*
*****
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CLOCK HOUR (LOCAL STANDARD TIME)

B-73

[illegible]

WIND DIRECTION (CC102)
DEGREES
LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHAPI MTNS, CA.
SITE 9

JUL, 1979

AEROVIRONMENT INC.

*****
*
* PRELIMINARY DATA *
* AS OF 27/AUG/80 *
*
*****
*
* SUBJECT TO *
* REVISION *
*
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV		
1	314	313	314	315	313	314	314	316	315	316	316	317	318	313	312	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	15	
2	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
3	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
4	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
5	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
6	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
7	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
8	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
9	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
10	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
11	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
12	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
13	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	313	321	319	319	320	318	320	318	320	318	15
14	319	319	318	320	320	319	320	318	319	320	318	320	320	317	317	317	315	318	317	315	318	317	318	320	318	15	
15	319	318	318	318	319	320	323	326	326	325	326	328	326	323	319	314	311	308	308	304	293	(IM)	(IM)	(IM)	(IM)	15	
16	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	15	
17	308	308	304	305	308	309	307	306	307	310	308	311	310	313	312	313	313	311	311	308	306	304	303	303	303	15	
18	302	299	298	297	302	304	306	303	301	300	302	301	300	296	300	300	298	301	296	295	305	309	310	306	306	14	
19	303	304	305	304	304	294	317	322	321	322	320	321	324	318	318	318	317	318	318	318	316	318	316	316	316	15	
20	316	301	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	14	
21	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
22	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
23	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
24	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
25	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
26	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	299	290	298	303	301	302	302	14	
27	295	293	292	295	300	307	307	307	303	306	306	304	298	304	302	303	302	301	297	297	297	301	298	300	14		
28	302	299	300	301	295	299	304	303	302	302	304	309	308	309	309	309	313	309	314	310	312	306	307	304	15		
29	306	308	302	304	305	315	318	318	309	308	309	297	294	296	293	296	293	293	299	299	299	308	307	309	15		
30	311	311	308	303	302	301	300	317	314	312	321	322	316	307	307	304	303	313	316	320	320	319	317	316	15		
31	318	317	318	316	315	313	313	314	311	315	318	317	313	316	315	313	314	316	318	317	318	320	320	319	319	15	

WIND DIRECTION (CC1021)

LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHAPI MTNS, CA.
SITE 9

JUL, 1979

AEROVIRONMENT INC.

*****
*
* PRELIMINARY DATA *
* AS OF 27/AUG/80 *
*
*****
*
* SUBJECT TO *
* REVISION *
*
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	NW
2	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
3	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
4	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
5	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
6	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
7	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
8	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
9	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
10	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
11	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
12	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
13	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	NW	NW	NW	NW	NW	NW	NW	NW	NW
14	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
15	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
16	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	NW	NW	NW
17	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
18	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW
19	WNW	NW	NW	NW	NW	WNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
20	NW	WNW	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	WNW
21	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
22	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
23	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
24	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
25	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
26	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	WNW	WNW	WNW	WNW	WNW	WNW	WNW
27	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	WNW	NW	NW	NW	WNW	NW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW
28	WNW	WNW	WNW	WNW	WNW	WNW	NW	WNW	WNW	WNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
29	NW	NW	WNW	NW	NW	NW	NW	NW	NW	NW	NW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	NW
30	NW	NW	NW	WNW	WNW	WNW	WNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	WNW	NW	NW	NW	NW	NW	NW	NW	NW
31	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW

WIND DIRECTION (CC102)
DEGREES
LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHAPI MTNS, CA.
SITE 9

AUG, 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 27/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	319	318	322	323	323	318	319	319	316	318	318	316	316	315	315	315	314	315	316	316	315	315	315	316	15
2	319	319	321	319	316	318	317	314	314	314	313	311	309	309	307	309	310	311	311	312	314	316	316	316	15
3	315	315	317	317	320	316	318	314	311	315	312	308	305	303	304	307	308	308	305	307	308	307	310	311	15
4	310	307	308	315	314	315	315	311	310	310	312	308	305	308	307	308	307	306	305	304	308	313	313	309	15
5	309	310	309	308	312	317	320	318	321	318	313	315	314	314	311	313	316	320	317	322	324	322	317	314	15
6	314	317	313	309	307	307	309	307	306	306	306	307	311	315	314	318	316	318	314	313	312	312	312	313	15
7	313	311	311	312	313	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	15
8	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
9	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
10	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
11	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	327	323	314	313	309	308	309	306	303	304	309	313	310	311	311	310	305	15
12	298	292	293	285	285	288	286	286	286	290	287	289	294	297	320	311	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	14
13	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
14	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
15	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
16	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
17	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
18	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
19	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
20	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
21	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
22	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
23	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
24	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
25	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
26	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
27	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
28	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
29	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
30	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
31	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )

B-80

LEVEL HEIGHT : 10 METERS

AUG, 1979

AEROVIRONMENT INC.

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*
*   PRELIMINARY DATA
*   AS OF 27/AUG/80
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*
*   SUBJECT TO
*   REVISION
*
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CLOCK HOUR (LOCAL STANDARD TIME)

B-81

[illegible]

WIND DIRECTION (CC:02)
DEGREES
LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHAPI MTS, CA.
SITE 9

SEP, 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 27/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
2	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
3	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
4	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
5	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
6	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
7	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
8	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
9	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
10	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
11	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
12	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
13	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
14	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	297	306	305	297	294	297	307	304	301	302	297	293	295	295	293	296	14
15	301	302	303	297	310	325	341	58	83	92	95	94	97	102	98	101	101	100	97	103	103	340	309	322	5
16	314	294	301	307	317	88	78	59	79	49	64	66	82	88	91	98	106	98	96	9	310	(IM)	(IM)	(IM)	5
17	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
18	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
19	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
20	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
21	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	227	209	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	10
22	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	177	183	204	229	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	230	(VA)
23	221	178	155	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	131	141	149	155	189	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	8
24	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
25	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	157	168	172	189	192	228	9	
26	243	233	242	207	198	191	193	193	193	174	158	162	152	189	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	9
27	72	66	66	67	68	69	220	250	252	241	230	200	193	180	176	175	161	115	122	231	139	103	130	184	9
28	180	201	202	186	176	182	192	193	183	168	165	157	166	154	137	137	139	140	142	147	142	129	99	105	8
29	146	184	187	206	201	190	184	196	197	187	181	168	168	175	164	156	137	123	109	101	109	112	110	116	9
30	130	144	176	173	174	154	153	171	176	179	131	94	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	9
PV	(VA)	9	9	9	10	9	10	10	9	9	8	8	8	9	5	5	7	6	6	8	6	6	14	(VA)	9

B-82

WIND DIRECTION (CC102)

LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHAPI MTS, CA.
SITE 9

SEP, 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 27/AUG/80 *
*****
* SURJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

B-83

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
2	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
3	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
4	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
5	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
6	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
7	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
8	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
9	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
10	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
11	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
12	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
13	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
14	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	WNW	NW	NW	WNW	WNW	WNW	NW	NW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW
15	WNW	WNW	WNW	WNW	NW	NW	NNW	ENE	E	E	E	E	E	ESE	E	E	E	E	E	ESE	ESE	NNW	NW	NW	E
16	NW	WNW	WNW	NW	NW	E	ENE	ENE	E	NE	ENE	ENE	E	E	E	ESE	E	E	E	E	N	NW	(IM)	(IM)	E
17	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
18	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
19	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
20	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
21	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	SW	SSW	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	SSW
22	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	S	S	SSW	SW	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	SW	(VA)
23	SW	S	SSE	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	SE	SE	SSE	SSE	S	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	SSE
24	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
25	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	SSE	SSE	S	S	SSW	SW	S
26	WSW	SW	WSW	SSW	SSW	S	SSW	SSW	SSW	S	SSE	SSE	SSE	S	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	S
27	ENE	ENE	ENE	ENE	ENE	ENE	SW	WSW	WSW	WSW	SW	SSW	SSW	S	S	S	SSE	ESE	ESE	SW	SE	ESE	SE	S	S
28	S	SSW	SSW	S	S	S	SSW	SSW	S	SSE	SSE	SSE	SSE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SSE
29	SE	S	S	SSW	SSW	S	S	SSW	SSW	S	S	SSE	SSE	S	SSE	SSE	SE	ESE	ESF	F	ESE	ESE	ESE	ESE	S
30	SE	SE	S	S	S	SSE	SSE	S	S	S	SE	E	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	S
PV	(VA)	S	S	S	SSW	S	SSW	SSW	S	S	SSE	SSE	SSE	S	F	F	SE	FSE	FSE	SSE	ESE	ESE	WNW	(VA)	S

WIND DIRECTION (CC:02)
DEGREES
LEVEL HEIGHT : 10 METERS

RATTELLE WIND STUDY, #505
TEHACHAPI MTNS, CA.
SITE 9

OCT, 1979

AEROVIRONMENT INC.

*****
*
* PRELIMINARY DATA *
* AS OF 27/AUG/80 *
*
*****
*
* SUBJECT TO *
* REVISION *
*
*****

CLOCK HOUR [LOCAL STANDARD TIME]

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV	
1	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	( )	
2	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	( )	
3	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
4	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
5	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
6	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
7	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
8	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
9	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
10	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
11	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
12	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
13	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
14	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
15	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
16	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
17	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
18	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
19	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
20	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
21	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
22	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
23	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )	
24	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(PF)	(PF)	259	260	260	261	261	260	260	261	261	13
25	259	258	257	252	237	232	238	237	236	214	234	206	234	235	236	241	311	307	310	309	320	318	316	316	12	
26	310	312	310	312	308	309	309	312	309	327	320	327	319	325	303	294	294	295	298	299	302	305	305	299	15	
27	301	306	311	317	328	354	320	311	301	312	318	307	309	328	305	312	302	300	314	302	302	304	306	302	15	
28	302	294	302	306	305	308	310	310	308	306	309	314	317	315	321	319	313	310	313	314	317	323	322	317	15	
29	319	321	320	316	320	319	319	318	316	313	311	293	293	296	319	320	323	325	326	320	322	326	320	312	15	
30	303	307	328	315	321	326	84	131	127	129	142	152	81	160	135	333	311	307	307	303	317	315	313	302	15	
31	304	302	300	301	297	296	305	310	311	310	311	312	307	309	311	312	311	317	312	316	316	312	311	309	15	

WIND DIRECTION (CC:02)

LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHAPI MTNS, CA.
SITE : 9

OCT, 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 27/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR [LOCAL STANDARD TIME]

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	( )
2	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	( )
3	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(LI)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
4	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
5	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
6	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
7	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
8	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
9	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
10	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
11	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
12	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
13	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
14	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
15	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
16	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
17	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
18	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
19	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
20	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
21	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
22	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
23	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	( )
24	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(IM)	(PF)	(PF)	W	W	W	W	W	W	W	W	W
25	W	WSW	WSW	WSW	WSW	SW	WSW	WSW	SW	SW	SW	SSW	SW	SW	SW	WSW	NW	NW	NW	NW	NW	NW	NW	NW	WSW
26	NW	NW	NW	NW	NW	NW	NW	NW	NW	NNW	NW	NNW	NW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NW
27	NNW	NW	NW	NW	NNW	N	NW	NW	NNW	NW	NW	NW	NW	NNW	NW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NW
28	NNW	NNW	NNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
29	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NNW	NNW	NNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
30	NNW	NW	NNW	NW	NW	NW	E	SE	SE	SE	SE	SSE	E	SSE	SE	NNW	NW	NW	NW	NNW	NW	NW	NNW	NW	
31	NW	NNW	NNW	NNW	NNW	NNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW

B-85

WIND DIRECTION (CC102)
DEGREES
LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEWACHAPI MTS, CA.
SITE 9

NOV, 1979

AFROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 27/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

B-86

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	310	309	312	310	312	326	342	352	147	160	158	152	154	157	157	159	159	158	161	168	163	163	163	158	8
2	154	151	142	159	163	165	163	158	162	157	161	157	153	156	166	161	155	155	161	168	172	220	144	352	8
3	1	358	5	325	251	254	256	257	259	258	256	258	244	218	226	234	235	201	226	251	334	323	319	312	12
4	310	319	322	306	304	304	316	316	318	316	320	312	315	306	307	313	312	305	317	317	317	317	321	319	15
5	311	314	320	316	314	310	315	324	324	334	341	23	145	154	163	161	168	167	159	162	160	162	162	167	8
6	165	162	162	165	163	165	162	160	163	164	170	175	171	166	164	158	165	161	158	160	161	186	205	205	9
7	198	173	173	188	169	165	166	182	183	181	189	217	203	190	174	162	173	165	180	186	164	182	172	172	9
8	158	206	206	217	222	199	259	313	304	302	306	309	310	308	307	307	314	315	318	319	320	320	312	310	15
9	353	332	317	307	309	309	314	313	316	315	317	316	314	319	315	317	318	318	319	313	317	323	322	318	16
10	317	317	318	315	319	340	294	260	260	203	151	143	138	138	132	136	143	137	241	236	292	291	297	314	15
11	306	313	273	261	288	304	304	299	308	316	322	318	316	310	94	125	139	137	135	135	135	131	132	133	15
12	134	132	134	130	122	126	126	131	127	125	128	133	136	133	133	133	129	129	129	127	119	123	121	123	7
13	126	119	124	123	120	117	120	124	125	125	123	168	167	161	168	164	166	163	162	162	166	167	164	161	8
14	163	160	163	155	155	157	159	162	161	158	163	166	163	164	164	167	165	166	166	165	163	158	155	158	8
15	156	159	157	153	153	157	156	156	148	151	159	159	162	161	166	172	167	169	168	170	168	162	157	156	8
16	161	160	159	163	160	155	164	154	154	163	159	163	166	169	170	168	164	174	178	189	187	207	216	225	9
17	243	241	242	296	314	316	320	316	276	301	310	310	299	304	303	309	310	313	311	318	320	313	312	310	14
18	310	308	311	318	318	319	316	313	310	319	321	319	317	312	309	313	317	311	311	311	318	313	312	317	15
19	314	320	320	322	327	323	317	320	336	352	5	11	4	359	330	322	304	298	307	314	324	326	326	326	15
20	310	320	339	344	319	322	316	342	339	328	341	322	325	314	313	313	311	322	19	9	276	265	269	337	16
21	331	309	316	305	310	322	332	354	135	161	157	157	157	153	155	159	162	155	147	145	155	155	159	158	8
22	153	156	153	139	117	146	144	143	140	144	146	153	150	153	148	147	146	144	143	143	149	151	153	147	7
23	222	309	338	319	312	320	322	325	316	312	313	305	300	301	313	313	317	320	317	317	319	319	321	323	15
24	318	315	318	313	313	309	311	324	328	325	317	318	307	307	316	321	324	329	324	328	328	333	331	329	15
25	328	322	324	327	324	323	319	321	325	327	326	321	323	322	323	320	311	313	316	319	322	324	323	322	15
26	323	321	320	316	312	310	302	308	303	303	305	313	316	309	312	311	309	312	318	315	314	318	320	321	15
27	318	317	319	318	318	316	320	318	320	311	310	312	316	321	318	306	303	300	308	327	335	333	336	262	15
28	262	256	147	143	143	149	149	158	155	154	153	158	158	158	153	153	149	148	152	155	154	154	152	155	8
29	160	160	160	157	156	156	159	160	157	161	159	155	150	151	157	152	146	152	146	152	150	152	146	152	8
30	149	151	149	151	145	144	147	146	150	151	155	155	150	67	346	316	318	325	327	326	343	352	11	24	8
PV	15	15	15	15	15	15	15	15	8	8	8	8	8	8	8	8	8	8	8	8 (VA1)	15	15	15	15	

WIND DIRECTION (CC102)

LEVEL HEIGHT : 10 METERS

BATTELLE WIND STUDY, #505
TEHACHAPI MTRS, CA.

SITE 9

NOV, 1979

AEROVIRONMENT INC.

*****
* PRELIMINARY DATA *
* AS OF 27/AUG/80 *
*****
* SUBJECT TO *
* REVISION *
*****

CLOCK HOUR (LOCAL STANDARD TIME)

B-87

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	NW	NW	NW	NW	NW	NW	NNW	N	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE
2	SSE	SSE	SE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	SW	SE	N	SSE	SSE
3	N	N	N	NW	WSW	WSW	WSW	WSW	W	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	SW	WSW	NNW	NW	NW	NW	NW	WSW
4	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
5	NW	NW	NW	NW	NW	NW	NW	NW	NW	NNW	NNW	NNE	SE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE
6	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	S	S	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	SSW	SSW	S
7	SSW	S	S	S	S	SSE	SSE	S	S	S	S	SW	SSW	S	S	SSE	S	SSE	S	S	SSE	S	S	S	S
8	SSE	SSW	SSW	SW	SW	SSW	W	NW	NW	WNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
9	N	NNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NNW
10	NW	NW	NW	NW	NW	NNW	WNW	W	SSW	SSE	SE	SE	SE	SE	SE	SE	SE	SE	WSW	SW	WNW	WNW	WNW	NW	NW
11	NW	NW	W	W	WNW	NW	NW	WNW	NW	NW	NW	NW	NW	NW	E	SE	SE	SE	SE	SE	SE	SE	SE	SE	NW
12	SE	SE	SE	SE	ESE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	ESE	ESE	ESE	ESE	SE
13	SE	ESE	SE	ESE	ESE	ESE	ESE	SE	SE	SE	ESE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE
14	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE
15	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	SSE	S	SSE	S	SSE	SSE	SSE	SSE	SSE
16	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	S	SSE	SSE	S	S	S	S	SSW	SSW	SSW	S
17	WSW	WSW	WSW	WNW	NW	NW	NW	NW	W	WNW	NW	NW	WNW	NW	WNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	WNW
18	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
19	NW	NW	NW	NW	NNW	NW	NW	NW	NNW	N	N	N	N	N	NNW	NW	NW	WNW	NW	NW	NW	NW	NW	NW	NW
20	NW	NW	NNW	NNW	NW	NW	NW	WNW	NNW	NNW	NNW	NW	NW	NW	NW	NW	NW	NW	NNE	N	W	W	W	NNW	NNW
21	NNW	NW	NW	NW	NW	NW	NNW	N	SE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SE	SSE	SSE	SSE	SSE	SSE
22	SSE	SSE	SSE	SE	ESE	SE	SE	SE	SE	SE	SE	SSE	SSE	SSE	SSE	SE	SE	SE	SE	SE	SSE	SSE	SSE	SSE	SE
23	SW	NW	NNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	WNW	WNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
24	NW	NW	NW	NW	NW	NW	NW	NW	NNW	NW	NW	NW	NW	NW	NW	NW	NW	NNW	NW	NNW	NNW	NNW	NNW	NNW	NW
25	NNW	NW	NW	NNW	NW	NW	NW	NW	NW	NNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
26	NW	NW	NW	NW	NW	NW	WNW	NW	WNW	WNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
27	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	WNW	WNW	NW	NNW	NNW	NNW	NNW	NNW	NW
28	W	WSW	SSE	SE	SE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE
29	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SE	SSE	SE	SSE	SSE	SSE	SE	SSE	SSE
30	SSE	SSE	SSE	SSE	SE	SE	SSE	SE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SE	SSE	SSE
PV	NW	NW	NW	NW	NW	NW	NW	NW	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	VA1	NW	NW	NW	NW

APPENDIX C

Wind Analysis Summary

PROGRAM: FORDSI (VERSION: ADDMSI (14 AUG 79)

AEROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 5

BASED ON DATA AVAILABLE AS OF 24/SEP/80

FOR THE PERIOD AUG ,1979 TO AUG ,1979

DIRECTION	WIND SPEED (MILES/HOUR)										TOTAL	MEAN WS
	00-10	>10-15	>15-20	>20-25	>25-35	>35-45	>45-55	>55-65	>65-75	>75		
N	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
NNE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
NE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ENE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
E	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ESE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
SE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
SSE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
S	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
SSW	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
SW	4.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	3.00
WSW	4.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	6.00
W	12.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	12.00	7.00
WNW	24.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	24.00	5.67
NW	20.00	24.00	.00	.00	.00	.00	.00	.00	.00	.00	44.00	9.91
NMW	8.00	4.00	.00	.00	.00	.00	.00	.00	.00	.00	12.00	9.00
VARI	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTL	72.00	28.00	.00	.00	.00	.00	.00	.00	.00	.00	100.00	8.00

SITE 5

BASED ON DATA AVAILABLE AS OF 24/SEP/80

FOR THE PERIOD SEP ,1979 TO SEP ,1979

DIRECTION	WIND SPEED (MILES/HOUR)										TOTAL	MEAN WS
	00-10	>10-15	>15-20	>20-25	>25-35	>35-45	>45-55	>55-65	>65-75	>75		
N	2.12	.24	.00	.00	.00	.00	.00	.00	.00	.00	2.35	4.25
NNE	1.88	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.88	2.94
NE	.47	.00	.00	.00	.00	.00	.00	.00	.00	.00	.47	3.00
ENE	.24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.24	5.00
E	1.88	.24	.00	.00	.00	.00	.00	.00	.00	.00	2.12	3.44
ESE	1.88	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.88	2.69
SE	1.18	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.18	2.60
SSE	1.65	.00	.24	.00	.00	.00	.00	.00	.00	.00	1.88	5.06
S	.94	.00	.00	.00	.00	.00	.00	.00	.00	.00	.94	1.37
SSW	2.35	.24	.00	.00	.00	.00	.00	.00	.00	.00	2.59	4.09
SW	1.88	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.88	2.75
WSW	3.29	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.29	2.32
W	4.71	.24	.00	.00	.00	.00	.00	.00	.00	.00	4.94	5.07
WNW	18.12	5.88	.24	.00	.00	.00	.00	.00	.00	.00	24.24	7.04
NW	18.82	8.24	4.00	.00	.00	.00	.00	.00	.00	.00	31.06	8.65
NNW	16.00	2.59	.47	.00	.00	.00	.00	.00	.00	.00	19.06	7.34
VARI	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTL	77.41	17.65	4.94	.00	.00	.00	.00	.00	.00	.00	100.00	6.72

TOTAL OCCURS = 425

SITE 5

BASED ON DATA AVAILABLE AS OF 24/SEP/80
 FOR THE PERIOD OCT , 1979 TO OCT , 1979

DIRECTION	WIND SPEED (MILES/HOUR)										TOTAL	MEAN WS
	00-10	>10-15	>15-20	>20-25	>25-35	>35-45	>45-55	>55-65	>65-75	>75		
N	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	.00
NNE	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	.00
NE	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	.00
ENE	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	.00
E	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	.00
ESE	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	.00
SE	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	.00
SSE	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	.00
S	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	.00
SSW	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	.00
SW	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	.00
WSW	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	.00
W	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	.00
WNW	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	.00
NW	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	.00
NNW	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	.00
VARI	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	.00
TOTL	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	.00

TOTAL OCCURS = 0

SITE 5

BASED ON DATA AVAILABLE AS OF 24/SEP/80

FOR THE PERIOD NOV ,1979 TO NOV ,1979

DIRECTION	WIND SPEED (MILES/HOUR)										TOTAL	MEAN WS
	00-10	>10-15	>15-20	>20-25	>25-35	>35-45	>45-55	>55-65	>65-75	>75		
N	3.12	.96	.48	.24	.24	.00	.00	.00	.00	.00	5.04	8.49
NNE	3.36	.00	.00	.24	.00	.00	.00	.00	.00	.00	3.60	3.11
NE	4.56	.24	.00	.00	.00	.00	.00	.00	.00	.00	4.80	4.02
ENE	8.15	.24	.00	.00	.00	.00	.00	.00	.00	.00	8.39	5.38
E	6.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.00	4.09
ESE	8.39	.96	.24	.00	.00	.00	.00	.00	.00	.00	9.59	5.31
SE	11.03	1.68	.00	.00	.00	.00	.00	.00	.00	.00	12.71	5.93
SSE	3.84	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.84	3.25
S	.96	.00	.00	.00	.00	.00	.00	.00	.00	.00	.96	3.54
SSW	.24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.24	7.86
SW	1.92	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.92	.65
WSW	1.20	.24	.00	.00	.00	.00	.00	.00	.00	.00	1.44	5.67
W	1.68	1.44	.96	.00	.00	.00	.00	.00	.00	.00	4.08	11.42
WNW	1.92	4.56	2.40	.24	.00	.00	.00	.00	.00	.00	9.11	12.73
NW	1.20	6.47	5.28	.48	2.40	.00	.00	.00	.00	.00	15.83	15.89
NNW	3.12	2.64	2.64	2.88	1.20	.00	.00	.00	.00	.00	12.47	15.58
VARI	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTL	60.67	19.42	11.99	4.08	3.84	.00	.00	.00	.00	.00	100.00	9.05

TOTAL OCCURS = 417

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 9

FOR THE PERIOD MAY ,1979 TO MAY ,1979

[illegible]

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 9

FOR THE PERIOD JUN , 1979 TO JUN , 1979

WIND SPEED (MILES/HOUR)

[illegible]

SITE 9

BASED ON DATA AVAILABLE AS OF 24/SEP/80

FOR THE PERIOD JUL ,1979 TO JUL ,1979

DIRECTION	WIND SPEED (MILES/HOUR)										TOTAL	MEAN WS
	00-10	>10-15	>15-20	>20-25	>25-35	>35-45	>45-55	>55-65	>65-75	>75		
N	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
NNE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
NE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ENE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
E	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ESE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
SE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
SSE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
S	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
SSW	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
SW	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
WSW	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
W	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
WNW	10.00	6.67	9.63	1.11	.00	.37	.00	.00	.00	.00	27.78	13.09
NW	37.78	17.78	12.96	2.59	.37	.00	.00	.00	.00	.00	71.48	10.39
NNW	.37	.37	.00	.00	.00	.00	.00	.00	.00	.00	.74	10.00
VARI	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTL	48.15	24.81	22.59	3.70	.37	.37	.00	.00	.00	.00	100.00	11.14

TOTAL OCCURS = 270

SITE 9

BASED ON DATA AVAILABLE AS OF 24/SEP/80
 FOR THE PERIOD AUG ,1979 TO AUG ,1979

DIRECTION	WIND SPEED (MILES/HOUR)										TOTAL	MEAN WS
	00-10	>10-15	>15-20	>20-25	>25-35	>35-45	>45-55	>55-65	>65-75	>75		
N	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
NNE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
NE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ENE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
E	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ESE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
SE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
SSE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
S	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
SSW	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
SW	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
WSW	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
W	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
WNW	4.95	3.30	.00	.00	1.10	.00	.00	.00	.00	.00	9.34	9.65
NW	25.82	35.16	23.63	3.30	2.20	.00	.00	.00	.00	.00	90.11	13.66
NNW	.55	.00	.00	.00	.00	.00	.00	.00	.00	.00	.55	10.00
VARI	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTL	31.32	38.46	23.63	3.30	3.30	.00	.00	.00	.00	.00	100.00	13.26

TOTAL OCCURS = 182

SITE 9

BASED ON DATA AVAILABLE AS OF 24/SEP/80

FOR THE PERIOD SEP ,1979 TO SEP ,1979

DIRECTION	WIND SPEED (MILES/HOUR)										TOTAL	MEAN WS
	00-10	>10-15	>15-20	>20-25	>25-35	>35-45	>45-55	>55-65	>65-75	>75		
N	1.32	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.32	6.00
NNE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
NE	1.32	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.32	2.00
ENE	6.58	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.58	3.60
E	10.53	5.26	5.26	2.63	.00	.00	.00	.00	.00	.00	23.68	11.39
ESE	2.63	1.32	1.32	.00	.00	.00	.00	.00	.00	.00	5.26	11.50
SE	2.63	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.63	4.50
SSE	3.95	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.95	6.33
S	5.26	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.26	7.25
SSW	2.63	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.63	8.50
SW	5.26	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.26	7.50
WSW	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
W	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
WNW	13.16	11.84	.00	.00	.00	.00	.00	.00	.00	.00	25.00	9.37
WW	14.47	.00	.00	.00	.00	.00	.00	.00	.00	.00	14.47	5.45
NNW	2.63	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.63	3.50
VARI	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTL	72.37	18.42	6.58	2.63	.00	.00	.00	.00	.00	.00	100.00	8.24

TOTAL OCCURS = 76

SITE 9

BASED ON DATA AVAILABLE AS OF 24/SEP/80
FOR THE PERIOD OCT ,1979 TO OCT ,1979

DIRECTION	WIND SPEED (MILES/HOUR)										TOTAL	MEAN WS
	00-10	>10-15	>15-20	>20-25	>25-35	>35-45	>45-55	>55-65	>65-75	>75		
N	.57	.00	.00	.00	.00	.00	.00	.00	.00	.00	.57	7.00
NNE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
NE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ENE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
E	1.14	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.14	3.75
ESE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
SE	2.27	.57	.00	.00	.00	.00	.00	.00	.00	.00	2.84	6.00
SSE	1.14	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.14	5.87
S	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
SSW	.57	.00	.00	.00	.00	.00	.00	.00	.00	.00	.57	8.63
SW	2.84	1.14	.00	.00	.00	.00	.00	.00	.00	.00	3.98	8.02
WSW	1.70	3.41	.00	.00	.00	.00	.00	.00	.00	.00	5.11	10.81
W	.57	3.41	.00	.00	.00	.00	.00	.00	.00	.00	3.98	10.73
WNW	1.14	5.68	8.52	1.14	.00	.00	.00	.00	.00	.00	16.48	15.53
NW	7.95	6.25	25.00	7.95	13.07	.57	.00	.00	.00	.00	60.80	18.92
NNW	1.70	.57	1.14	.00	.00	.00	.00	.00	.00	.00	3.41	11.88
VARI	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTL	21.59	21.02	34.66	9.09	13.07	.57	.00	.00	.00	.00	100.00	16.13

TOTAL OCCURS = 176

C-10

SITE 9

BASED ON DATA AVAILABLE AS OF 24/SEP/80
FOR THE PERIOD NOV ,1979 TO NOV ,1979

DIRECTION	WIND SPEED (MILES/HOUR)										TOTAL	MEAN WS
	00-10	>10-15	>15-20	>20-25	>25-35	>35-45	>45-55	>55-65	>65-75	>75		
W	.69	.28	.14	.28	.42	.00	.00	.00	.00	.00	1.81	14.70
WNE	.00	.14	.14	.28	.14	.00	.00	.00	.00	.00	.69	19.74
NE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ENE	.14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	9.69
E	.14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	6.58
ESF	.00	.28	.97	.42	.00	.00	.00	.00	.00	.00	1.67	17.21
SE	1.81	.97	1.81	2.78	.97	.00	.00	.00	.00	.00	8.33	16.84
SSE	4.86	6.25	6.67	8.47	5.14	.00	.00	.00	.00	.00	31.39	17.61
S	.14	.42	1.11	1.94	.42	.00	.00	.00	.00	.00	4.03	20.10
SSW	.56	.28	.42	.14	.00	.00	.00	.00	.00	.00	1.39	12.44
SW	1.25	.42	.00	.14	.00	.00	.00	.00	.00	.00	1.81	9.42
WSW	1.53	.28	.14	.00	.14	.00	.00	.00	.00	.00	2.08	9.14
W	.97	.28	.00	.00	.28	.00	.00	.00	.00	.00	1.53	12.36
WNW	.83	.69	.42	.28	.56	.00	.00	.00	.00	.00	2.78	16.57
NW	5.97	1.92	1.08	9.17	6.94	.00	.00	.00	.00	.00	37.08	17.95
NNW	1.11	1.11	.42	1.11	1.39	.00	.00	.00	.00	.00	5.14	17.82
VARI	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTL	20.00	19.31	19.31	25.00	16.39	.00	.00	.00	.00	.00	100.00	17.21

TOTAL OCCURS = 720

C-11

[PROGRAM: WSSOR] [VERSION: 8003] [20 MAR 79]

ALPHAVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 1

BASED ON DATA AVAILABLE AS OF 10/JAN/80

SITE ALTITUDE: 4950FT SITE EXPONENT: .1400

FOR THE PERIOD MAY, 1979 TO MAY, 1979

AVERAGE TEMPERATURE C. : 13.3

TOTAL HOURS OBSERVED -- 139

WINDSPEED MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	11	7.914	139	100.000	0	0
1	0	4	6.475	124	92.046	1	1
2	1	10	10.072	119	85.612	7	8
3	2	23	16.547	105	75.540	41	49
4	4	19	13.669	82	58.993	80	124
5	8	18	12.950	63	45.324	147	276
6	14	9	6.475	45	32.374	127	403
7	22	8	5.755	36	25.899	180	582
8	34	5	3.597	28	20.144	168	750
9	48	4	6.475	23	16.547	430	1180
10	65	3	2.154	14	10.072	196	1376
11	87	3	2.154	11	7.914	261	1638
12	113	2	1.439	8	5.755	226	1864
13	144	5	3.597	6	4.317	719	2583
14	180	0	.000	1	.719	0	2583
15	221	0	.000	1	.719	0	2583
16	268	1	.719	1	.719	268	2851
17	322	0	.000	0	.000	0	2851

[PROGRAM: WSSOH] [VENSTOCK ADDRESS] [20 MAR 74]

AEROMONITORING INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 1

BASED ON DATA AVAILABLE AS OF 10/JAN/80

SITE ALTITUDE: 4950FT SITE EXPONENT: .1400

FOR THE PERIOD JUN ,1979 TO JUN ,1979

AVERAGE TEMPERATURE C. : 17.8

TOTAL HOURS OBSERVED -- 540

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PER HOUR	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	34	7.037	540	100.000	0	0
1	0	40	7.407	502	92.963	3	3
2	1	29	5.185	462	85.556	14	17
3	2	65	12.037	434	80.370	113	130
4	4	54	10.000	369	68.333	222	352
5	8	75	14.074	315	58.333	610	962
6	14	75	13.669	239	44.259	1041	2003
7	22	46	8.519	164	30.370	1014	3017
8	33	41	7.593	118	21.852	1309	4366
9	47	26	4.815	77	14.259	1218	5583
10	64	14	3.519	51	9.444	1221	6804
11	86	8	1.481	32	5.926	664	7488
12	111	6	1.111	24	4.444	666	8155
13	141	4	.741	18	3.333	565	8719
14	176	6	1.111	14	2.593	1058	9777
15	217	6	1.111	8	1.481	1301	11078
16	263	1	.185	2	.370	263	11341
17	316	1	.185	1	.185	316	11657
18	375	0	.000	0	.000	0	11657

[PROGRAM: WSSUM] [VERSION: A0005] [20 MAR 79]

AERODYNAMIC INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 1

BASED ON DATA AVAILABLE AS OF 10/JAN/80

SITE ALTITUDE: 4950FT SITE EXPONENT: .1400

FOR THE PERIOD: JUL ,1979 TO JUL ,1979

AVERAGE TEMPERATURE C. : 23.3

TOTAL HOURS OBSERVED -- 744

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	83	11.156	744	100.000	0	0
1	0	53	7.124	661	88.844	3	3
2	1	46	6.183	608	81.720	23	26
3	2	85	11.425	562	75.538	144	170
4	4	89	11.962	477	64.113	357	528
5	8	63	8.464	388	52.151	494	1022
6	14	92	12.366	325	43.683	1247	2269
7	22	67	9.005	233	31.317	1447	3712
8	32	63	8.468	166	22.312	2024	5736
9	46	34	5.108	103	13.844	1739	7474
10	63	20	2.688	65	6.737	1255	8730
11	84	11	1.478	45	6.048	919	9648
12	108	13	1.747	34	4.570	1410	11058
13	138	3	.403	21	2.823	414	11472
14	172	1	.134	16	2.419	172	11644
15	212	5	.672	17	2.285	1059	12703
16	257	2	.269	12	1.613	514	13217
17	308	1	.134	10	1.344	308	13526
18	366	1	.134	9	1.210	366	13892
19	430	4	.538	8	1.075	1722	15613
20	502	3	.403	4	.538	1506	17120
21	581	1	.134	1	.134	581	17701
22	668	0	.000	0	.000	0	17701

(PROGRAM: W5508) (VERSION: ADP1) (20 MAR 79)

AFROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 1

BASED ON DATA AVAILABLE AS OF 10/JAN/80

SITE ALTITUDE: 4950FT SITE EXPONENT: .1400

FOR THE PERIOD AUG ,1979 TO AUG ,1979

AVERAGE TEMPERATURE C. : 22.8

TOTAL HOURS OBSERVED -- 744

WIND SPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	61	8.199	744	100.000	0	0
1	0	59	7.930	683	91.801	4	4
2	1	69	9.274	624	83.871	35	38
3	2	102	13.710	555	74.597	173	212
4	4	82	11.022	453	60.887	330	542
5	8	94	12.634	371	49.866	739	1281
6	14	80	10.753	277	37.231	1087	2368
7	22	57	7.661	197	26.478	1230	3597
8	32	62	8.333	140	18.817	1997	5594
9	46	37	4.973	78	10.464	1696	7290
10	63	20	2.688	41	5.511	1758	8548
11	84	9	1.210	21	2.823	753	9301
12	109	7	.941	12	1.613	761	10062
13	138	1	.134	5	.672	138	10200
14	173	1	.134	4	.538	173	10373
15	212	0	.000	3	.403	0	10373
16	258	0	.000	3	.403	0	10373
17	309	0	.000	3	.403	0	10373
18	367	0	.000	3	.403	0	10373
19	431	0	.000	3	.403	0	10373
20	503	0	.000	3	.403	0	10373
21	582	0	.000	3	.403	0	10373
22	670	2	.269	3	.403	1339	11712
23	765	0	.000	1	.134	0	11712
24	869	0	.000	1	.134	0	11712
25	983	1	.134	1	.134	983	12695
26	1105	0	.000	0	.000	0	12695

(PROGRAM: WSSPH) (VERSION: AQPHS) (20 MAR 79)

AERODYNAMICS INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 1

BASED ON DATA AVAILABLE AS OF 10/JAN/80

SITE ALTITUDE: 4950FT SITE EXPONENT: .1400

FOR THE PERIOD SEP ,1979 TO SEP ,1979

AVERAGE TEMPERATURE C. : 20.0

TOTAL HOURS OBSERVED -- 656

WINDSPD MPH (10M HT)	POWFR (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	67	10.213	656	100.000	0	0
1	0	66	10.061	589	89.787	4	4
2	1	66	10.061	523	79.726	34	34
3	2	86	13.415	457	69.665	151	189
4	4	95	14.482	369	56.250	387	576
5	8	84	12.805	274	41.764	668	1244
6	14	81	12.348	190	28.963	1114	2358
7	22	56	8.537	109	16.616	1223	3581
8	33	21	3.201	53	8.079	684	4265
9	46	17	2.591	32	4.878	789	5054
10	64	5	.762	15	2.287	318	5372
11	85	6	.915	10	1.524	508	5881
12	110	2	.305	4	.610	220	6101
13	140	1	.152	2	.305	140	6241
14	175	1	.152	1	.152	175	6415
15	215	0	.000	0	.000	0	6415

(PROGRAM: WSSOK) (VERSION: ADAMS) (20 MAR 79)

AEROENVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 1

BASED ON DATA AVAILABLE AS OF 10/JAN/80

SITE ALTITUDE: 4950 FT SITE EXPONENT: .1400

FOR THE PERIOD OCT ,1979 TO OCT ,1979

AVERAGE TEMPERATURE C. : 14.4

TOTAL HOURS OBSERVED -- 512

WIND SPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	21	4.102	512	100.000	0	0
1	0	33	6.445	491	95.896	2	2
2	1	30	5.859	458	89.453	16	16
3	2	52	10.156	428	83.594	92	109
4	4	69	13.477	376	73.437	288	397
5	8	61	11.914	307	59.961	497	894
6	14	71	13.867	246	48.007	1000	1894
7	22	55	10.742	175	34.180	1230	3123
8	33	44	8.594	120	23.437	1468	4591
9	46	22	4.297	76	14.844	1005	5637
10	65	14	2.734	54	10.547	912	6549
11	87	6	1.172	40	7.812	520	7070
12	113	7	1.367	34	6.641	788	7858
13	143	5	.977	27	5.273	716	8574
14	179	4	1.758	22	4.297	1610	10184
15	220	4	1.758	13	2.534	1980	12163
16	267	0	.000	4	.781	0	12163
17	320	1	.195	4	.781	320	12483
18	360	1	.000	3	.586	0	12483
19	447	2	.391	3	.586	894	13377
20	521	1	.195	1	.195	521	13899
21	604	0	.000	0	.000	0	13899

(PROGRAM: WSS08) (VERSION: ADDMS) (20 MAR 79)

AERONAVIGATION INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 1

BASED ON DATA AVAILABLE AS OF 10/JAN/80

SITE ALTITUDE: 4950FT SITE EXPONENT: .1400

FOR THE PERIOD NOV ,1979 TO NOV ,1979

AVERAGE TEMPERATURE C. : 8.9

TOTAL HOURS OBSERVED -- 422

WIND SPD MPH (10M HT)	POWER (W/M ²)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M ²) (50M HT)	TOTAL ENERGY DENSITY (WH/M ²) (50M HT)
0	0	11	2.607	422	100.000	0	0
1	0	37	8.768	411	97.393	2	2
2	1	25	5.924	374	88.626	13	16
3	2	12	2.844	349	82.701	22	37
4	4	15	3.555	337	79.858	64	101
5	8	16	3.791	322	76.303	133	235
6	14	13	3.081	306	72.512	187	422
7	23	12	2.844	243	69.431	274	696
8	34	16	3.791	281	66.588	586	1243
9	49	21	4.976	265	62.796	1021	2263
10	67	24	5.687	244	57.820	1600	3863
11	89	27	6.398	220	52.133	2396	6259
12	115	35	8.294	193	45.735	4032	10291
13	146	31	7.346	158	37.441	4541	14832
14	183	25	5.924	127	30.095	4573	19405
15	225	22	5.213	102	24.171	4950	24355
16	273	27	6.398	80	18.957	7373	31729
17	328	20	4.739	53	12.559	6551	38279
18	389	14	3.318	33	7.820	5443	43723
19	457	7	1.659	19	4.502	3201	46924
20	533	6	1.422	12	2.844	3200	50124
21	617	2	.474	6	1.422	1235	51359
22	710	0	.000	4	.948	0	51359
23	811	1	.237	4	.948	811	52170
24	922	1	.237	3	.711	922	53091
25	1042	1	.237	2	.474	1042	54133
26	1172	0	.000	1	.237	0	54133
27	1312	1	.237	1	.237	1312	55445
28	1464	0	.000	0	.000	0	55445

PROGRAM: WSPRO (VERSION: ADJUST 120 MAR 79)

AFROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 2

BASED ON DATA AVAILABLE AS OF 10/JAN/80

SITE ALTITUDE: 5957FT SITE EXPONENT: .1400

FOR THE PERIOD JUL ,1979 TO JUL ,1979

AVERAGE TEMPERATURE C. : 23.3

TOTAL HOURS OBSERVED -- 314

WINDSPD MPH (100 FT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (W/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	0	.000	314	100.000	0	0
1	0	2	.629	316	100.000	0	0
2	0	4	1.254	316	99.371	2	2
3	2	7	2.201	312	98.113	11	13
4	4	8	2.516	305	95.912	31	40
5	8	9	2.830	297	93.396	68	112
6	13	16	5.031	286	90.566	209	321
7	21	9	2.830	272	85.535	187	508
8	31	14	4.403	263	82.704	433	941
9	44	8	2.516	249	78.302	352	1293
10	60	13	4.088	241	75.786	786	2079
11	80	18	5.660	228	71.698	1448	3527
12	104	10	3.145	210	66.038	1044	4571
13	133	6	1.887	200	62.893	797	5368
14	166	4	1.254	194	61.006	663	6031
15	204	8	1.887	190	59.748	1224	7255
16	248	5	1.572	184	57.862	1238	8493
17	297	8	2.516	179	56.289	2375	10868
18	352	8	2.516	171	53.774	2820	13688
19	415	11	3.459	163	51.258	4560	18248
20	483	16	5.031	152	47.799	7736	25983
21	560	15	4.717	136	42.767	8395	34378
22	644	14	4.403	121	38.050	9009	43388
23	735	12	3.774	107	33.648	8824	52211
24	835	9	2.830	95	29.874	7519	59730
25	944	12	3.774	86	27.004	11332	71062
26	1062	10	3.145	74	23.270	10622	81684
27	1190	10	3.145	64	20.126	11895	93579
28	1327	11	3.459	54	16.981	14543	108172
29	1474	8	2.516	43	13.522	11792	119964
30	1632	5	2.516	35	11.006	13054	133018
31	1800	7	2.201	27	8.491	12603	145621
32	1980	6	1.887	20	6.289	11862	157503
33	2172	5	1.572	14	4.403	10859	168362
34	2375	2	.629	9	2.830	4751	173113
35	2591	4	1.256	7	2.201	10365	183477
36	2820	1	.314	3	.943	2820	186297
37	3061	1	.314	2	.629	3061	189358
38	3316	0	.000	1	.314	0	189358
39	3585	1	.314	1	.314	3585	192943
40	3866	0	.000	0	.000	0	192943

(PROGRAM: WSSOF) (VERSION: AGRES) (20 MAR 79)

AERODYNAMIC INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 2

BASED ON DATA AVAILABLE AS OF 10/JAN/80

SITE ALTITUDE: 5957FT SITE EXPONENT: .1400

FOR THE PERIOD AUG ,1979 TO AUG ,1979

AVERAGE TEMPERATURE C. : 22.8

TOTAL HOURS OBSERVED -- 456

WINDSPD MPH (10M HT)	POWER (K/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (K/M**2) (50M HT)	TOTAL ENERGY DENSITY (K/M**2) (50M HT)
0	0	0	.000	456	100.000	0	0
1	0	4	.877	456	100.000	0	0
2	0	10	2.193	452	99.123	5	5
3	2	13	2.851	442	96.930	21	26
4	4	20	4.386	424	94.079	78	104
5	8	16	3.509	409	89.693	121	225
6	13	19	4.167	393	86.184	249	474
7	21	9	1.974	374	82.018	187	661
8	31	18	3.947	365	80.044	558	1219
9	44	14	3.070	347	76.096	618	1837
10	61	17	3.728	333	73.028	1030	2867
11	81	23	5.044	316	69.298	1854	4721
12	105	21	4.605	293	64.250	2198	6919
13	133	26	5.702	272	59.649	3460	10379
14	166	15	3.289	246	53.947	2493	12872
15	204	9	1.974	231	50.658	1840	14712
16	248	16	3.509	222	48.680	3970	18681
17	298	21	4.605	206	45.175	6249	24931
18	353	17	3.728	185	40.570	6005	30936
19	415	13	2.851	168	36.842	5401	36337
20	485	15	3.289	155	33.991	7268	43605
21	561	12	2.632	140	30.702	6731	50336
22	645	15	3.289	128	28.070	9674	60011
23	737	17	3.728	113	24.781	12528	72539
24	837	13	2.851	96	21.053	10885	83424
25	946	12	2.632	83	18.202	11357	94781
26	1065	15	3.289	71	15.570	15969	110750
27	1192	12	2.632	56	12.281	14306	125057
28	1330	11	2.412	44	9.649	14626	139683
29	1477	15	3.289	33	7.237	22154	161841
30	1635	8	1.754	18	3.947	13083	174925
31	1804	7	1.535	10	2.193	12631	187556
32	1985	1	.219	3	.658	1985	189541
33	2177	1	.219	2	.439	2177	191717
34	2381	1	.219	1	.219	2381	194098
35	2597	0	.000	0	.000	0	194098

(PROGRAM: W5500) (VERSION: AG005) (20 MAR 79)

AFWENVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 2

BASED ON DATA AVAILABLE AS OF 10/JAN/80

SITE ALTITUDE: 5957ft SITE EXPONENT: .1400

FOR THE PERIOD SEP ,1979 TO SEP ,1979

AVERAGE TEMPERATURE C. : 20.0

TOTAL HOURS OBSERVED -- 582

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (W/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	17	2.921	562	100.000	0	0
1	0	16	2.744	565	97.079	1	1
2	0	24	4.124	549	94.330	12	13
3	2	27	4.639	525	90.206	45	57
4	4	16	2.744	498	85.567	63	120
5	8	44	7.560	482	82.818	337	458
6	13	37	6.357	438	75.258	490	948
7	21	34	5.842	401	68.400	715	1663
8	31	29	4.983	367	63.058	911	2574
9	45	35	6.014	338	58.076	1585	4138
10	61	30	5.155	308	52.062	1840	5978
11	82	38	6.529	273	46.967	3102	9080
12	106	27	4.639	235	40.378	2861	11942
13	135	23	3.952	206	35.739	3099	15041
14	168	27	4.634	185	31.787	4544	19585
15	207	28	4.811	158	27.148	5796	25381
16	251	16	2.744	130	22.337	4019	29400
17	301	15	2.577	114	19.588	4520	33920
18	358	17	2.921	99	17.010	6081	40000
19	421	12	2.062	82	14.089	5048	45048
20	491	8	1.375	70	12.027	3925	48974
21	568	12	2.062	62	10.653	6816	55789
22	653	11	1.890	50	8.591	7180	62973
23	746	8	1.375	39	6.701	5970	68943
24	848	9	1.546	31	5.326	7831	76573
25	958	8	1.375	22	3.780	7666	84240
26	1078	3	.515	14	2.405	3234	87473
27	1207	2	.344	11	1.890	2414	89888
28	1346	4	.687	9	1.546	5385	95273
29	1496	3	.515	5	.859	4487	99760
30	1656	1	.172	2	.344	1656	101416
31	1827	1	.172	1	.172	1827	103243
32	2010	0	.000	0	.000	0	103243

PROGRAM: W55081 (VERSION: A0051) (20 MAR 79)

AFROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 2

BASED ON DATA AVAILABLE AS OF 10/JAN/80

SITE ALTITUDE: 5957FT SITE EXPONENT: .1400

FOR THE PERIOD OCT ,1979 TO OCT ,1979

AVERAGE TEMPERATURE C. : 14.4

TOTAL HOURS OBSERVED -- 201

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	5	2.488	201	100.000	0	0
1	0	5	2.488	196	97.512	0	0
2	1	13	6.464	191	95.025	7	7
3	2	3	1.493	178	88.557	5	12
4	4	2	.995	175	87.065	8	20
5	8	3	1.493	173	86.070	24	44
6	14	3	1.493	170	84.577	41	84
7	22	7	3.483	167	83.085	151	235
8	32	3	1.493	160	79.602	97	332
9	46	6	3.980	157	78.109	367	698
10	63	6	2.985	149	74.129	377	1075
11	84	6	3.980	143	71.144	669	1745
12	109	10	4.975	135	67.164	1086	2831
13	138	6	2.985	125	62.189	829	3659
14	172	5	2.488	119	59.204	862	4522
15	212	10	4.975	114	56.716	2121	6643
16	257	12	5.970	104	51.741	3089	9732
17	309	6	2.985	92	45.771	1853	11585
18	367	6	3.980	86	42.786	2932	14517
19	431	4	1.990	78	38.806	1724	16242
20	503	10	4.975	74	36.816	5026	21270
21	582	10	4.975	64	31.841	5821	27090
22	669	10	4.975	54	26.866	6692	33783
23	765	4	1.990	44	21.891	3054	36842
24	869	6	2.985	40	19.900	5213	42055
25	982	5	2.488	34	16.915	4910	46965
26	1105	3	1.493	29	14.428	3314	50279
27	1237	4	1.990	26	12.935	4948	55228
28	1380	2	.995	22	10.905	2759	57987
29	1533	0	.000	20	9.950	0	57987
30	1697	2	.995	20	9.950	3394	61381
31	1872	2	.995	18	8.955	3745	65126
32	2060	1	.498	16	7.960	2060	67185
33	2259	2	.995	15	7.463	4517	71703
34	2470	1	.498	13	6.468	2470	74173
35	2695	1	.498	12	5.970	2695	76868
36	2932	3	1.493	11	5.473	8797	85665
37	3184	1	.498	8	3.980	3184	88849
38	3449	3	1.493	7	3.483	10346	99195
39	3728	0	.000	4	1.990	0	99195
40	4023	0	.000	4	1.990	0	99195
41	4332	1	.498	4	1.990	4332	103527
42	4657	2	.995	3	1.493	9313	112840
43	4997	1	.498	1	.498	4997	117837

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(PROGRAM: WSS08) (VERSION: A00MS) (20 MAR 79)

AFNOVIRDMNT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 2

BASED ON DATA AVAILABLE AS OF 10/JAN/80

SITE ALTITUDE: 5957FT SITE EXPONENT: .1400

FOR THE PERIOD NOV ,1979 TO NOV ,1979

AVERAGE TEMPERATURE C. : 8.9

TOTAL HOURS OBSERVED -- 686

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	3	.437	686	100.000	0	0
1	0	12	1.749	683	99.563	1	1
2	1	21	3.061	671	97.813	11	12
3	2	22	3.207	650	94.752	38	50
4	4	16	2.332	628	91.545	66	116
5	8	14	2.041	612	89.213	113	228
6	14	19	2.770	598	87.172	264	492
7	22	20	2.915	579	84.402	441	934
8	33	25	3.644	554	81.447	824	1757
9	47	33	4.810	530	77.843	1548	3305
10	64	14	2.624	501	73.032	1158	4464
11	86	16	2.332	483	70.406	1370	5834
12	111	26	3.790	467	68.076	2491	8725
13	141	24	3.499	441	64.266	3393	12118
14	177	21	3.061	417	60.787	3708	15825
15	217	31	4.519	396	57.726	6732	22557
16	264	21	3.061	365	53.207	5535	28092
17	316	25	3.644	344	50.146	7903	35995
18	375	22	3.207	319	46.501	8256	44251
19	441	32	4.665	297	43.294	14123	58374
20	515	40	5.831	265	38.630	20590	78965
21	596	26	3.790	225	32.799	15493	94458
22	685	25	3.644	199	29.009	17129	111587
23	783	18	2.624	174	25.364	14092	125679
24	890	15	2.187	156	22.741	13343	139021
25	1005	17	2.478	141	20.554	17092	156113
26	1131	23	3.353	124	18.076	26011	182124
27	1267	22	3.207	101	14.723	27863	209988
28	1413	12	1.749	79	11.516	16950	226938
29	1569	15	2.187	67	9.767	23540	250477
30	1737	12	1.749	52	7.580	20848	271325
31	1917	3	.437	40	5.831	5751	277076
32	2108	6	.875	37	5.394	12651	289727
33	2312	5	.729	31	4.519	11562	301289
34	2529	10	1.456	26	3.790	25290	326579
35	2759	4	.583	16	2.332	11035	337614
36	3002	2	.292	12	1.749	6004	343618
37	3259	1	.146	10	1.456	3259	346878
38	3531	1	.146	9	1.312	3531	350408
39	3817	3	.437	8	1.166	11451	361859
40	4118	2	.292	5	.729	8236	370095
41	4435	2	.292	3	.437	8869	378965
42	4767	0	.000	1	.146	0	378965
43	5116	1	.146	1	.146	5116	384081

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(PROGRAM: WSSOP) (VERSION: ADD5) (20 MAR 79)

AEROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 3

BASED ON DATA AVAILABLE AS OF 10/JAN/80

SITE ALTITUDE: 5850FT SITE EXPONENT: .1400

FOR THE PERIOD MAY ,1979 TO MAY ,1979

AVERAGE TEMPERATURE C. : 13.3

TOTAL HOURS OBSERVED -- 27

WIND SPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	3	11.111	27	100.000	0	0
1	0	2	7.407	24	88.889	0	0
2	1	0	.000	22	81.481	0	0
3	2	6	22.222	22	81.481	10	10
4	4	1	3.704	16	59.259	4	14
5	8	3	11.111	15	55.556	24	38
6	14	3	11.111	12	44.444	41	79
7	22	1	3.704	9	33.333	22	101
8	32	2	7.407	8	29.630	65	166
9	46	1	3.704	6	22.222	46	212
10	63	2	7.407	5	18.519	127	339
11	84	1	3.704	3	11.111	84	423
12	110	0	.000	2	7.407	0	423
13	139	1	3.704	2	7.407	139	563
14	174	0	.000	1	3.704	0	563
15	214	0	.000	1	3.704	0	563
16	260	0	.000	1	3.704	0	563
17	311	0	.000	1	3.704	0	563
18	370	0	.000	1	3.704	0	563
19	435	1	3.704	1	3.704	435	997
20	507	0	.000	0	.000	0	997

(PROGRAM: KSS01) (VERSION: ADDS) (20 MAR 74)

AEROENVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 3

BASED ON DATA AVAILABLE AS OF 10/JAN/80

SITE ALTITUDE: 5850FT SITE EXPONENT: .1400

FOR THE PERIOD JUL ,1979 TO JUL ,1979

AVERAGE TEMPERATURE C. : 23.3

TOTAL HOURS OBSERVED -- 158

WIND SPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (W/M**2) (50M HT)	TOTAL ENERGY DENSITY (W/M**2) (50M HT)
0	0	6	3.797	158	100.000	0	0
1	0	10	6.329	152	96.203	1	1
2	0	5	3.165	142	89.873	2	3
3	2	19	12.025	137	86.709	31	34
4	4	14	8.861	118	74.684	50	89
5	8	12	7.595	104	65.823	91	180
6	13	15	9.494	92	58.228	197	376
7	21	8	5.063	77	48.734	167	543
8	31	13	8.228	69	43.671	404	947
9	44	10	6.329	56	35.443	442	1389
10	61	13	8.228	46	29.114	789	2178
11	81	10	6.329	33	20.866	808	2985
12	105	6	3.797	23	14.557	629	3615
13	133	5	3.165	17	10.759	667	4281
14	167	4	2.532	12	7.595	666	4947
15	205	1	.633	8	5.063	205	5152
16	249	3	1.899	7	4.430	746	5898
17	296	2	1.266	4	2.532	596	6494
18	354	2	1.266	2	1.266	708	7202
19	416	0	.000	0	.000	0	7202

(PROGRAM: W55081 (VERSION: ADP5) (20 MAR 79)

AGROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 3

BASED ON DATA AVAILABLE AS OF 10/JAN/80

SITE ALTITUDE: 5850FT SITE EXPONENT: .1400

FOR THE PERIOD AUG ,1979 TO AUG ,1979

AVERAGE TEMPERATURE C. : 22.8

TOTAL HOURS OBSERVED -- 744

WIND SPD MPH (10' HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50' HT)	TOTAL ENERGY DENSITY (WH/M**2) (50' HT)
0	0	3	.403	744	100.000	0	0
1	0	17	2.285	741	99.547	1	1
2	0	35	4.704	724	97.312	17	18
3	2	51	6.855	689	92.608	84	102
4	4	62	8.333	638	85.753	241	343
5	8	86	11.554	576	77.419	654	997
6	13	109	14.651	490	65.860	1432	2429
7	21	88	11.828	381	51.210	1836	4264
8	31	72	9.677	293	39.382	2742	6506
9	44	62	8.333	221	29.704	2749	9255
10	61	48	6.452	159	21.371	2419	12174
11	81	41	5.511	111	14.919	3319	15493
12	105	25	3.360	70	9.404	2627	18120
13	134	17	2.285	45	6.048	2271	20342
14	167	11	1.478	28	3.763	1836	22227
15	205	8	1.075	17	2.285	1642	23870
16	249	3	.403	9	1.210	747	24617
17	299	3	.403	6	.806	896	25513
18	355	3	.403	3	.403	1064	26577
19	417	0	.000	0	.000	0	26577

(PROGRAM: WSS001) (VERSION: ADD05) 120 MAR 79)

AEROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 3

BASED ON DATA AVAILABLE AS OF 10/JAN/80

SITE ALTITUDE: 5050FT SITE EXPONENT: .1400

FOR THE PERIOD SEP ,1979 TO SEP ,1979

AVERAGE TEMPERATURE C. : 20.0

TOTAL HOURS OBSERVED -- 715

WINDSPD MPH (10M HT)	POWER (K/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	20	2.797	715	100.000	0	0
1	0	36	5.315	695	97.203	2	2
2	0	39	5.455	657	91.888	19	22
3	2	57	7.972	618	86.434	95	116
4	4	56	7.832	561	78.462	221	337
5	8	60	8.392	505	70.629	462	799
6	13	56	7.832	445	62.238	745	1544
7	21	63	8.811	389	54.406	1331	2874
8	32	49	6.853	326	45.594	1545	4419
9	45	43	6.014	277	38.741	1930	6349
10	62	44	6.154	234	32.727	2709	9059
11	82	20	2.797	190	26.573	1639	10698
12	106	31	4.336	170	23.776	3299	13996
13	135	20	2.797	139	19.441	2706	16702
14	169	32	4.476	119	16.643	5407	22109
15	206	21	2.937	87	12.166	4364	26473
16	252	17	2.378	66	9.231	4288	30761
17	303	7	.979	49	6.853	2118	32879
18	354	10	1.399	42	5.674	3591	36470
19	422	4	.559	32	4.476	1689	38159
20	493	3	.420	28	3.916	1478	39637
21	570	8	1.119	25	3.497	4562	44199
22	656	4	.559	17	2.378	2623	46822
23	749	1	.140	13	1.818	749	47571
24	851	1	.140	12	1.678	851	48422
25	962	2	.280	11	1.538	1924	50346
26	1082	0	.000	9	1.259	0	50346
27	1212	1	.140	9	1.259	1212	51559
28	1352	0	.000	8	1.119	0	51559
29	1502	0	.000	8	1.119	0	51559
30	1663	2	.280	6	1.119	3325	54884
31	1834	1	.140	6	.839	1834	56718
32	2018	1	.140	5	.699	2018	58736
33	2213	0	.000	4	.559	0	58736
34	2420	1	.140	4	.559	2420	61156
35	2640	2	.280	3	.420	5280	66436
36	2873	0	.000	1	.140	0	66436
37	3119	1	.140	1	.140	3119	69555
38	3379	0	.000	0	.000	0	69555

(PROGRAM: W5508) (VERSION: ADDMS) (20 MAR 79)

AEROENVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 3

BASED ON DATA AVAILABLE AS OF 10/JAN/80

SITE ALTITUDE: 5850FT SITE EXPONENT: .1400

FOR THE PERIOD OCT ,1979 TO OCT ,1979

AVERAGE TEMPERATURE C. : 14.4

TOTAL HOURS OBSERVED -- 707

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	1	.141	707	100.000	0	0
1	0	3	.424	706	99.859	0	0
2	1	36	5.092	703	99.434	18	18
3	2	44	6.223	667	94.342	75	93
4	4	39	5.516	623	88.119	157	251
5	8	50	7.072	584	82.603	394	645
6	14	62	8.769	534	75.530	845	1490
7	22	71	10.042	472	66.761	1537	3027
8	32	89	12.588	401	56.714	2875	5902
9	46	64	9.052	312	44.130	2944	8846
10	63	51	7.214	248	35.076	3218	12064
11	84	45	6.365	197	27.664	3779	15843
12	109	46	6.506	152	21.499	5015	20859
13	139	24	4.102	106	14.993	4020	24879
14	173	37	5.233	77	10.891	6406	31285
15	213	11	1.556	40	5.658	2342	33627
16	258	11	1.556	29	4.102	2843	36470
17	310	6	.849	18	2.546	1860	38330
18	368	4	.566	12	1.697	1472	39802
19	433	2	.283	8	1.132	866	40668
20	505	2	.283	6	.849	1010	41677
21	584	0	.000	4	.566	0	41677
22	672	2	.283	4	.566	1344	43021
23	768	1	.141	2	.283	768	43789
24	872	0	.000	1	.141	0	43789
25	986	1	.141	1	.141	986	44775
26	1109	0	.000	0	.000	0	44775

(PROGRAM: W8500) (VERSION: ADD08) (20 MAR 79)

AFMENVIRONMENT INC.

WIND ENRGY ASSESSMENT STUDY PROJ 505 SITE 3

BASED ON DATA AVAILABLE AS OF 10/JAN/80

SITE ALTITUDE: 5850FT SITE EXPONENT: .1400

FOR THE PERIOD NOV ,1979 TO NOV ,1979

AVERAGE TEMPERATURE C. 1 8.9

TOTAL HOURS OBSERVED -- 662

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	4	.604	662	100.000	0	0
1	0	27	4.230	658	99.396	2	2
2	1	53	8.006	630	95.166	27	29
3	2	56	8.459	577	87.160	98	127
4	4	51	7.704	521	78.701	211	338
5	8	59	8.912	470	70.997	476	814
6	14	48	7.251	411	62.085	670	1484
7	22	36	5.438	363	54.834	798	2281
8	33	37	5.589	327	49.396	1224	3505
9	47	33	4.985	290	43.807	1554	5059
10	65	32	4.834	257	38.822	2067	7126
11	86	33	4.985	225	33.988	2837	9963
12	112	36	5.438	192	29.003	4018	13981
13	142	24	3.625	156	23.565	3406	17367
14	177	21	3.172	132	19.940	3722	21109
15	218	14	2.115	111	16.767	3052	24160
16	265	13	1.964	97	14.653	3439	27600
17	317	23	3.474	84	12.689	7299	34898
18	377	10	1.511	61	9.215	3767	38665
19	443	8	1.208	51	7.704	3544	42210
20	517	12	1.813	43	6.495	6201	48410
21	598	2	.302	31	4.683	1196	49607
22	686	6	.906	29	4.381	4127	53733
23	786	2	.302	23	3.474	1572	55305
24	893	7	1.057	21	3.172	6250	61555
25	1009	1	.151	14	2.115	1009	62565
26	1135	2	.302	13	1.964	2271	64835
27	1271	3	.453	11	1.662	3814	68649
28	1418	0	.000	0	1.208	0	68649
29	1575	2	.302	8	1.208	3151	71800
30	1744	2	.302	6	.906	3488	75288
31	1924	0	.000	4	.604	0	75288
32	2117	3	.453	4	.604	6350	81637
33	2321	0	.000	1	.151	0	81637
34	2539	0	.000	1	.151	0	81637
35	2769	1	.151	1	.151	2769	84407
36	3014	0	.000	0	.000	0	84407

PROGRAM: W550E1 (VERSION: ADDMS) (20 MAR 79)

AEROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 4

BASED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 4600FT SITE ELEVATION: .1400

FOR THE PERIOD MAY, 1979 TO MAY, 1979

AVERAGE TEMPERATURE C. : 13.3

TOTAL HOURS OBSERVED -- 714

WIND SPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	14	1.961	714	100.000	0	0
1	0	31	4.342	700	98.039	2	2
2	1	51	7.143	669	93.697	27	29
3	2	80	11.204	618	86.555	143	172
4	4	88	12.325	538	75.350	373	546
5	8	104	14.566	450	63.025	862	1408
6	14	93	13.025	346	48.459	1332	2740
7	23	50	7.003	253	35.434	1137	3877
8	34	39	5.462	203	28.431	1324	5201
9	48	26	3.641	164	22.969	1257	6457
10	66	23	3.221	138	19.328	1525	7982
11	88	12	1.681	115	16.106	1059	9041
12	115	33	4.622	103	14.426	3781	12822
13	146	20	2.801	70	9.804	2913	15736
14	182	22	3.081	50	7.003	4003	19738
15	224	9	1.261	28	3.922	2014	21752
16	272	10	1.401	19	2.661	2716	24468
17	326	2	.280	9	1.261	452	25120
18	387	2	.280	7	.980	773	25893
19	455	2	.280	5	.700	910	26803
20	530	1	.140	3	.420	530	27333
21	614	2	.280	2	.280	1228	28561
22	766	0	.000	0	.000	0	28561

PROGRAM: WSSOH (VERSION: A00MS) (20 MAR 79)

AEROMONUMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 4

BASED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 4600FT SITE EXPONENT: .1400

FOR THE PERIOD JUN ,1979 TO JUN ,1979

AVERAGE TEMPERATURE C. : 17.8

TOTAL HOURS OBSERVED -- 720

WINDSPD MPH (104 FT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M FT)	TOTAL ENERGY DENSITY (WH/M**2) (50M FT)
0	0	19	2.639	720	100.000	0	0
1	0	29	4.028	701	97.361	2	2
2	1	36	5.000	672	93.333	19	21
3	2	45	6.250	636	88.333	79	100
4	4	75	10.417	591	82.083	312	412
5	8	80	11.111	516	71.667	651	1063
6	14	84	11.667	436	60.556	1181	2244
7	22	41	12.639	352	48.689	2031	4275
8	33	64	11.667	261	36.250	2799	7074
9	47	63	8.750	177	24.583	2989	10063
10	65	33	4.583	114	15.833	2148	12211
11	87	25	3.472	81	11.250	2166	14377
12	112	23	3.194	56	7.778	2587	16963
13	143	12	1.667	33	4.583	1716	18679
14	179	11	1.528	21	2.917	1964	20643
15	220	3	.417	10	1.389	659	21302
16	267	5	.694	7	.972	1333	22635
17	320	2	.278	2	.278	639	23275
18	380	0	.000	0	.000	0	23275

PROGRAM: W550H (VERSION: AUMS) (20 MAR 79)

AEROENVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 4

BASED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 4600FT SITE EXPONENT: .1400

FOR THE PERIOD JUL ,1979 TO JUL ,1979

AVERAGE TEMPERATURE C. : 23.3

TOTAL HOURS OBSERVED -- 684

WIND SPD (MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	19	2.778	684	100.000	0	0
1	0	44	6.433	665	97.222	3	3
2	1	53	7.749	621	90.789	27	30
3	2	66	9.649	568	83.041	113	143
4	4	108	15.789	502	73.392	440	583
5	8	98	14.327	394	57.602	779	1362
6	14	97	14.181	296	43.275	1332	2694
7	22	66	9.649	199	29.094	1440	4133
8	33	45	6.579	133	19.444	1465	5598
9	46	24	3.509	88	12.865	1113	6711
10	64	18	2.632	64	9.357	1145	7856
11	85	16	2.339	46	6.725	1354	9210
12	110	5	.731	30	4.386	549	9759
13	140	4	1.170	25	3.655	1118	10877
14	174	1	.146	17	2.485	174	11051
15	215	2	.292	16	2.339	429	11480
16	260	3	.439	14	2.047	781	12262
17	312	2	.292	11	1.608	625	12887
18	371	1	.146	9	1.316	371	13258
19	436	2	.292	8	1.170	872	14130
20	509	2	.292	6	.877	1017	15147
21	589	3	.439	4	.585	1767	16914
22	677	1	.146	1	.146	677	17591
23	774	0	.000	0	.000	0	17591

(PROGRAM: W5508) (VERSION: ADDMS) (20 MAR 79)

AEROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 4

BASED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 4600FT SITE EXPONENT: .1400

FOR THE PERIOD AUG ,1979 TO AUG ,1979

AVERAGE TEMPERATURE C. : 22.8

TOTAL HOURS OBSERVED -- 631

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	35	5.547	631	100.000	0	0
1	0	42	6.656	596	94.453	3	3
2	1	47	7.448	554	87.797	24	27
3	2	77	12.203	507	80.349	132	159
4	4	111	17.591	430	68.146	453	612
5	8	103	16.323	319	50.555	820	1432
6	14	81	12.837	216	34.231	1115	2547
7	22	55	8.716	135	21.395	1202	3749
8	33	34	5.388	80	12.678	1109	4859
9	46	22	3.487	46	7.290	1022	5881
10	64	13	2.060	24	3.803	824	6709
11	85	8	1.268	11	1.743	679	7388
12	110	1	.158	3	.475	110	7498
13	140	0	.000	2	.317	0	7498
14	175	1	.158	2	.317	175	7673
15	215	1	.158	1	.158	215	7888
16	261	0	.000	0	.000	0	7888

(PROGRAM: W55041 (VERSION: 4000) 120 MAR 79)

AERODIVISION INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 4

BASED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 4600FT SITE EXPONENT: .1400

FOR THE PERIOD SEP ,1979 TO SEP ,1979

AVERAGE TEMPERATURE C. : 20.0

TOTAL HOURS OBSERVED -- 720

WINDSPD KPH (10M HT)	POWER (K/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	22	3.056	720	100.000	0	0
1	0	24	3.611	696	96.944	2	2
2	1	45	6.250	672	93.333	23	25
3	2	59	8.194	627	87.083	103	128
4	4	123	17.083	568	78.889	508	635
5	8	115	15.972	445	61.806	927	1562
6	14	85	11.806	330	45.833	1184	2746
7	22	67	9.306	245	34.028	1482	4228
8	33	56	7.778	178	24.722	1849	6077
9	47	32	4.444	122	16.944	1504	7581
10	64	26	3.611	90	12.500	1677	9258
11	86	15	2.083	64	8.889	1287	10545
12	111	16	2.222	49	6.806	1783	12328
13	142	6	.833	33	4.583	850	13178
14	177	6	.833	27	3.750	1062	14240
15	218	7	.972	21	2.917	1523	15763
16	264	3	.417	14	1.944	792	16556
17	317	6	.833	11	1.528	1901	18457
18	376	3	.417	5	.694	1126	19585
19	442	1	.139	2	.278	442	20027
20	516	1	.139	1	.140	516	20543
21	597	0	.000	0	.000	0	20543

[PROGRAM: WSSOR] [VERSION: A0001] [20 MAR 79]

AGRI-ENVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 4

BASED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 4600FT SITE EXPONENT: .1400

FOR THE PERIOD OCT ,1979 TO OCT ,1979

AVERAGE TEMPERATURE C. : 14.4

TOTAL HOURS OBSERVED -- 741

WINDSPEED MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (W/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	11	1.484	741	100.000	0	0
1	0	23	3.104	730	98.516	2	2
2	1	45	6.073	707	95.412	24	25
3	2	60	8.097	662	89.339	107	132
4	4	90	12.146	602	81.242	380	512
5	8	117	15.789	512	74.046	965	1478
6	14	87	11.741	395	53.306	1240	2718
7	23	55	7.422	308	41.565	1245	3963
8	34	46	6.208	253	34.143	1555	5518
9	48	31	4.184	207	27.935	1892	7009
10	66	27	3.644	176	23.752	1762	8792
11	88	22	2.969	149	20.108	1933	10724
12	114	20	2.699	127	17.139	2261	13006
13	145	24	3.239	107	14.400	3480	16486
14	181	14	1.889	83	11.201	2534	19022
15	223	22	2.969	64	9.312	4901	23922
16	270	18	2.424	47	6.343	4866	28789
17	324	7	.945	29	3.914	2270	31059
18	385	5	.675	22	2.969	1925	32984
19	453	1	.135	17	2.294	453	33436
20	528	7	.945	16	2.154	3696	37133
21	611	3	.405	9	1.215	1834	38966
22	703	2	.270	6	.810	1406	40372
23	803	0	.000	4	.540	0	40372
24	912	3	.405	4	.540	2737	43109
25	1031	1	.135	1	.135	1031	44141
26	1160	0	.000	0	.000	0	44141

(PROGRAM: W8500) (VERSION: A00MS) (20 MAR 79)

AERODIVISION INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 4

BASED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 4600FT SITE EXPONENT: .1400

FOR THE PERIOD NOV ,1979 TO NOV ,1979

AVERAGE TEMPERATURE C. : 8.9

TOTAL HOURS OBSERVED -- 720

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	13	1.806	720	100.000	0	0
1	0	14	1.944	707	98.194	1	1
2	1	23	3.194	693	96.250	12	13
3	2	38	5.278	670	93.056	69	83
4	4	31	4.306	632	87.778	134	217
5	8	52	7.222	601	83.472	439	655
6	15	47	6.528	549	76.250	685	1341
7	23	44	6.111	502	69.722	1019	2359
8	35	42	5.833	458	63.611	1451	3811
9	49	44	6.111	416	57.778	2165	5976
10	67	44	6.111	372	51.667	2970	8946
11	90	43	5.972	328	45.556	3863	12809
12	117	40	5.556	285	39.583	4666	17474
13	148	35	4.861	245	34.028	5190	22665
14	185	34	4.722	210	29.167	6297	28962
15	228	38	5.278	176	24.444	8657	37619
16	276	27	3.750	138	19.167	7465	45084
17	332	24	3.333	111	15.417	7959	53043
18	394	23	3.194	87	12.083	9054	62097
19	463	18	2.500	64	8.889	8334	70430
20	540	8	1.111	46	6.389	4320	74750
21	625	9	1.250	38	5.278	5626	80376
22	719	4	.556	29	4.028	2875	83251
23	821	0	.000	25	3.472	0	83251
24	933	2	.278	25	3.472	1866	85117
25	1055	2	.278	23	3.194	2109	87226
26	1166	4	.556	21	2.917	4745	91972
27	1329	4	.556	17	2.361	5314	97286
28	1482	2	.278	13	1.806	2963	100250
29	1646	1	.139	11	1.528	1646	101896
30	1822	3	.417	10	1.389	5467	107363
31	2011	3	.417	7	.972	6033	113396
32	2212	2	.278	4	.556	4424	117819
33	2426	0	.000	2	.278	0	117819
34	2653	1	.139	2	.278	2653	120472
35	2894	0	.000	1	.139	0	120472
36	3149	1	.139	1	.139	3149	123622
37	3419	0	.000	0	.000	0	123622

PROGRAM: #55081 (VERSION: 0001) (20 MAR 79)

AFROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 5

SED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 3250FT SITE EXPONENT: .1400

2 THE PERIOD JUL 1979 TO JUL 1979

AVERAGE TEMPERATURE C. : 23.3

TOTAL HOURS OBSERVED -- 154

WINDSPD MPH (10' HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (W/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	2	1.299	154	100.000	0	0
1	0	5	3.247	152	98.701	0	0
2	1	8	5.195	147	95.455	4	5
3	2	3	1.948	139	90.260	5	10
4	4	6	3.896	136	88.312	26	36
5	8	7	4.545	130	84.416	59	94
6	14	3	1.948	123	79.870	43	138
7	23	12	7.792	120	77.922	275	413
8	34	11	7.143	108	70.130	377	790
9	49	11	7.143	97	62.987	536	1326
10	67	17	11.039	86	55.844	1137	2463
11	89	8	5.195	69	44.805	712	3175
12	116	14	9.091	61	39.610	1618	4793
13	147	9	5.844	47	30.519	1323	6116
14	184	11	7.143	36	24.675	2019	8135
15	226	6	3.896	27	17.532	1354	9489
16	274	4	2.597	21	13.636	1096	10585
17	329	2	1.299	17	11.039	657	11242
18	390	5	3.247	15	9.740	1950	13192
19	459	2	1.299	10	6.494	918	14110
20	535	2	1.299	8	5.195	1070	15180
21	619	1	.649	6	3.896	619	15799
22	712	3	1.948	5	3.247	2137	17936
23	814	1	.649	2	1.299	814	18750
24	925	1	.649	1	.649	925	19674
25	1045	0	.000	0	.000	0	19674

LOGRAM: WSS001 (VERSION: APR051 120 MAY 79)

AERODYNAMIC INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 5

IED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 3250FT SITE EXPONENT: .1400

THE PERIOD AUG ,1979 TO AUG ,1979

AVERAGE TEMPERATURE C. : 22.8

TOTAL HOURS OBSERVED -- 731

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	15	2.052	731	100.000	0	0
1	0	37	5.062	716	97.948	2	2
2	1	34	4.651	679	92.886	18	21
3	2	34	4.651	645	88.235	62	82
4	4	23	3.146	611	83.584	99	181
5	8	42	5.746	568	80.438	352	533
6	14	31	4.241	546	74.692	489	982
7	23	52	7.114	515	70.451	1195	2177
8	34	40	6.019	463	63.338	1510	3687
9	49	36	4.925	419	57.319	1759	5446
10	67	59	8.071	383	52.394	3954	9400
11	89	55	7.524	324	44.323	4906	14306
12	116	45	6.156	269	36.799	5211	19517
13	147	49	6.703	224	30.643	7215	26732
14	164	34	5.194	175	23.940	6988	33721
15	226	24	3.283	137	18.741	5429	39149
16	275	26	3.557	113	15.458	7137	46287
17	324	20	2.736	87	11.902	6585	52872
18	391	19	2.599	67	9.166	7426	60298
19	460	18	2.462	48	6.566	8274	68573
20	536	10	1.368	30	4.104	5362	73930
21	621	11	1.505	20	2.736	6827	80762
22	714	5	.684	9	1.231	3568	84330
23	815	4	.547	4	.547	3262	87592
24	926	0	.000	0	.000	0	87592

PROGRAM: WS508) (VERSTON: ADDMS) (20 MAR 79)

AEROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 5

SED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 3250FT SITE EXPONENT: .1400

THE PERIOD SEP ,1979 TO SEP ,1979

AVERAGE TEMPERATURE C. : 20.0

TOTAL HOURS OBSERVED -- 425

WIND SPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	8	1.882	425	100.000	0	0
1	0	47	11.059	417	98.118	3	3
2	1	41	9.647	370	87.059	22	25
3	2	37	8.706	329	77.412	68	93
4	4	31	7.294	292	68.706	134	228
5	8	34	8.000	261	61.412	288	516
6	15	27	6.353	227	53.412	395	911
7	23	17	4.000	200	47.059	395	1306
8	35	21	4.941	183	43.659	729	2035
9	49	32	7.529	162	38.118	1581	3616
10	68	34	8.000	130	30.588	2305	5921
11	90	24	5.647	96	22.548	2165	8086
12	117	17	4.000	72	16.941	1991	10077
13	149	12	2.824	55	12.941	1787	11864
14	186	14	3.294	43	10.118	2604	14468
15	229	8	1.882	29	6.824	1830	16298
16	278	9	2.118	21	4.941	2499	18796
17	333	7	1.647	12	2.824	2331	21128
18	395	1	.235	5	1.176	395	21523
19	465	3	.706	4	.941	1395	22918
20	542	1	.235	1	.235	542	23460
21	628	0	.000	0	.000	0	23460

PROGRAM: W5501 (VERSION: ADAMS) (26 MAR 79)

AGROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 5

IED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 3250FT SITE EXPONENT: .1400

THE PERIOD OCT ,1979 TO OCT ,1979

AVERAGE TEMPERATURE C. : 14.4

TOTAL HOURS OBSERVED -- 202

WINDSPD MPH (10M HT)	POWER (K/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (K/M**2) (50M HT)	TOTAL ENERGY DENSITY (K/M**2) (50M HT)
0	0	0	.000	202	100.000	0	0
1	0	5	2.475	202	100.000	0	0
2	1	14	7.921	197	97.525	9	9
3	2	14	6.931	181	89.604	26	35
4	4	10	4.950	167	82.673	44	80
5	9	15	7.426	157	77.723	130	210
6	15	16	7.921	142	70.297	240	449
7	24	9	4.455	126	62.376	214	663
8	35	6	2.970	117	57.921	213	876
9	51	10	4.950	111	54.951	505	1381
10	69	12	5.941	101	50.000	832	2213
11	92	9	4.455	89	44.059	830	3043
12	120	9	4.455	80	39.604	1078	4121
13	152	8	3.960	71	35.149	1218	5339
14	190	5	2.475	63	31.188	951	6290
15	234	9	4.455	58	26.713	2105	8395
16	284	4	1.980	49	24.257	1135	9530
17	340	7	3.465	45	22.277	2383	11913
18	404	4	1.980	38	16.812	1617	13530
19	475	4	1.980	34	16.832	1901	15431
20	554	5	2.475	30	14.851	2772	18203
21	642	4	1.980	25	12.376	2567	20771
22	738	6	2.970	21	10.396	4428	25198
23	843	3	1.485	15	7.426	2530	27728
24	956	2	.990	12	5.941	1916	29644
25	1083	4	1.980	10	4.950	4331	33975
26	1218	3	1.485	6	2.970	3654	37629
27	1364	1	.495	3	1.485	1364	38993
28	1521	0	.000	2	.990	0	38993
29	1690	0	.000	2	.990	0	38993
30	1871	0	.000	2	.990	0	38993
31	2065	0	.000	2	.990	0	38993
32	2271	0	.000	2	.990	0	38993
33	2490	1	.495	2	.990	2490	41484
34	2724	0	.000	1	.495	0	41484
35	2971	0	.000	1	.495	0	41484
36	3233	1	.495	1	.495	3233	44717
37	3510	0	.000	0	.000	0	44717

LOGRAME MS508) (VERSION: ADDMS) (20 MAR 79)

AERONAVIGATION INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 5

IED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 3250FT SITE EXPONENT: .1400

THE PERIOD NOV ,1979 TO NOV ,1979

AVERAGE TEMPERATURE C. 1 8.9

TOTAL HOURS OBSERVED -- 720

WINDSPO MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	11	1.528	720	100.000	0	0
1	0	53	7.361	709	98.472	4	4
2	1	88	12.222	656	91.111	50	54
3	2	66	9.167	568	78.889	126	180
4	5	37	5.139	502	69.722	168	347
5	9	37	5.139	465	64.583	327	675
6	15	40	5.556	428	59.444	612	1286
7	24	42	5.833	386	53.889	1020	2306
8	36	32	4.444	346	48.056	1160	3466
9	52	42	5.833	314	43.611	2160	5634
10	71	47	6.528	272	37.778	3327	8961
11	94	24	3.889	225	31.250	2638	11600
12	122	31	4.306	197	27.361	3792	15392
13	156	20	2.778	166	23.056	3111	18503
14	194	29	4.028	146	20.278	5634	24136
15	239	17	2.361	117	16.250	4062	28198
16	290	20	2.778	100	13.889	5799	33998
17	348	14	1.944	80	11.111	4869	38867
18	413	10	1.389	66	9.167	4129	42996
19	486	12	1.667	56	7.778	5827	48823
20	566	17	1.667	44	6.111	6796	55619
21	656	4	.556	32	4.444	2623	58241
22	754	3	.417	28	3.889	2261	60503
23	861	4	.556	25	3.472	3445	63948
24	979	4	.556	21	2.917	3915	67863
25	1106	1	.139	17	2.361	1106	68969
26	1244	4	.556	16	2.222	4977	73946
27	1393	4	.556	12	1.667	5574	79520
28	1554	3	.417	8	1.111	4662	84182
29	1727	3	.417	5	.694	5180	89362
30	1911	0	.000	2	.278	0	89362
31	2109	0	.000	2	.278	0	89362
32	2320	2	.278	2	.278	4640	94002
33	2544	0	.000	0	.000	0	94002

PROGRAM: WS508) (VERSION: A00MS) (20 MAR 79)

AEROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 6

SED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 4350FT SITE EXPONENT: .1400

2 THE PERIOD JUN ,1979 TO JUN ,1979

AVERAGE TEMPERATURE C. : 17.8

TOTAL HOURS OBSERVED -- 542

WINDSPD NPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	9	1.661	542	100.000	0	0
1	0	27	4.982	533	98.339	2	2
2	1	23	4.244	506	93.358	12	14
3	2	34	6.273	483	89.114	60	74
4	4	27	4.992	449	82.841	113	188
5	8	42	7.749	427	77.860	305	532
6	14	47	8.672	380	70.111	647	1190
7	23	41	7.565	333	61.439	920	2123
8	34	38	7.011	292	53.875	1278	3401
9	48	34	6.273	254	46.863	1628	5029
10	66	47	8.672	220	40.590	3087	8115
11	87	30	5.535	173	31.919	2623	10738
12	113	29	5.351	143	26.384	3291	14029
13	144	24	4.428	114	21.033	3463	17492
14	180	20	3.690	90	16.605	3604	21097
15	222	15	2.768	70	12.915	3325	24422
16	269	10	2.583	55	10.148	3746	28188
17	323	7	1.292	41	7.565	2259	30447
18	383	7	1.292	34	6.273	2681	33128
19	450	5	.923	27	4.982	2252	35380
20	525	2	.369	22	4.059	1051	36431
21	608	3	.554	20	3.690	1825	38256
22	699	5	.923	17	3.137	3497	41752
23	799	2	.369	12	2.214	1598	43351
24	908	6	1.107	10	1.845	5448	48798
25	1026	1	.185	4	.738	1026	49824
26	1154	2	.369	3	.554	2309	52133
27	1293	1	.185	1	.185	1293	53426
28	1442	0	.000	0	.000	0	53426

PROGRAM: LSSOR (VERSION: ACDMS) (20 MAR 79)

AERONAUTICS INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 6

SED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 4350FT SITE EXPONENT: .1400

R THE PERIOD JUL ,1979 TO JUL ,1979

AVERAGE TEMPERATURE C. : 23.3

TOTAL HOURS OBSERVED -- 744

WIND SPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	36	4.839	744	100.000	0	0
1	0	33	4.435	708	95.161	2	2
2	1	31	4.167	675	90.726	16	18
3	2	50	7.258	644	86.559	94	142
4	4	54	7.258	590	79.301	222	333
5	8	47	6.317	536	72.043	377	711
6	14	51	6.855	489	65.726	707	1418
7	22	64	8.602	438	58.871	1409	2827
8	33	54	7.258	374	50.269	1775	4601
9	47	45	6.048	320	43.011	2106	6707
10	64	65	8.737	275	36.962	4172	10879
11	85	36	4.839	210	28.226	3075	13954
12	111	40	5.376	174	23.387	4436	18391
13	141	51	6.855	134	18.011	7192	25582
14	176	28	3.763	83	11.156	4931	30514
15	217	19	2.554	55	7.392	4116	34629
16	263	11	1.478	36	4.839	2892	37521
17	315	2	.269	25	3.360	631	38152
18	374	4	.538	23	3.091	1497	39649
19	440	3	.403	19	2.554	1321	40970
20	513	3	.403	16	2.151	1540	42510
21	594	6	.806	13	1.747	3566	46077
22	683	1	.134	7	.981	683	46760
23	781	2	.269	6	.806	1562	48322
24	887	3	.403	4	.538	2662	50984
25	1003	0	.000	1	.134	0	50984
26	1128	1	.134	1	.134	1128	52112
27	1263	0	.000	0	.000	0	52112

PROGRAM: WSS08) (VERSTON: 400MS) (20 MAR 79)

AERONVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 6

SED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 4350FT SITE EXPONENT: .1000

2 THE PERIOD AUG ,1979 TO AUG ,1979

AVERAGE TEMPERATURE C. : 22.8

TOTAL HOURS OBSERVED -- 744

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	41	5.511	744	100.000	0	0
1	0	58	7.796	703	94.489	4	4
2	1	49	6.586	645	86.694	25	29
3	2	56	7.527	596	80.108	97	126
4	4	61	8.199	540	72.581	251	377
5	8	43	5.780	479	64.382	346	723
6	14	60	8.065	436	58.602	834	1557
7	22	46	6.183	376	50.538	1015	2571
8	33	51	6.855	336	44.355	1680	4251
9	47	66	8.871	279	37.500	3095	7346
10	64	57	7.661	213	28.629	3666	11012
11	86	52	6.989	156	20.968	4452	15464
12	111	39	5.242	104	13.978	4335	19798
13	141	18	2.419	65	8.737	2544	22342
14	176	19	2.554	47	6.317	3353	25695
15	217	7	.941	28	3.763	1520	27215
16	263	10	1.344	21	2.823	2635	29849
17	316	10	1.344	11	1.478	3160	33009
18	375	1	.134	1	.134	375	33385
19	441	0	.000	0	.000	0	33385

PROGRAM: W550A) (VERSION: ADDMS) (20 MAR 79)

AGROENVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 6

SED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 4350FT SITE EXPONENT: .1400

R THE PERIOD SEP ,1979 TO SEP ,1979

AVERAGE TEMPERATURE C. : 20.0

TOTAL HOURS OBSERVED -- 573

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	78	13.613	573	100.000	0	0
1	0	45	7.853	495	86.387	3	3
2	1	52	9.075	450	78.534	27	30
3	2	49	8.551	398	69.459	86	116
4	4	65	11.344	349	60.906	271	387
5	6	48	8.377	284	49.564	390	777
6	14	46	8.028	236	41.187	647	1424
7	22	46	8.028	190	33.159	1027	2451
8	33	39	6.806	144	25.131	1300	3750
9	47	36	6.283	105	18.325	1768	5458
10	65	28	4.887	69	12.002	1822	7281
11	87	11	1.920	41	7.155	953	8233
12	112	8	1.396	30	5.236	960	9133
13	143	10	1.745	22	3.839	1430	10563
14	179	2	.349	12	2.094	357	10920
15	220	1	.175	10	1.745	220	11140
16	267	3	.524	9	1.571	800	11939
17	320	0	.000	6	1.047	0	11939
18	380	3	.524	6	1.047	1139	13078
19	446	1	.175	3	.524	446	13524
20	521	1	.175	2	.349	521	14045
21	603	1	.175	1	.175	603	14648
22	693	0	.000	0	.000	0	14648

PROGRAM: W55081 (VERSION: ADDMS1 (20 MAR 79)

AEROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 6

SED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 4350FT SITE EXPONENT: .1400

R THE PERIOD OCT ,1979 TO OCT ,1979

AVERAGE TEMPERATURE C. : 14.4

TOTAL HOURS OBSERVED -- 711

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	22	3.094	711	100.000	0	0
1	0	48	6.751	689	96.906	3	3
2	1	50	7.032	641	90.155	27	30
3	2	47	6.610	591	83.122	85	114
4	4	47	6.610	544	76.512	200	315
5	8	47	6.610	497	69.902	391	706
6	14	52	7.314	450	63.291	748	1454
7	23	50	7.032	396	55.978	1142	2596
8	34	44	6.470	348	48.945	1569	4165
9	49	38	5.345	302	42.475	1645	6010
10	67	43	6.048	264	37.131	2864	8874
11	89	33	4.641	221	31.083	2925	11799
12	115	37	5.204	186	26.442	4258	16057
13	146	34	4.782	151	21.238	4975	21032
14	183	19	2.672	117	16.456	3472	24508
15	225	21	2.954	98	13.783	4720	29225
16	273	15	2.110	77	10.830	8092	33317
17	327	7	.965	62	8.720	2290	35607
18	388	5	.703	55	7.736	1942	37549
19	457	6	.844	50	7.032	2741	40290
20	533	8	1.125	44	6.188	4262	44553
21	617	6	1.125	36	5.063	4934	49487
22	709	8	1.125	28	3.938	5673	55160
23	810	2	.281	20	2.813	1621	56781
24	921	1	.141	18	2.532	921	57702
25	1041	4	.563	17	2.391	4163	61864
26	1171	2	.261	13	1.828	2341	64206
27	1311	2	.281	11	1.547	2622	66827
28	1462	1	.141	9	1.266	1462	68289
29	1624	0	.000	8	1.125	0	68289
30	1798	2	.281	8	1.125	3596	71886
31	1984	1	.141	6	.844	1984	73870
32	2182	0	.000	5	.703	0	73870
33	2393	1	.141	5	.703	2393	76263
34	2618	1	.141	4	.563	2618	78881
35	2856	2	.281	3	.422	5711	84592
36	3107	1	.141	1	.141	3107	87699
37	3374	0	.000	0	.000	0	87699

PROGRAM: WS508) (VERSION: A0045) (20 MAR 79)

AEROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 6

BASED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 4350FT SITE EXPONENT: .1400

PERIOD: NOV ,1979 TO NOV ,1979

AVERAGE TEMPERATURE C. : 8.9

TOTAL HOURS OBSERVED -- 720

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	5	.694	720	100.000	0	0
1	0	44	6.111	715	99.306	3	3
2	1	33	4.583	671	93.194	18	21
3	2	30	4.167	638	88.611	55	76
4	4	23	3.194	608	84.444	100	176
5	9	16	2.222	585	81.250	136	313
6	15	22	3.056	569	79.026	320	636
7	23	13	1.806	547	75.972	304	940
8	35	20	2.778	534	74.167	697	1637
9	50	28	3.889	514	71.389	1396	3027
10	68	30	4.167	486	67.500	2063	5070
11	91	47	6.528	456	63.333	4260	9330
12	118	45	6.250	409	56.806	5295	14625
13	150	38	5.278	364	50.556	5685	20310
14	187	35	4.861	326	45.278	6540	26849
15	230	52	7.222	291	40.417	11951	38800
16	279	36	5.000	239	33.194	10041	48841
17	335	24	3.333	203	28.194	8020	56870
18	397	33	4.583	179	24.861	13165	69976
19	467	23	3.194	146	20.278	10742	80718
20	545	32	4.444	123	17.083	17432	98150
21	631	21	2.917	91	12.639	13243	111393
22	725	15	2.083	70	9.722	10876	122269
23	829	13	1.806	55	7.639	10771	133040
24	941	8	1.111	42	5.833	7531	140571
25	1064	8	1.111	34	4.722	8512	149083
26	1197	11	1.528	26	3.611	13165	162248
27	1340	6	.833	15	2.083	8042	170290
28	1495	4	.556	9	1.250	5979	176269
29	1661	2	.278	5	.694	3322	179590
30	1839	1	.139	3	.417	1839	181429
31	2029	2	.278	2	.278	4057	185486
32	2231	0	.000	0	.000	0	185486

PROGRAM: W55081 (VERSION: ADD'51 (20 MAR 79)

AERODYNAMIC INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 7

SED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 5161FT SITE EXPONENT: .1400

R THE PERIOD JUL ,1979 TO JUL ,1979

AVERAGE TEMPERATURE C. : 23.3

TOTAL HOURS OBSERVED -- 299

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	4	1.338	299	100.000	0	0
1	0	3	1.003	295	96.662	0	0
2	0	5	1.672	292	97.659	2	3
3	2	12	4.013	287	95.987	20	23
4	4	9	3.010	275	91.973	36	59
5	8	16	6.020	266	88.963	140	199
6	13	11	3.679	244	82.943	148	347
7	21	9	3.010	237	79.264	192	539
8	32	16	5.351	228	76.254	510	1048
9	45	20	6.669	212	70.903	907	1955
10	62	11	3.679	192	64.214	684	2640
11	83	15	5.017	181	60.535	1242	3882
12	108	27	9.030	166	55.518	2903	6785
13	137	15	5.017	139	46.488	2050	8836
14	171	15	5.017	124	41.472	2561	11397
15	210	27	9.030	109	36.455	5670	17067
16	255	25	8.361	82	27.425	6371	23438
17	306	22	7.358	57	19.060	6725	30163
18	363	10	3.344	35	11.706	3629	33792
19	427	7	2.341	25	8.361	2987	36779
20	498	3	1.003	18	6.020	1493	38273
21	576	6	2.007	15	5.017	3457	41730
22	663	3	1.003	9	3.010	1988	43718
23	757	2	.669	6	2.007	1514	45232
24	860	2	.669	4	1.338	1720	46952
25	972	1	.334	2	.669	972	47924
26	1094	1	.334	1	.334	1094	49018
27	1225	0	.000	0	.000	0	49018

PROGRAM: W550F1 (VERSION: 4000) 120 MAR 79

AEROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 7

SED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 5181 FT SITE EXPONENT: .1400

R THE PERIOD AUG ,1979 TO AUG ,1979

AVERAGE TEMPERATURE C. : 22.8

TOTAL HOURS OBSERVED -- 744

WIND SPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (W/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	1	.134	744	100.000	0	0
1	0	9	1.210	743	99.866	1	1
2	0	38	5.108	734	98.656	19	20
3	2	64	8.602	696	93.548	108	127
4	4	67	9.005	632	84.946	267	395
5	8	53	7.124	565	75.941	413	808
6	13	40	5.376	512	68.817	539	1347
7	21	46	6.183	472	63.441	984	2330
8	32	38	5.108	426	57.256	1213	3544
9	45	37	4.973	388	52.151	1682	5226
10	62	39	5.242	351	47.177	2432	7657
11	83	35	4.704	312	41.935	2905	10562
12	108	34	4.570	277	37.231	3664	14226
13	137	42	5.645	243	32.661	5754	19980
14	171	43	5.780	201	27.016	7358	27337
15	210	28	3.763	158	21.237	5893	33230
16	255	26	3.495	130	17.473	6641	39871
17	306	23	3.091	104	13.978	7046	46917
18	364	28	3.763	81	10.887	10183	57100
19	428	18	2.419	53	7.124	7699	64799
20	499	14	1.882	35	4.704	6984	71783
21	577	10	1.344	21	2.823	5775	77557
22	664	6	.806	11	1.478	3984	81541
23	759	3	.403	5	.672	2276	83817
24	862	1	.134	2	.269	862	84679
25	974	1	.134	1	.134	974	85654
26	1096	0	.000	0	.000	0	85654

PROGRAM: W55001 (VERSION: 1000) (20 MAR 79)

AFROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 504 SITE 7

SED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 5181 FT SITE EXPONENT: .1400

R THE PERIOD SEP ,1979 TO SEP ,1979

AVERAGE TEMPERATURE C. : 20.0

TOTAL HOURS OBSERVED -- 720

WIND SPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	22	3.056	720	100.000	0	0
1	0	25	3.472	698	96.944	2	2
2	1	28	3.889	673	93.472	14	16
3	2	30	4.167	645	89.583	51	67
4	4	38	5.278	615	85.417	150	220
5	8	45	6.250	577	80.139	355	575
6	14	60	8.333	532	73.889	818	1393
7	22	59	8.194	472	65.556	1277	2671
8	32	57	7.917	413	57.361	1842	4513
9	46	57	7.917	356	49.444	2623	7135
10	63	65	9.028	299	41.528	4103	11238
11	84	49	6.806	234	32.500	4116	15354
12	109	34	4.722	185	25.694	3708	19063
13	139	45	6.250	151	20.972	6240	25303
14	173	34	5.417	106	14.722	6755	32057
15	213	26	3.669	67	9.306	5965	38022
16	259	13	1.806	39	5.417	3361	41383
17	310	6	.833	26	3.611	1861	43243
18	368	8	1.111	20	2.778	2945	46188
19	433	5	.694	12	1.667	2165	48353
20	505	3	.417	7	.972	1515	49868
21	585	3	.417	4	.556	1754	51621
22	672	1	.139	1	.139	672	52293
23	768	0	.000	0	.000	0	52293

PROGRAM: W55081 (VERSION: ADAMS) (20 MAR 79)

AEROENVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 7

SED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 5181FT SITE EXPONENT: .1400

R THE PERIOD OCT ,1979 TO OCT ,1979

AVERAGE TEMPERATURE C. : 14.4

TOTAL HOURS OBSERVED -- 744

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	13	1.747	744	100.000	0	0
1	0	30	4.032	731	98.253	2	2
2	1	49	6.586	701	94.220	25	27
3	2	30	4.032	652	87.634	52	80
4	4	47	6.317	622	83.602	194	274
5	8	35	4.704	575	77.285	283	557
6	14	39	5.242	540	72.541	545	1101
7	22	49	6.586	501	67.339	1084	2185
8	33	46	6.183	452	60.753	1522	3710
9	47	44	5.914	406	54.570	2073	5783
10	65	40	5.386	362	48.654	3167	8951
11	86	45	6.048	313	42.070	3871	12822
12	112	37	4.973	268	36.022	4133	16955
13	142	19	2.554	231	31.048	2698	19653
14	177	24	3.226	212	28.495	4257	23910
15	216	25	3.360	188	25.269	5454	29364
16	265	31	4.167	163	21.909	8207	37571
17	316	24	3.226	132	17.742	7622	45193
18	377	21	2.823	108	14.516	7916	53109
19	443	11	1.478	87	11.694	4877	57986
20	517	12	1.613	76	10.215	6205	64191
21	599	6	.806	64	8.602	3592	67783
22	688	3	.403	58	7.796	2065	69848
23	786	4	.538	55	7.392	3146	72993
24	894	2	.269	51	6.855	1787	74781
25	1010	4	.538	49	6.586	4040	78820
26	1136	7	.941	45	6.048	7953	86773
27	1272	9	1.210	38	5.108	11450	98223
28	1419	3	.403	29	3.898	4257	102480
29	1576	5	.672	26	3.495	7882	110362
30	1745	4	.538	21	2.823	6981	117343
31	1926	2	.269	17	2.285	3851	121195
32	2118	1	.134	15	2.016	2118	123313
33	2323	0	.000	14	1.882	0	123313
34	2541	1	.134	14	1.882	2541	125853
35	2771	2	.269	13	1.747	5543	131396
36	3016	2	.269	11	1.478	6031	137427
37	3274	2	.269	9	1.210	6548	143976
38	3547	0	.000	7	.941	0	143976
39	3834	0	.000	7	.941	0	143976
40	4137	1	.134	7	.941	4137	148113
41	4455	0	.000	6	.806	0	148113
42	4789	2	.269	6	.806	9578	157690
43	5139	1	.134	4	.538	5139	162829

44	5506	0	.060	3	.403	0	162829
45	5890	2	.269	3	.403	11780	174610
46	6292	1	.134	1	.134	6292	180901
47	6711	0	.000	0	.000	0	180901

PROGRAM: #5508 (VERSION: ADAMS) (20 MAR 79)

AEROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 7

BASED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 5181 FT SITE EXPONENT: .1400

IN THE PERIOD NOV ,1979 TO NOV ,1979

AVERAGE TEMPERATURE C. : 8.9

TOTAL HOURS OBSERVED -- 720

WIND SPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	14	1.944	720	100.000	0	0
1	0	21	2.917	706	98.056	1	1
2	1	33	4.583	685	95.139	17	19
3	2	37	5.139	652	90.956	66	85
4	4	33	4.583	615	85.417	180	225
5	8	43	5.972	582	80.833	354	580
6	14	55	7.639	539	74.861	786	1366
7	23	63	8.750	484	67.222	1429	2795
8	34	50	6.944	421	58.472	1693	4488
9	48	52	7.222	371	51.524	2507	6995
10	66	33	4.583	319	44.306	2182	9177
11	88	26	3.611	286	39.722	2269	11465
12	114	22	3.056	260	36.111	2514	13980
13	145	16	2.222	238	33.056	2325	16304
14	181	18	2.500	222	30.833	3266	19571
15	223	11	1.528	204	28.333	2855	22026
16	271	19	2.639	193	26.806	5147	27172
17	325	15	2.083	174	24.167	4878	32046
18	386	10	1.389	159	22.083	3857	35903
19	454	7	.972	149	20.694	3175	39078
20	529	16	2.222	142	19.722	4465	47543
21	612	20	2.778	126	17.500	12249	59792
22	704	11	1.528	106	14.722	7746	67537
23	805	9	1.250	95	13.194	7242	74779
24	914	8	1.111	86	11.944	7314	82093
25	1033	9	1.250	78	10.833	9300	91392
26	1162	15	2.083	69	9.583	17435	108827
27	1302	10	1.389	54	7.500	13017	121844
28	1452	8	1.111	44	6.111	11614	133458
29	1613	8	1.111	36	5.000	12903	146361
30	1786	6	.833	28	3.889	10713	157074
31	1970	7	.972	22	3.056	13791	170865
32	2167	7	.972	15	2.083	15169	186034
33	2377	4	.556	8	1.111	9506	195540
34	2599	3	.417	4	.556	7798	203338
35	2835	1	.139	1	.139	2835	206173
36	3085	0	.000	0	.000	0	206173

PROGRAM: W550A1 (VERSION: AQDMS) (20 MAR 79)

AERODIVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE A

BASED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 4250FT SITE EXPONENT: .1400

PERIOD: JUL 1979 TO JUL 1979

AVERAGE TEMPERATURE C. : 23.3

TOTAL HOURS OBSERVED -- 156

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	18	11.538	156	100.000	0	0
1	0	11	7.051	138	84.462	1	1
2	1	15	9.615	127	81.410	8	8
3	2	23	14.744	112	71.795	40	48
4	4	26	16.667	89	57.051	107	156
5	8	34	21.795	63	40.385	274	429
6	14	18	11.538	29	18.590	250	680
7	22	4	2.564	11	7.051	88	768
8	33	4	2.564	7	4.087	132	900
9	47	0	.000	3	1.923	0	900
10	64	0	.000	3	1.923	0	900
11	86	2	1.282	3	1.923	172	1072
12	111	0	.000	1	.641	0	1072
13	142	1	.641	1	.641	142	1213
14	177	0	.000	0	.000	0	1213

PROGRAM: W9508 (VERSION: A00MS) (20 MAR 79)

AEROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 8

BASED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 4250FT SITE EXPONENT: .1100

PERIOD: AUG ,1979 TO AUG ,1979

AVERAGE TEMPERATURE C. : 22.8

TOTAL HOURS OBSERVED -- 696

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	41	5.891	696	100.000	0	0
1	0	55	7.902	655	94.109	4	4
2	1	87	12.500	600	86.207	45	48
3	2	118	16.954	513	73.707	206	254
4	4	111	15.948	395	56.753	459	713
5	8	104	14.943	284	40.805	839	1552
6	14	92	13.218	180	25.862	1283	2835
7	22	46	6.609	88	12.644	1019	3854
8	33	19	2.730	42	6.034	628	4482
9	47	12	1.724	23	3.305	565	5047
10	65	7	1.006	11	1.580	452	5499
11	86	2	.287	4	.575	172	5671
12	112	1	.144	2	.287	112	5782
13	142	0	.000	1	.144	0	5782
14	177	0	.000	1	.144	0	5782
15	218	0	.000	1	.144	0	5782
16	264	1	.144	1	.144	264	6047
17	317	0	.000	0	.000	0	6047

PROGRAM: W95081 (VERSION: ADDMS) (20 MAR 79)

AERODVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 8

IED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 4250FT SITE EXPONENT: .1400

THE PERIOD SEP ,1979 TO SEP ,1979

AVERAGE TEMPERATURE C. : 20.0

TOTAL HOURS OBSERVED -- 559

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	32	5.725	559	100.000	0	0
1	0	48	8.587	527	94.275	3	3
2	1	102	18.247	479	85.689	53	56
3	2	100	17.889	377	67.442	176	233
4	4	96	17.174	277	49.553	401	634
5	8	67	11.986	181	32.379	547	1181
6	14	55	9.839	114	20.394	776	1957
7	22	23	4.114	59	10.555	515	2473
8	33	10	1.789	36	6.440	334	2807
9	48	4	.716	26	4.651	190	2998
10	65	3	.537	22	3.936	196	3194
11	87	6	1.073	19	3.399	522	3715
12	113	2	.358	13	2.326	226	3941
13	144	4	.716	11	1.968	574	4515
14	179	1	.179	7	1.252	179	4694
15	220	3	.537	6	1.073	661	5356
16	268	2	.358	3	.537	535	5891
17	321	1	.179	1	.179	321	6212
18	381	0	.000	0	.000	0	6212

PROGRAM: MS5081 (VERSTON) ADAMS) (20 MAR 79)

AEROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 8

SED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 4250FT SITE EXPONENT: .1400

THE PERIOD OCT ,1979 TO OCT ,1979

AVERAGE TEMPERATURE C. : 14.4

TOTAL HOURS OBSERVED -- 470

WNCSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	3	.638	470	100.000	0	0
1	0	25	5.319	467	99.362	2	2
2	1	25	5.319	442	94.043	13	15
3	2	53	11.277	417	88.723	96	111
4	4	55	11.702	364	77.447	235	346
5	8	65	13.830	309	65.745	543	889
6	14	66	14.043	244	51.915	953	1842
7	23	51	10.851	178	37.872	1169	3011
8	34	33	7.021	127	27.021	1129	4141
9	49	29	6.170	94	20.000	1413	5554
10	67	21	4.468	65	13.830	1404	6958
11	89	18	3.830	44	9.362	1601	8559
12	116	6	1.277	26	5.532	693	9252
13	147	2	.426	20	4.255	294	9546
14	183	5	1.064	18	3.830	917	10463
15	226	3	.638	13	2.766	677	11140
16	274	3	.638	10	2.128	821	11961
17	328	2	.426	7	1.489	657	12618
18	390	3	.638	5	1.064	1170	13788
19	458	2	.426	2	.426	917	14705
20	535	0	.000	0	.000	0	14705

PROGRAM: W85081 (VERSION: A00MS) (20 MAR 79)

AEROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 8

BASED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 4250FT SITE EXPONENT: .1400

FOR THE PERIOD NOV ,1979 TO NOV ,1979

AVERAGE TEMPERATURE C. : 8.9

TOTAL HOURS OBSERVED -- 720

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	9	1.250	720	100.000	0	0
1	0	29	4.028	711	98.750	2	2
2	1	34	4.722	682	94.722	19	21
3	2	40	5.556	648	90.000	74	94
4	4	51	7.083	608	84.444	223	317
5	9	36	5.000	557	77.361	308	625
6	15	47	6.528	521	72.361	694	1319
7	23	42	5.833	474	65.833	984	2303
8	35	44	6.111	432	60.000	1540	3843
9	50	37	5.139	388	53.889	1843	5686
10	68	43	5.972	351	48.750	2939	8625
11	91	35	4.861	308	42.778	3184	11808
12	118	26	3.611	273	37.917	3070	14879
13	150	34	4.722	247	34.306	5105	19983
14	188	18	2.500	213	29.583	3375	23359
15	231	35	4.861	195	27.083	8073	31431
16	280	29	4.028	160	22.222	8118	39549
17	336	22	3.056	131	18.194	7387	46936
18	399	11	1.528	109	15.139	4384	51320
19	469	12	1.667	98	13.611	5625	56945
20	547	15	2.083	86	11.944	8201	65145
21	633	19	2.639	71	9.861	12025	77170
22	728	14	1.944	52	7.222	10187	87358
23	831	10	1.389	38	5.278	8315	95673
24	945	7	.972	24	3.889	6613	102286
25	1068	7	.972	21	2.917	7475	109760
26	1201	2	.278	14	1.944	2402	112162
27	1345	4	.556	12	1.667	5360	117543
28	1500	2	.278	8	1.111	3000	120543
29	1667	0	.000	6	.833	0	120543
30	1845	1	.139	6	.833	1845	122388
31	2036	1	.139	5	.694	2036	124424
32	2239	1	.139	4	.556	2239	126664
33	2456	0	.000	3	.417	0	126664
34	2686	1	.139	3	.417	2686	129350
35	2930	2	.278	2	.278	5860	135210
36	3188	0	.000	0	.000	0	135210

PROGRAM: W5508 (VERSION: ADDMS) (20 MAR 79)

AEROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PRNJ 505 SITE 9

BASED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 5400FT SITE EXPONENT: .1400

FOR THE PERIOD MAY ,1979 TO MAY ,1979

AVERAGE TEMPERATURE C. : 13.3

TOTAL HOURS OBSERVED -- 709

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	0	.000	709	100.000	0	0
1	0	2	.282	709	100.000	0	0
2	1	18	2.539	707	99.718	9	9
3	2	31	4.372	689	97.179	54	63
4	4	36	5.078	658	92.807	148	212
5	8	35	4.937	622	87.729	282	494
6	14	38	5.360	587	82.793	529	1022
7	22	38	5.360	549	77.433	840	1862
8	33	51	7.193	511	72.073	1682	3544
9	47	36	5.078	460	64.880	1691	5235
10	64	47	6.629	424	59.803	3028	8263
11	86	35	4.937	377	53.173	3001	11265
12	111	29	4.090	342	48.237	3229	14493
13	142	34	4.795	313	44.147	4813	19306
14	177	35	4.937	279	39.351	6188	25493
15	217	42	5.924	244	34.415	9132	34626
16	264	31	4.372	202	28.491	8181	42806
17	317	40	5.642	171	24.118	12661	55467
18	376	40	5.642	131	18.477	15029	70497
19	442	25	3.526	91	12.835	11048	81544
20	515	22	3.103	66	9.309	11339	92884
21	597	6	.846	44	6.206	3580	96463
22	686	6	.846	38	5.360	4116	100580
23	784	5	.705	32	4.513	3919	104499
24	891	7	.987	27	3.808	6234	110733
25	1007	2	.282	20	2.821	2013	112747
26	1132	1	.141	18	2.539	1132	113879
27	1268	1	.141	17	2.398	1268	115147
28	1414	5	.705	16	2.257	7071	122219
29	1571	1	.141	11	1.551	1571	123790
30	1740	1	.141	10	1.410	1740	125529
31	1919	4	.564	9	1.269	7677	133207
32	2111	2	.282	5	.705	4222	137429
33	2315	2	.282	3	.423	4631	142060
34	2532	1	.141	1	.141	2532	144592
35	2762	0	.000	0	.000	0	144592

{PROGRAM: W5508} {VERSION: ADDMS} {20 MAR 79}

AEROVIRONMENT INC.

WIND ENRGY ASSESSMENT STUDY PROJ 505 SITE 9

BASED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 5400FT SITE EXPONENT: .1400

FOR THE PERIOD JUN ,1979 TO JUN ,1979

AVERAGE TEMPERATURE C. : 17.8

TOTAL HOURS OBSERVED -- 720

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	6	.833	720	100.000	0	0
1	0	9	1.250	714	99.167	1	1
2	1	16	2.222	705	97.917	8	9
3	2	32	4.444	689	95.694	55	63
4	4	27	3.750	657	91.250	109	172
5	8	20	2.778	630	87.500	158	330
6	14	31	4.306	610	84.722	423	754
7	22	22	3.056	579	80.417	477	1231
8	32	12	1.667	557	77.361	388	1619
9	46	19	2.639	545	75.694	875	2494
10	63	23	3.194	526	73.056	1454	3948
11	84	23	3.194	503	69.861	1935	5883
12	109	13	1.806	480	66.667	1420	7303
13	139	35	4.861	467	64.861	4860	12163
14	173	43	5.972	432	60.000	7458	19621
15	213	38	5.278	389	54.028	8106	27727
16	259	36	5.000	351	48.750	9320	37046
17	311	41	5.694	315	43.750	12731	49778
18	369	32	4.444	274	38.056	11795	61573
19	434	42	5.833	242	33.611	18208	79781
20	506	49	6.806	200	27.778	24776	104557
21	585	34	4.722	151	20.972	19901	124459
22	673	30	4.167	117	16.250	20190	144649
23	769	21	2.917	87	12.083	16149	160798
24	874	19	2.639	66	9.167	16601	177399
25	988	15	2.083	47	6.528	14814	192213
26	1111	10	1.389	32	4.444	11109	203322
27	1244	9	1.250	22	3.056	11196	214518
28	1387	2	.278	13	1.806	2775	217293
29	1541	2	.278	11	1.528	3083	220376
30	1707	4	.556	9	1.250	6826	227202
31	1883	0	.000	5	.694	0	227202
32	2071	3	.417	5	.694	6213	233415
33	2271	1	.139	2	.278	2271	235687
34	2484	1	.139	1	.139	2484	238171
35	2710	0	.000	0	.000	0	238171

(PROGRAM: WS50R) (VERSION: ADDMS) (20 MAR 79)

AEROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 9

BASED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 5400FT SITE EXPONENT: .1400

FOR THE PERIOD JUL ,1979 TO JUL ,1979

AVERAGE TEMPERATURE C. : 23.3

TOTAL HOURS OBSERVED -- 744

WINDSPD MPH (50M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	3	.403	744	100.000	0	0
1	0	13	1.747	741	99.597	1	1
2	0	18	2.419	728	97.849	9	10
3	2	37	4.973	710	95.430	62	71
4	4	21	2.823	673	90.457	83	154
5	8	24	3.763	652	87.634	216	370
6	13	25	3.360	624	83.871	333	704
7	21	30	4.032	599	80.511	635	1339
8	32	21	2.823	569	76.479	664	2002
9	45	31	4.167	548	73.656	1395	3397
10	62	40	5.376	517	69.489	2468	5865
11	82	42	5.645	477	64.113	3450	9315
12	107	25	3.360	435	58.468	2666	11981
13	136	47	6.317	410	55.108	6372	18353
14	169	32	4.301	363	48.790	5419	23772
15	208	43	5.780	331	44.489	8956	32727
16	253	52	6.989	288	38.710	13144	45871
17	303	36	4.839	236	31.720	10915	56786
18	360	25	3.360	200	26.882	8997	65784
19	423	24	3.226	175	23.522	10159	75942
20	494	37	4.973	151	20.296	18266	94209
21	572	27	3.629	114	15.323	15431	109639
22	657	19	2.554	87	11.694	12485	122124
23	751	21	2.823	68	9.140	15768	137892
24	853	9	1.210	47	6.317	7678	145569
25	964	12	1.613	38	5.108	11571	157140
26	1085	8	.134	26	3.495	1085	158225
27	1215	9	1.210	25	3.360	10932	169157
28	1355	4	.538	16	2.151	5419	174576
29	1505	3	.403	12	1.613	4515	179091
30	1666	1	.134	9	1.210	1666	180757
31	1838	0	.000	8	1.075	0	180757
32	2022	1	.134	8	1.075	2022	182779
33	2218	3	.403	7	.941	6653	189432
34	2425	0	.000	4	.538	0	189432
35	2646	1	.134	4	.538	2646	192078
36	2879	0	.000	3	.403	0	192078
37	3126	3	.403	3	.403	9378	201456
38	3386	0	.000	0	.000	0	201456

[PROGRAM: WS508] [VERSION: AQDMS] [20 MAR 79]

AEROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 9

BASED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 5400FT SITE EXPONENT: .1400

FOR THE PERIOD AUG ,1979 TO AUG ,1979

AVERAGE TEMPERATURE C. : 22.8

TOTAL HOURS OBSERVED -- 378

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	6	1.587	378	100.000	0	0
1	0	7	1.852	372	98.413	0	0
2	0	8	2.116	365	96.561	4	4
3	2	8	2.116	357	94.444	13	18
4	4	10	2.646	349	92.328	40	57
5	8	22	5.820	339	89.683	170	227
6	13	21	5.556	317	83.862	281	508
7	21	18	4.762	296	78.307	382	890
8	32	23	6.085	278	73.505	728	1618
9	45	20	5.291	255	67.060	902	2520
10	62	40	10.582	235	62.169	2474	4994
11	82	19	5.026	195	51.587	1564	6558
12	107	30	7.937	176	46.561	3206	9760
13	136	19	5.026	146	38.624	2582	12346
14	170	23	6.085	127	33.598	3903	16249
15	209	26	6.878	104	27.513	5427	21676
16	253	21	5.556	78	20.635	5320	26996
17	304	16	4.233	57	15.079	4862	31857
18	361	21	5.556	41	10.847	7574	39432
19	424	2	.529	20	5.291	848	40280
20	495	6	1.587	18	4.762	2969	43249
21	573	1	.265	12	3.175	573	43822
22	659	2	.529	11	2.910	1317	45139
23	752	2	.529	9	2.381	1505	46644
24	855	1	.265	7	1.852	855	47499
25	966	0	.000	6	1.587	0	47499
26	1087	0	.000	6	1.587	0	47499
27	1217	1	.265	6	1.587	1217	48716
28	1358	1	.265	5	1.323	1358	50074
29	1508	1	.265	4	1.058	1508	51582
30	1670	3	.794	3	.794	5010	56592
31	1842	0	.000	0	.000	0	56592

[PROGRAM: WSS08] [VERSION: AODMS] [20 MAR 79]

AEROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PRNJ 505 SITE 9

BASED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 5400FT SITE EXPONENT: .1400

FOR THE PERIOD SEP ,1979 TO SEP ,1979

AVERAGE TEMPERATURE C. : 20.0

TOTAL HOURS OBSERVED -- 563

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	1	.178	563	100.000	0	0
1	0	5	.888	562	99.822	0	0
2	1	9	1.599	557	98.934	5	5
3	2	26	4.618	548	97.336	44	49
4	4	24	4.263	522	92.718	96	145
5	8	28	4.973	498	88.455	219	364
6	14	33	5.861	470	83.481	486	810
7	21	35	6.217	437	77.620	752	1562
8	32	36	6.394	402	71.403	1154	2716
9	46	37	6.572	366	65.009	1689	4405
10	63	47	8.348	329	58.437	2943	7347
11	83	50	8.881	282	50.089	4167	11514
12	108	34	6.039	232	41.208	3678	15192
13	138	59	10.480	198	35.169	8115	23307
14	172	29	5.151	139	24.689	4982	28289
15	211	28	4.973	110	19.538	5916	34206
16	256	19	3.375	82	14.565	4872	39078
17	308	22	3.908	63	11.190	6767	45845
18	365	12	2.131	41	7.282	4381	50226
19	429	7	1.243	29	5.151	3006	53232
20	501	8	1.421	22	3.908	4007	57239
21	580	1	.178	14	2.487	580	57819
22	667	8	1.421	13	2.309	5333	63152
23	762	4	.710	5	.888	3047	66199
24	865	1	.178	1	.178	865	67065
25	978	0	.000	0	.000	0	67065

[PROGRAM: WS508] [VERSION: AODMS] [20 MAR 79]

AEROVIRONMENT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 9

BASED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 5400FT SITE EXPONENT: .1400

FOR THE PERIOD OCT ,1979 TO OCT ,1979

AVERAGE TEMPERATURE C. : 14.4

TOTAL HOURS OBSERVED -- 686

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	1	.146	686	100.000	0	0
1	0	4	.583	685	99.854	0	0
2	1	7	1.020	681	99.271	4	4
3	2	15	2.187	674	98.251	26	30
4	4	23	3.353	659	96.064	94	124
5	8	23	3.353	636	92.711	184	309
6	14	23	3.353	613	89.359	319	627
7	22	1	5.977	590	86.006	902	1529
8	33	1	5.248	549	80.029	1182	2711
9	47	1	4.665	513	74.781	1496	4207
10	64	1	4.373	481	70.117	1924	6131
11	85	44	6.997	451	65.743	4097	10228
12	111	44	6.997	403	58.746	5319	15547
13	141	34	4.956	355	51.749	4790	20337
14	176	41	5.977	321	46.793	7215	27552
15	216	43	6.268	280	40.816	9307	36858
16	263	39	5.685	237	34.548	10244	47102
17	315	39	5.685	198	28.863	12287	59390
18	374	31	4.519	159	23.178	11594	70983
19	440	26	3.740	128	18.659	11436	82420
20	513	20	2.915	102	14.869	10260	92680
21	594	13	1.895	82	11.953	7721	100401
22	683	10	1.458	69	10.058	6828	107229
23	780	14	2.041	59	8.601	10923	118152
24	887	7	1.020	45	6.560	6206	124358
25	1002	11	1.603	38	5.539	11022	135380
26	1127	5	.729	27	3.936	5636	141015
27	1262	4	.583	22	3.207	5049	146064
28	1408	5	.729	18	2.624	7039	153103
29	1564	3	.437	13	1.895	4692	157795
30	1731	2	.292	10	1.458	3463	161258
31	1910	0	.000	8	1.166	0	161258
32	2101	1	.146	8	1.166	2101	163359
33	2305	3	.437	7	1.020	6914	170273
34	2520	2	.292	4	.583	5041	175314
35	2749	1	.146	2	.292	2749	178063
36	2992	1	.146	1	.146	2992	181055
37	3248	0	.000	0	.000	0	181055

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(PROGRAM: WS508) (VERSION: ADDMS) (20 MAR 79)

AERDVIORNMNT INC.

WIND ENERGY ASSESSMENT STUDY PROJ 505 SITE 9

BASED ON DATA AVAILABLE AS OF 11/JAN/80

SITE ALTITUDE: 5400FT SITE EXPONENT: .1400

FOR THE PERIOD NOV ,1979 TO NOV ,1979

AVERAGE TEMPERATURE C. : 8.9

TOTAL HOURS OBSERVED -- 720

WINDSPD MPH (10M HT)	POWER (W/M**2)	HOURS PERIOD	RELATIVE FREQUENCY	CUMULATIVE HOURS	CUMULATIVE RELATIVE FREQUENCY	ENERGY DENSITY (WH/M**2) (50M HT)	TOTAL ENERGY DENSITY (WH/M**2) (50M HT)
0	0	0	.000	720	100.000	0	0
1	0	4	.556	720	100.000	0	0
2	1	10	1.389	716	99.444	5	6
3	2	9	1.250	706	98.056	16	21
4	4	8	1.111	697	96.806	34	55
5	8	18	2.500	689	95.694	148	203
6	14	13	1.806	671	93.194	184	387
7	23	20	2.778	658	91.389	450	837
8	34	23	3.194	638	88.611	773	1610
9	48	24	3.333	615	85.417	1148	2758
10	66	27	3.750	591	82.083	1772	4530
11	87	34	4.722	564	78.333	2970	7499
12	113	20	2.778	530	73.611	2268	9767
13	144	30	4.167	510	70.833	4325	14092
14	180	21	2.917	480	66.667	3781	17874
15	221	38	5.278	459	63.750	8416	26290
16	269	25	3.472	421	58.472	6720	33009
17	322	28	3.889	396	55.000	9027	42037
18	383	27	3.750	368	51.111	10333	52370
19	450	31	4.306	341	47.361	13953	66323
20	525	26	3.611	310	43.056	13649	79972
21	608	41	5.694	284	39.444	24917	104888
22	699	39	5.417	243	33.750	27251	132139
23	798	36	5.000	204	28.333	28743	160882
24	907	30	4.167	168	23.333	27215	188097
25	1025	37	5.139	138	19.167	37937	226034
26	1153	29	4.028	101	14.028	33448	259482
27	1292	25	3.472	72	10.000	32291	291772
28	1441	18	2.500	47	6.528	25929	317702
29	1600	11	1.528	29	4.028	17605	335306
30	1772	9	1.250	18	2.500	15946	351252
31	1955	7	.972	9	1.250	13684	364937
32	2150	1	.139	2	.278	2150	367087
33	2358	1	.139	1	.139	2358	369446
34	2579	0	.000	0	.000	0	369446

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