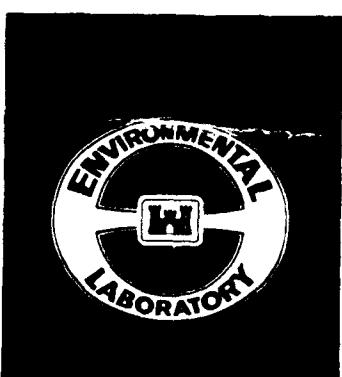
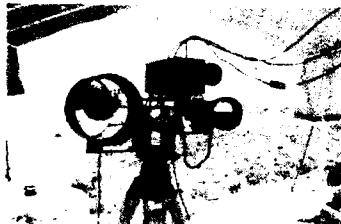


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TECHNICAL REPORT EL-91-15

US Army Corps  
of Engineers



ANALYSIS OF SCENE CONDITIONS  
AT THE LIGHT HELICOPTER  
TARGET ACQUISITION SUBSYSTEM  
DEMONSTRATION/VALIDATION  
YUMA PROVING GROUND, ARIZONA  
SEPTEMBER 1990

by

Bruce Sabol, Salvador Rivera, Jr.

Environmental Laboratory

DEPARTMENT OF THE ARMY

Waterways Experiment Station, Corps of Engineers  
3909 Halls Ferry Road, Vicksburg, Mississippi 39180-6199

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<p>In support of the Light Helicopter Target Acquisition Subsystem (TAS) Demonstration/Validation conducted at Yuma Proving Grounds, Arizona, during August and September 1991, the US Army Engineer Waterways Experiment Station (WES) collected field measurements and imagery to characterize site and scene conditions. Meteorological and terrain and target radiometric data were obtained and analyzed. Thermal and visible imagery were obtained within the field of regard during testing of the TAS. Images were processed to compute image metrics relevant to pre-detection image processing by the TAS. Image metrics included target-independent scene metrics, which measure the distribution of selected features over the entire image, and target-specific metrics, which measure specific target features and compute conspicuity of the target relative to the background. Analyses were performed to quantify temporal and spatial variations in metric values over the course of the test.</p>				
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## PREFACE

The study reported herein was conducted by the US Army Engineer Waterways Experiment Station (WES) to characterize site and scene conditions during the Light Helicopter Target Acquisition Subsystem Demonstration/Validation. It was funded by the US Army Aviation Systems Command (AVSCOM), St. Louis, MO. Mr. Mel Jackson was the AVSCOM Technical Monitor.

This study was conducted under the general supervision of Dr. John Harrison, Chief of the Environmental Laboratory (EL), WES, Dr. Victor E. LaGarde III, Chief of the Environmental Systems Division (ESD), EL, and Mr. Harold W. West, Chief of the Environmental Analysis Group (EAG), EL, and under the direct supervision of Mr. Bruce Sabol, WES project coordinator. Messrs. Bruce Sabol and Salvador Rivera, Jr., ESD, prepared this report. Field support was provided by Messrs. Humphrey Barlow, Tommy Berry, and Charles Hahn.

Commander and Director of WES during preparation of this report was COL Larry B. Fulton, EN. Technical Director was Dr. Robert W. Whalin.

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CONVERSION FACTORS, NON-SI TO SI (METRIC)  
UNITS OF MEASUREMENT

Non-SI units of measurement used in this report can be converted to SI  
(metric) units as follows:

<u>Multiply</u>	<u>By</u>	<u>To Obtain</u>
degrees (angle)	0.01745329	radians
inches	2.54	centimetres

ANALYSIS OF SCENE CONDITIONS AT THE LIGHT HELICOPTER TARGET  
ACQUISITION SUBSYSTEM DEMONSTRATION/VALIDATION  
YUMA PROVING GROUND, ARIZONA, SEPTEMBER 1990

PART I: INTRODUCTION

1. Almost all image-based automatic target recognition (ATR) systems use statistical pattern recognition techniques to detect targets within background. The ATR logic filters the entire image for target-like objects which it examines in greater detail to make first-level target-acquisition decisions. The detection level is the only stage which examines the entire image; all subsequent stages use only the segments of the image containing the feature of interest. The success of these stages of target acquisition (classification, recognition, and identification) is therefore contingent on successful detection. Background affects only the detection stage in this hierarchy.

2. Backgrounds in ATR imagery may comprise 95 to 100 percent of the image; there may be no a priori knowledge of targets in a field of view (FOV). Terrain and environmental conditions comprising backgrounds may consist of any conceivable set of conditions occurring within the operational envelope of the system. This translates to great variation in the possible distributions of image brightness values and of target-like image features within the background. Given the high degree of uncertainty associated with background image features and the predominance of background in target-containing imagery, understanding the general statistical characteristics of background imagery and the distribution of specific target-like features is an important part of understanding ATR performance.

3. Techniques for measuring the distribution of specific image features are referred to as image metrics. An image metric characterization of background scenes can be used to:

- a. Assess the complexity or difficulty a scene poses to an ATR system in detecting a target.
- b. Compare complexity levels available at different Continental United States (CONUS) test sites.
- c. Identify terrain and environmental factors which contribute to scene complexity.

- d. Compare scene complexity between potential conflict areas and CONUS test sites.

### Background

4. The US Army Engineer Waterways Experiment Station (WES) provided site and scene measurement support to the Multi-Sensor Fusion Demonstration Program sponsored by the US Army Laboratory Command between 1986 and 1988. During this effort an image metrics technique, based in part on ATR Working Group metrics, was developed to compare scenes from different test sites and to measure the separability of targets from background features. These techniques serve to quantify thermal and visible complexity levels in test scenes.

5. The WES was requested by the US Army Aviation Systems Command to provide scene measurement and analysis support for the Demonstration/Validation (DEM/VAL) of the Light Helicopter (LH) Target Acquisition Subsystem (TAS) conducted by the Super Team at Yuma Proving Ground (YPG), Arizona. The purpose of this support was to determine scene complexity\* conditions in the test area relative to thermal infrared and visible light target acquisition systems. This report describes the measurement and analysis conducted by WES during the period 3-13 September 1990.

### Objectives

6. The objectives of WES support to the LH DEM/VAL were:

- a. To make physical, radiometric, and meteorological measurements at the test site during the DEM/VAL which would document conditions relevant to the TAS sensors and aid in understanding the performance of the TAS.
- b. To obtain visible and thermal infrared imagery independently during the DEM/VAL and to compute image metrics which would be relevant to the lower level target acquisition decisions made by the TAS.
- c. To conduct a cursory analysis of the data collected to develop an understanding of factors causing temporal and spatial variations in image metrics values during the DEM/VAL.

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\* Scene complexity refers to the degree of challenge a specific target-containing scene poses to an ATR system. It has been defined as the amount of background texture that is similar to the target in terms of the image features used in the ATR system (Sabol and Hall 1990).

- d. To compare those image metrics values with those measured by WES at other ATR test sites.

#### Scope

7. The intent of this report is to describe the field measurements conducted by WES at the DEM/VAL between 3 and 13 September 1990. A cursory analysis is provided to help understand variations in image metrics values; it is not within the scope of this report to conduct an exhaustive analysis of metrics values. The primary intent is to describe measurements and data in sufficient detail to allow for an analysis to relate conditions and metrics to TAS performance.

## PART II: METHODOLOGY

8. From 3 to 13 September 1990, meteorological and radiometric measurements were made, and thermal infrared and visible images were collected. The following paragraphs describe procedures used in obtaining each type of data.

9. Meteorological measurements were collected by an automatic portable weather station (Figure 1) placed at the sensor location. Parameters measured include air temperature, downwelling radiation (0.4- to 1.0- $\mu\text{m}$  waveband), relative humidity, precipitation, wind speed, and wind direction. Measurements were made once a minute and were stored as 15-min averages.

10. Radiometric temperature data of a hulk tank and of background terrain features were gathered using a set of infrared staring radiometers which measure apparent temperature in the 8- to 14- $\mu\text{m}$  waveband. Radiometer stations were set in the training area east of Middle Mountain Road. Radiometers (Figure 2) were aimed at the turret and road wheels of hulk ETA-4 (two replicates each) in the line of sight to the sensors at site 9. Additional radiometers were placed to measure the temperature of bare ground (three replicates) and vegetation (four replicates). Instantaneous measurements were made at 1-min intervals and were output as 15-min averages; an emissivity of 0.99 was assumed for temperature estimation.

11. Thermal and visible imagery were collected simultaneously with TAS testing from 6 to 12 September. One hundred and twenty-two encounters with operating targets were recorded, along with numerous hulks, during this time. These encounters include both day and night conditions, training and testing configurations,\* and comprise 206 thermal images and 52 visible images. Additionally, background-only imagery of the entire field of regard used for training and testing was taken at 2-hr intervals over a 24-hr period on 13 September. The WES sensor site was positioned at site 9, located 20 m to the west southwest and 0.17 m below the elevation of the TAS sensor. The WES sensor suite consisted of an 8- to 14- $\mu\text{m}$  thermal imager (Agema Thermovision AGA model 782) and a low-light camera (Photometrics 200 charge-coupled device (CCD) camera) mounted on and boresighted with theodolite (Figure 3). The

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\* Configurations are defined as specific sets of target types positioned at fixed locations in the FOV in fixed orientations relative to the TAS sensor.

thermal imager uses a 3.5-deg\* FOV lens producing a 140-pixel by 140-pixel image of square pixels. Radiometric temperatures are estimated in this DC-restored system using recent calibrations. During operations, these temperature estimates were frequently checked by imaging two passive blackbodies instrumented with thermistors. All digital thermal images were obtained by frame-averaging 10 sequential frames. The visible light camera uses a CCD detector (576 horizontal pixels by 384 vertical pixels) to measure a 3-deg horizontal by 2-deg vertical FOV. The CCD detector responds to energy in the 0.4- to 0.8- $\mu$ m waveband. The output is recorded in 14-bit resolution. Though this system is not radiometrically calibrated, all exposure and filter settings are held constant for DEM/VAL imagery so that a relative comparison of brightness values can be made.

12. The WES imaging procedure during use of the TAS consisted of recording an image every 2.5 deg in azimuth across a wide field of regard containing all targets in the current configuration. A fixed span in azimuth and a fixed elevation were used for each target configuration. Azimuth spans and elevation angles for each configuration are listed below.

Azimuth*	Elevation**	Configuration
162 - 184.5 by 2.5	91.33	Training configurations 1 and 2
162 - 184.5 by 2.5	90.75	Training configuration 3
235.25	92.33	Test configurations 7 and 8
185 - 207.5 by 2.5	91.25	All other test configurations

\* Measured in degrees clockwise from Universal Transverse Mercator (UTM) north, approximately 1.44 deg east of true north.

\*\* Measured as degrees from vertical.

Identical angles for many different configurations were used to allow direct comparison of background scenes. The angular position of each target was determined by direct measurement by WES or YPG surveyors. Operational hours for the TAS were from 2 a.m. to noon daily.

13. To obtain imagery that would determine temporal variations in image metrics, systematic diurnal imaging of "standard views" was performed at even-numbered hours from 2 a.m. to midnight on 13 September. Visible imagery was collected from 8 a.m. to 6 p.m. Fourteen images, which encompassed all fields

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\* A table of factors for converting non-SI units of measurement to SI (metric) units is presented on page 3.

of regard for training and testing configurations, were collected each time. These standard views are listed in Table 1.

### PART III: DESCRIPTION OF SITE AND CONDITIONS

14. The LH DEM/VAL was conducted at site 9 on Cibola Range, YPG, Arizona (Figure 4). The site is located atop a hill approximately 40 m above the adjoining terrain. The terrain is principally a vast alluvial fan typified by an extensive wash network separated by large patches of desert pavement. The site is bounded by the Middle Mountains to the east and by the Chocolate Mountains to the west and north. The total field of regard (FOR) for the sensors tested extended from SSE to SW. A photographic panorama of this FOR is illustrated in Figures 5, 6, and 7. These photographs were taken from the WES sensor location; azimuth and elevation angles (measured relative to UTM) marked on these photomosaics are relative to the WES sensor location.

15. The FOR was divided into "training" and "testing" areas. The training area (Figure 5A), to the east of Middle Mountain Road (located along azimuth 180 deg), is backdropped by the Middle Mountains at approximately the 3.5-km range. Eight hulk tanks were placed at selected locations within the training area for the duration of the DEM/VAL. The testing area (Figures 6 and 7), to the west of Middle Mountain Road, provided unobstructed lines of sight, over flat terrain, in excess of 15 km.

16. Meteorological conditions, measured from the WES portable weather station at site 9 from 4 to 13 September, are summarized in Figure 8. A complete listing is contained in Appendix A. Average air temperature during this period was 33.6° C, ranging from a minimum of 23.6° C to a maximum of 44.6° C. High humidity, cloud cover, depressed air temperatures, and measurable precipitation were observed from 3 to 5 September. After this time, skies cleared and temperatures increased. Averaged conditions for a "typical" day, created by averaging weather variables by time of day, are illustrated in Figure 9.

17. An average diurnal summary of radiometric temperature data for the instrumented hulk and the selected terrain features is graphically depicted in Figure 10. A complete listing of radiometric data is contained in Appendix A. Bare ground heated up the quickest after sunrise, while vegetation and the hulk exhibited a slower rise. Typically, bare-ground temperature peaked about 2 p.m., followed by a rapid cooling. Other features peaked 1 to 2 hr later at a lower temperature. Several contrast reversals occurred. Before dawn the hulk was warmer than the bare ground and vegetation. Within 90 min after sunrise, the bare ground became warmer than the hulk and the vegetation. The second contrast reversal occurred about 6 p.m., when the bare soil dropped

below the temperature of the hulk and the vegetation. The hulk remained warmer than either bare ground or vegetation through the rest of the night.

PART IV: DESCRIPTION AND INTERPRETATION OF IMAGE METRICS

18. Scene analysis was conducted using an image metrics approach (Sabol and Hall 1990). Image metrics are measures of the value or distribution of selected features within the image. The premise behind this approach is that metrics, which measure features relevant to those used by the ATR system to identify regions of interest (precursor to detection), can serve as an indicator of difficulty or scene complexity. For example, if a sensor system uses standard deviation of image brightness to set thresholds, very high background standard deviations may result in missed target detections. A second example would be to consider a sensor system that looks for bright target-sized blobs; this would perform poorly when such features were abundant in the background scene.

19. Image processing procedures used by the TAS to identify regions of interest in the automatic mode were determined.\* A set of image metrics was subsequently selected. These metrics consisted of (a) global target-independent metrics for measuring characteristics of the entire image, including any targets in the image (these are referred to as "scene metrics"), and (b) target-specific metrics for measuring feature values of known target locations within the image and for comparing these with the rest of the image (these are referred to as "target metrics"). Table 2 lists and describes these metrics and provides information on how to interpret their values. In the WES analysis, greatest emphasis was placed on scene metrics that measure distribution of target-sized contrasting background objects ( $T\_CNT_{nn}$ ,  $V\_CNT_{nn}$ ; described in Table 2), and on target metrics that measure target contrast ( $T\_CONTR$ ,  $DARK\_CON$ ) and conspicuity of target contrast ( $TCON\_GTP$ ,  $T\_T1R2$ ,  $VCON\_GTP$ ,  $V\_T1R2$ ). Other metrics are included to provide general information about background and target feature values, and continuity with other WES-archived metric data sets.

20. Several metrics require knowledge of the range to all parts of the image and to specific targets. Ranges to specific targets, required for computing target metrics, were obtained from measurements made by the YPG survey team. Passive range estimation was used for sizing the target-sized contrast windows and for limiting the portion of the image processed for metrics

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\* Personal Communication, 30 May 1990, Charles Channel, Electrical Engineer, Hughes Aircraft Company, El Segundo, CA.

computations. Only the portion of the measured image between 0.7 km and 6.5 km was used for analysis; this served to eliminate sky and foreground from metrics computations. A passive ranging technique created a range image for each FOV to satisfy this requirement. This was accomplished by using a ray-tracing algorithm over a flat-facet terrain model based on Defense Mapping Agency Level I digital topographic elevation data for the site 9 area at YPG, Arizona. Accuracy tests of this technique using 23 surveyed points indicated that 80 percent of these points were within 10 percent of being correct, and the worst case error was an overestimation of 19 percent. The accuracy of this passive ranging technique was judged adequate for present purposes.

## PART V: DESCRIPTION OF DATABASE

21. An entire listing of data described in this report is presented in Appendixes A through E. These data are also contained on IBM-PC compatible 5-1/4-in. high density floppy diskettes in dBase III format files. Meteorological and radiometric data are contained in Appendix A. Scene metrics for all imagery collected are contained in Appendixes B (thermal) and C (visible). Target metrics for all operating and hulk targets encountered are contained in Appendixes D (thermal) and E (visible). Variable names used in the dBase files and in this document are listed in the respective appendixes.

22. There was no formal agreement on test naming convention between WES and the TAS test director; however, there are numerous variables in the database which will enable proper merging of WES data and TAS performance data. Each observation in all three files is associated with a time/date. All image data and associated metrics have a purpose variable that is set to either baseline, testing, training, or demonstration. "Baseline" imagery was acquired on 13 September on even-numbered hours and is unrelated to any TAS operations occurring on that date. "Testing" imagery was acquired in association with TAS record trials in the testing area to the west of Middle Mountain Road. "Training" imagery was acquired in association with TAS operations in the training area located to the east of Middle Mountain Road. "Demonstration" imagery was taken in the testing area in association with the TAS demonstration scenario. All imagery acquired for testing and training purposes was associated with a configuration number assigned by the TAS test director. The horizontal pointing angle for each individual image is recorded in AZIMUTH (scene metrics file) or IMG\_AZTH (target metrics file); it is measured in degrees counterclockwise from UTM north. The vertical pointing angle, recorded as ELEV (scene metrics file) or IMG\_ELEV (target metrics file), is measured in degrees from vertical.

23. Individual targets in the target metrics file (Appendixes D and E) are identified by TYPE (tank, truck, APC, or hulk), ID (integer number assigned by YPG surveyors), ORIENTATION (FF=front, RF=right front, RR=right, RB=right rear, BB=rear, LB=left rear, LL=left, LF=left front), RANGE (distance in meters from target to WES sensor location), TGT\_AZTH (azimuth to target in degrees counterclockwise from UTM north), and TGT\_ELEV (vertical angle to target in degrees off vertical).

## PART VI: ANALYSIS

24. An analysis is presented to: (a) summarize the range of scene and target metrics values, (b) examine how these values change as a function of time of day and of specific FOV within the field of regard, and (c) examine how metrics values from the DEM/VAL compare with the same metrics obtained at other ATR test sites. Metrics for imagery taken simultaneously with TAS training and testing were most relevant to understanding TAS performance. This imagery, however, was not specifically intended to resolve how time of day or location within the FOR affected metrics values. To address these questions, metrics from baseline imagery were used. Each of the following sections state the subset of data used to perform the analysis.

25. Summaries of scene and target metrics values are presented in Tables 3 to 14 for imagery taken during TAS training and testing periods. These tabular summaries are divided by waveband (thermal or visible) and by metric type (scene or target). Thermal image metrics are further subdivided by time of day (before or after sunrise) and by purpose (training versus testing). Summary statistics include mean, standard deviation, minimum, 10th percentile (P10), median, 90th percentile (P90), maximum, and 90th minus 10th percentile (referred to as 80-percent range).

26. Thermal scene metrics are summarized in Tables 3 through 7. The spread of values indicates a diversity of thermal scene conditions from very bland to highly textured. The range of conditions, probably best represented by the 80 percent range statistic, shows that daytime imagery tends to be more textured and variable than predawn imagery. Comparison of thermal scene metrics between training and testing areas shows little difference.

27. Thermal target metrics are summarized in Tables 8 through 12. The overall mean target contrast ( $T_{CONTR}$ ) was  $0.4^{\circ} C$ , but this varied greatly from  $-1.2^{\circ} C$  to  $+1.7^{\circ} C$ . Conspicuity of targets, estimated by the various measures ( $TCON_GTP$ ,  $T_TIR2$ ,  $THOT_GTP$ ), also varied greatly. Target thermal contrast was higher before dawn, as was the global conspicuity of the contrast ( $TCON_GTP$ ); local conspicuity ( $T_TIR2$ ), however, was higher during the daytime. This apparent contradiction is explainable by the greater target-sized local contrast ( $T_CNTnn$ , see Table 2) of daytime imagery. Targets in the daytime are locally more conspicuous, but they are competing with more target-sized hot blob-shaped features in the background. Differences in thermal target metrics between training and testing were considered negligible.

28. Visible scene and target metrics are summarized in Tables 13 and 14, respectively. Visible imagery represents daytime conditions only and was acquired only in the testing area because of camera malfunctioning during training configurations. Brightness values cover the full 14-bit dynamic range with image means ranging between 45 and 2906. On the average, targets were darker than their immediate background by an average of 117 digital brightness units but ranged from 190 units brighter to 369 units darker. The global conspicuity of the local target contrast averaged only 0.67 - not very conspicuous. The darkest pixel on target proved to be a most conspicuous feature with its global conspicuity (VDRK\_GTP) averaging 0.95. Among the two wavebands, target features listed in order of decreasing conspicuity are visible darkest pixel on target, thermal hottest pixel on target, local contrast in the thermal band, and local contrast in the visible band.

29. Baseline imagery was used to examine time of day and spatial effects on scene and target metrics. Temporal effects for the scene metrics in the thermal band are displayed in Figure 11. Each data point in these figures represents the average metrics value of the 14 baseline images taken at each sampling time. Image mean temperature (TMP\_MEAN) increases from a dawn minimum to a peak in early afternoon, after which temperature declines into the evening. Thermal variability metrics, thermal standard deviation (TMP\_STDV), target-sized local contrast (T\_CNT95), and the Georgia Tech Clutter metric (T\_CLUTTR), exhibit a daytime increase similar to the typical solar-loading curve (Figure 9).

30. Targets imaged in the baseline imagery include only the hulks parked in the training area. These were the only targets in a fixed position for the duration of the baseline imaging. Target temperatures (T\_MEAN, T\_MAX in Figure 12a) exhibit an increase during the daytime period. Local contrast (T\_CONTR in Figure 12b) of these targets showed peak positive contrasts, around +0.65° C, 2 hr before sunrise and 1 hr after sunset. Between these times, contrast decreased to a minimum value of -0.5° C at noon. Target contrast "crossovers" occurred at approximately 0745 hours (from positive to negative) and 1530 hours (from negative to positive). Global conspicuity of the local contrast is indicated TCON\_GTP in Figure 12c; targets were highly conspicuous during the nighttime period but became very inconspicuous during the day. Local conspicuity of the targets, indicated by T\_TIR2 in Figure 12d, was low during the day but increased rapidly to a peak value around sunset.

31. The hulk targets, used in analysis of baseline target metrics, have no internal heat source, so they have lower signature levels than comparable operating targets used during testing. To evaluate the validity of the temporal analysis described above, similar temporal analysis is performed using operating targets and hulks independently. Results are illustrated in Figure 13. Operating target means are more variable (higher standard error about the mean) than the hulks because they were taken over multiple days; however, it is apparent that operating targets do not lose their conspicuity during daylight hours the way the hulks do.

32. Temporal effects on visible metrics from the baseline imaging are displayed in Figures 14 and 15. Visible brightness and texture show a midday peak. Continuity of target metric data suffers from missing observations at the 2 p.m. measurement time. However, it is apparent that targets are very conspicuous using dark contrast and darkest pixel-on-target features during most of the day, with a peak around midday. Unlike the thermal data, there is no reason to expect differences between hulks and operating targets in the visible band.

33. Time of day exerts a pronounced effect on thermal and visible metrics. Analysis to detect spatial effects, i.e., effect of different FOVs on metric values, must therefore avoid any confounding with temporal effects. Spatial effects were analyzed by averaging scene metrics obtained from baseline imaging; all times of day were therefore given equal weighing. Mean values of selected scene metrics, bounded by a single standard error, are plotted by azimuth angle (Figures 16 and 17). Thermal scene metrics values (Figure 16) were generally similar between training and testing areas with the exception of the farthest west testing FOV (WES view 14, used for testing configurations 7 and 8). This particular view tended to be warmer and more thermally textured than all others; it also had the shortest range of any FOV used for testing or training. The shortness of range would allow the sensors to respond to terrain features in greater detail and would minimize atmospheric attenuation effects. Excluding view 14, training FOVs tended to have slightly higher spatial variability of temperatures ( $T_{CLUTTR}$ ,  $T_{CNT95}$ ) and more evenly distributed temperature histograms ( $TMP\_STDV$ ,  $T\_ENTRO$ ).

34. Spatial analysis of visible scene metrics (Figure 17) shows some differences between various groupings of views. Excluding view 14, testing views have a higher average brightness than training views. Average values for metrics indicative of spatial variation ( $V_{CNT95}$ ) and brightness

distribution (V\_STD, V\_ENTRO) are generally similar between testing and training views; however, the spread of these values (width of standard error bounds) is considerably higher for testing views.

35. A comparison is made between DEM/VAL thermal and visible scene metrics and similar data collected from other ATR test sites (Figures 18 to 20). Scatter plots of 24-hr baseline thermal scene metrics (TMP\_STDV versus TMP\_MEAN, and TMP\_STDV versus T\_CNT95) are displayed (Figure 18) for the DEM/VAL (YPG), Fort Hunter Liggett, California (March 1987, January 1988); Orlando, FL (July 1987); and Cibola site 9, Yuma Proving Grounds (July 1987). DEM/VAL thermal scene metrics cluster with those from the previous measurements at site 9. Both YPG excursions indicate warmer scenes than those encountered during the Fort Hunter Liggett or Orlando excursions. Visible scene metrics data, collected during baseline imaging, are available for Fort Hunter Liggett and are compared with similar DEM/VAL data (Figure 17). The Fort Hunter Liggett site reveals a broader range of brightness values (V\_MEAN) and image variability (V\_STD and V\_CNT95). Similar thermal and visible scene metrics data are displayed (Figure 18) for imagery collected during system testing operations (taken under less controlled conditions than baseline imagery). These data illustrate similar trends.

## PART VII: SUMMARY

36. In support of the LH TAS DEM/VAL conducted at Yuma Proving Ground, Arizona, during August and September 1990, WES collected field measurements and imagery from 3 to 13 September. The purpose of the data collection was: (a) to document physical, meteorological, and radiometric conditions relevant to the TAS, (b) to analyze the imagery using image metrics expected to be relevant to TAS pre-detection image processing, and (c) to use these metrics to evaluate scene complexity levels within the DEM/VAL and relative to other ATR test sites.

37. Automated stations were installed to record meteorological conditions and radiometric temperatures of a hulk tank and predominant terrain features. Thermal and visible imagery were obtained using commercially available digital imaging equipment as similar as possible to the TAS sensors. Two imagery sampling designs were followed. In the first, imagery of FOV containing test targets were collected simultaneously with TAS operations. In the second, the entire FOR was imaged every 2 hr over a 24-hr period. All images were processed to compute image metrics relevant to TAS pre-detection image processing.

38. Weather conditions during WES support were typical of the late summer "monsoon" season at Yuma; conditions ranged from hot and humid with afternoon squalls to very hot and dry under totally sunny conditions. Each predominant terrain feature exhibited a different characteristic temperature cycle over the diurnal period. Bare ground areas heated up and cooled off most rapidly; vegetation exhibited slower heating and cooling and more closely followed the air temperature.

39. Image brightness and spatial variability measures varied greatly in both wavebands for the imagery collected. Time of day exerted the most pronounced effect on scene and target metrics in both wavebands. Thermal scenes were hotter and more textured during the day; targets were warmer than adjoining local background and exhibited more conspicuity during the nighttime hours. Passively heated targets (hulks) exhibited a relatively smooth sinusoidal cycle of thermal contrast and contrast conspicuity over the diurnal period. Hulks were relatively warm before sunrise; after sunrise, the temperature of the bare ground areas surpassed that of the hulks, and they "disappeared" into the background. By midmorning the hulks were relatively cold and conspicuous as cold objects. By late afternoon temperature in the bare ground

areas fell below the temperature of the hulks, which again became conspicuously warm. Operating targets did not exhibit this large decrease in contrast during the daytime hours. Visible scene statistics followed solar illumination levels directly and exhibited greatest brightness and spatial variability at midday. Targets exhibited the greatest dark contrast and conspicuity during midday.

40. Spatial effects (variation in metric values as a function of imaging different FOV within the FOR) were also observed although they were not as pronounced as time of day (temporal) effects. The farthest west scene in the FOR, used for test configurations 7 and 8 (WES view 14), was least like all other portions of the FOR. This view tended to be warmer and more thermally textured and had a greater range of brightness and visible texture. The short-range effects were probably the primary reason for the difference. Excluding this view, there were some differences between testing and training areas. In the thermal band, the training area was more textured and variable than in the testing area. In the visible band, the testing area was brighter than the training area and had a greater range of texture and variability within the scene.

41. Relative to metrics data from other ATR test sites presently in the WES database, the DEM/VAL site exhibited higher temperature scenes than either the Orlando, FL, or Fort Hunter Liggett, California, sites and more thermal variability within scene than the Orlando site. In the visible band, the Fort Hunter Liggett site was brighter and exhibited greater variability than the DEM/VAL site; visible data were not available for Orlando.

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**Table 1**  
**Standard Imaging Views**

<u>View</u>	<u>Azimuth deg</u>	<u>Elevation deg</u>	<u>Configurations Covered</u>
1	157	91.33	Training
2	159.5	91.33	Training
3	162	91.33	Training
4	164.5	91.33	Training
5	167	91.33	Training
6	169.5	91.33	Training
7	172	91.33	Training
8	190	91.33	All testing configura- tions except 7 and 8
9	192.5	91.33	All testing configura- tions except 7 and 8
10	195	91.33	All testing configura- tions except 7 and 8
11	197.5	91.33	All testing configura- tions except 7 and 8
12	200	91.33	All testing configura- tions except 7 and 8
13	202.5	91.33	All testing configura- tions except 7 and 8
14	235.33	92.33	Test configurations 7 and 8

Table 2  
Description of Scene and Target Metrics Used

Metric Type	Metric Name	Description	Wave-band	Name in Database	Units	Ref.
scene	image mean brightness	average image brightness within range bounds <sup>1</sup>	thermal	TMP_MEAN	°C	
			visible	V_MEAN	BV <sup>2</sup>	
"	image minimum brightness	minimum brightness value	thermal	TMP_MIN	°C	
			visible	V_MIN	BV	
"	5 percentile brightness	5 percentile brightness value	thermal	TMP_05	°C	
			visible	V_PER05	BV	
"	image median brightness	median brightness value	thermal	TMP_MED	°C	
			visible	V_MEDIAN	BV	
"	95 percentile brightness	95 percentile brightness value	thermal	TMP_95	°C	
			visible	V_PER95	BV	
"	image maximum brightness	maximum brightness value	thermal	TMP_MAX	°C	
			visible	V_MAX	BV	
"	image standard deviation	standard deviation; parametric measure of spread of brightness values in data space	thermal	TMP_STDV	°C	
			visible	V_STD	BV	
"	90 percentile range	95 percentile value minus 5 percentile value; nonparametric measure of spread of brightness values in data space	thermal	T_RNG90	°C	
			visible	V_RNG90	BV	
"	skewness	measure of asymmetry of brightness histogram;  interpretation: skew=0 indicates symmetry, skew<0 indicates negative skew, skew>0 indicates positive skew.	thermal	T_SKEW	DL <sup>3</sup>	(Press et al. 1986)
			visible	V_SKEW		
"	entropy	measure of evenness of brightness histogram;  interpretation: relatively high values indicate even distributions	thermal	T_ENTRO	DL	(Carlson and Radford 1986)
				V_ENTRO		

\* See References at the end of the main text.  
(Continued)

Table 2 (Continued)

Metric Type	Metric Name	Description	Wave-band	Name in Database	Units	Ref.
scene	Georgia Tech clutter metric	average standard deviation of boxes twice the size of a target (8m vert X 16m horiz) at middle range.  <u>interpretation:</u> high values indicate local variation in image	thermal	T_CLUTTR	°C	(Hetzler et al. 1987)
"	Reynolds clutter metric	portion of standard deviation attributable to local variation  <u>interpretation:</u> high values indicate predominance of local thermal variation	thermal	T_REYNO	DL	(Reynolds 1990)
"	target-sized local contrast	measures the <u>nn</u> percentile value of local contrast (bright contrast for thermal, dark contrast for visible) of target sized objects in background	thermal	T_CNT <u>nn</u>	°C	(Sabol and Hall 1990)
			visible	V_CNT <u>nn</u>	BV	
target	target mean	average brightness value of target-sized box, 8m(H)x4m(V), centered about a target	thermal	T_MEAN	°C	
			visible	V_MEAN	BV	
"	target maximum	brightest pixel in target sized box centered about target	thermal	T_MAX	°C	
			visible	V_MAX	BV	
"	target minimum	darkest pixel in target sized box centered about target	thermal	T_MIN	°C	
			visible	V_MIN	BV	
"	target standard deviation	standard deviation of brightness values in target-sized box centered about target	thermal	T_STD	°C	
			visible	V_STD	BV	

(Continued)

(Sheet 2 of 3)

Table 2 (Concluded)

Metric Type	Metric Name	Description	Wave-band	Name in Database	Units	Ref.
target	pixels on target	number of pixels in target-sized box centered about target	thermal	T_POT	# of pixels	(Beard, Clark, and Velton 1985)
			visible	V_POT		
"	local target contrast	average of target-sized box minus average of local adjoining background	thermal	T_CONTR	°C	
"	local target dark contrast	average of local adjoining background minus average of target sized box	visible	DARK_CON	BV	
"	target interference ratio squared (TIR <sup>2</sup> )	measure of local target conspicuity; equals square of local target contrast divided by square of local background standard deviation	thermal	T_TIR2	DL	(Beard, Clark, and Velton 1985)
			visible	V_TIR2		
"	global target prominence (GTP)	non-parametric measure of a specific target feature value relative to the entire background; <u>interpretation:</u> indicates portion of image for which target feature value is greater than the background.			DL (0..1)	(Beard, Clark, and Velton 1985)
"	GTP of local target contrast		thermal	TCON_GTP		
"	GTP of target maximum		thermal	THOT_GTP		
"	GTP of darkest pixel on target		visible	VDRK_GTP		
"	GTP of local target dark contrast		visible	VCON_GTP		

1. Only the portion of the image between 0.7km and 6.5 km was processed for all metrics.
2. Fourteen-bit digital Brightness Value produced by visible light CCD camera set on standard exposure setting.
3. Dimensionless number.

Table 3  
Thermal Scene Metrics Summary for Testing and Training Imagery

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
TMP_MEAN	196	26.449	50.433	33.081	5.408	28.165	41.563	13.400
TMP_STDV	196	0.273	4.174	1.184	0.535	0.478	1.845	1.367
TMP_MIN	196	24.678	49.132	30.371	5.482	25.766	38.746	12.979
TMP_05	196	25.832	50.015	31.533	5.515	26.667	40.088	13.421
TMP_95	196	27.020	54.001	35.118	5.535	30.139	44.279	14.139
TMP_MAX	196	28.180	55.891	36.307	5.829	30.584	46.237	15.653
T_RNG90	196	0.717	12.704	3.585	1.611	1.355	5.392	4.036
T_SKEW	196	-2.003	2.190	0.255	0.650	-0.561	0.953	1.514
T_ENTRO	196	1.572	4.151	2.903	0.479	2.130	3.442	1.312
T_CLUTTR	196	0.199	3.244	0.839	0.385	0.359	1.246	0.887
T_CNT75	196	0.088	0.739	0.271	0.104	0.170	0.443	0.273
T_CNT95	196	0.235	2.414	0.693	0.345	0.354	1.246	0.892

Table 4  
Thermal Scene Metrics Summary Before Sunrise  
(Night) for Testing and Training Imagery

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
TMP_MEAN	108	26.449	32.045	29.800	1.170	28.074	31.116	3.042
TMP_STDV	108	0.382	2.172	1.358	0.352	0.936	1.828	0.892
TMP_MIN	108	24.678	29.089	26.855	1.066	25.137	28.231	3.093
TMP_05	108	25.832	30.099	27.966	1.022	26.341	29.248	2.907
TMP_95	108	27.020	34.839	32.180	1.471	30.139	33.980	3.841
TMP_MAX	108	28.395	38.430	33.111	1.873	30.509	35.248	4.739
T_RNG90	108	1.143	6.478	4.214	0.980	3.078	5.478	2.399
T_SKEW	108	-0.318	1.092	0.419	0.333	-0.023	0.933	0.956
T_ENTRO	108	2.055	3.608	3.108	0.260	2.756	3.442	0.686
T_CLUTTR	108	0.294	1.447	0.877	0.177	0.651	1.096	0.445
T_CNT75	108	0.088	0.488	0.271	0.071	0.229	0.363	0.134
T_CNT95	108	0.264	0.861	0.625	0.129	0.465	0.800	0.335

Table 5  
Thermal Scene Metrics Summary After Sunrise  
(Day) for Testing and Training Imagery

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
TMP_MEAN	88	26.992	50.433	37.108	5.839	28.883	43.411	14.528
TMP_STDV	88	0.273	4.174	0.970	0.637	0.359	1.884	1.525
TMP_MIN	88	25.766	49.132	34.686	5.636	27.810	40.384	12.575
TMP_05	88	26.313	50.015	35.911	5.632	28.347	41.297	12.950
TMP_95	88	27.669	54.001	38.724	6.493	29.417	46.284	16.868
TMP_MAX	88	28.180	55.891	40.229	6.603	30.584	49.128	18.544
T_RNG90	88	0.717	12.704	2.813	1.882	1.074	5.392	4.318
T_SKEW	88	-2.003	2.190	0.054	0.858	-1.162	1.082	2.244
T_ENTRO	88	1.572	4.151	2.652	0.562	1.902	3.466	1.564
T_CLUTTR	88	0.199	3.244	0.792	0.539	0.294	1.545	1.251
T_CNT75	88	0.113	0.739	0.270	0.135	0.125	0.455	0.330
T_CNT95	88	0.235	2.414	0.776	0.483	0.299	1.472	1.173

Table 6  
Thermal Scene Metrics Summarized for Training Imagery

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
TMP_MEAN	70	26.449	40.925	32.543	3.813	28.535	40.655	12.120
TMP_STDV	70	0.353	2.098	1.140	0.553	0.474	1.940	1.465
TMP_MIN	70	25.218	37.747	29.937	3.459	27.080	36.917	9.837
TMP_05	70	25.876	38.698	31.029	3.673	27.746	38.474	10.728
TMP_95	70	27.020	45.332	34.439	4.483	29.310	43.966	14.656
TMP_MAX	70	28.180	46.284	36.019	4.811	29.789	46.071	16.282
T_RNG90	70	0.972	6.683	3.410	1.655	1.375	5.579	4.204
T_SKEW	70	-0.578	1.791	0.257	0.499	-0.401	0.968	1.368
T_ENTRO	70	1.854	3.574	2.890	0.513	2.167	3.490	1.323
T_CLUTTR	70	0.239	2.098	0.794	0.406	0.359	1.482	1.123
T_CNT75	70	0.088	0.541	0.253	0.089	0.170	0.379	0.209
T_CNT95	70	0.235	1.777	0.691	0.324	0.341	1.240	0.899

**Table 7**  
**Thermal Scene Metrics Summarized for Testing Imagery**

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
TMP_MEAN	126	27.517	50.433	33.380	6.111	28.165	42.732	14.567
TMP_STDV	126	0.273	4.174	1.208	0.526	0.508	1.806	1.298
TMP_MIN	126	24.678	49.132	30.612	6.333	25.357	40.116	14.759
TMP_05	126	25.832	50.015	31.813	6.307	26.542	40.974	14.433
TMP_95	126	29.555	54.001	35.495	6.025	30.457	45.714	15.258
TMP_MAX	126	29.926	55.891	36.467	6.337	30.932	47.513	16.582
T_RNG90	126	0.717	12.704	3.682	1.585	1.336	5.212	3.876
T_SKEW	126	-2.003	2.190	0.253	0.723	-0.791	0.953	1.744
T_ENTRO	126	1.572	4.151	2.911	0.461	2.112	3.348	1.236
T_CLUTTR	126	0.199	3.244	0.864	0.372	0.395	1.246	0.851
T_CNT75	126	0.113	0.739	0.280	0.111	0.170	0.455	0.285
T_CNT95	126	0.275	2.414	0.694	0.357	0.354	1.246	0.892

**Table 8**  
**Thermal Target Metrics Summary for Testing and Training Imagery**

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
T_MEAN	175	26.258	50.085	33.073	5.197	28.429	42.002	13.573
T_STD	175	0.000	0.316	0.060	0.056	0.000	0.121	0.121
T_MIN	175	25.739	49.900	31.792	5.149	27.248	40.335	13.087
T_MAX	175	27.155	50.894	34.949	5.267	29.199	43.411	14.212
T_CONTR	175	-1.187	1.655	0.399	0.500	-0.179	1.015	1.194
TCON_GTP	175	0.016	1.000	0.766	0.290	0.260	0.997	0.736
T_TIR2	175	0.000	24.140	1.490	2.814	0.029	3.605	3.576
THOT_GTP	175	0.222	1.000	0.907	0.135	0.770	1.000	0.230
T_POT	175	10.000	171.000	53.125	44.202	21.000	105.000	84.000

Table 9  
Thermal Target Metrics Summary Before Sunrise  
(Night) for Testing and Training Imagery

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
T_MEAN	102	26.258	33.293	30.358	1.341	28.558	32.150	3.590
T_STD	102	0.000	0.235	0.065	0.046	0.000	0.122	0.122
T_MIN	102	25.739	32.671	28.961	1.409	27.248	31.207	3.959
T_MAX	102	27.155	38.430	32.586	2.141	29.231	34.905	5.674
T_CONTR	102	-1.086	1.652	0.427	0.441	-0.122	0.853	0.975
TCON_GTP	102	0.016	1.000	0.807	0.260	0.364	0.992	0.628
T_TIR2	102	0.001	12.177	1.028	1.670	0.054	2.448	2.394
THOT_GTP	102	0.348	1.000	0.918	0.107	0.788	1.000	0.212
T_POT	102	10.000	171.000	61.676	51.554	10.000	171.000	161.000

Table 10  
Thermal Target Metrics Summary After Sunrise  
(Day) for Testing and Training Imagery

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
T_MEAN	73	26.802	50.085	36.866	6.141	28.025	44.375	16.350
T_STD	73	0.000	0.319	0.052	0.068	0.000	0.115	0.115
T_MIN	73	26.149	49.900	35.748	5.838	27.432	42.177	14.745
T_MAX	73	27.669	50.894	38.250	6.454	28.744	46.284	17.541
T_CONTR	73	-1.187	1.655	0.361	0.572	-0.227	1.133	1.360
TCON_GTP	73	0.056	1.000	0.709	0.320	0.188	1.000	0.811
T_TIR2	73	0.000	24.140	2.134	3.808	0.021	5.895	5.874
THOT_GTP	73	0.222	1.000	0.892	0.165	0.714	1.000	0.286
T_POT	73	10.000	136.000	41.178	27.295	21.000	55.000	34.000

Table 11  
Thermal Target Metrics Summarized for Training Imagery

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
T_MEAN	81	26.258	43.217	32.995	4.222	28.025	41.318	13.293
T_STD	81	0.000	0.122	0.046	0.041	0.000	0.114	0.114
T_MIN	81	25.739	41.122	31.846	3.924	27.432	39.047	11.615
T_MAX	81	27.155	45.571	34.583	4.416	28.744	42.732	13.989
T_CONTR	81	-1.187	1.652	0.393	0.521	-0.217	1.041	1.258
TCON_GTP	81	0.056	1.000	0.758	0.294	0.294	0.997	0.703
T_TIR2	81	0.001	24.140	1.998	3.706	0.037	5.353	5.316
THOT_GTP	81	0.357	1.000	0.913	0.126	0.716	1.000	0.284
T_POT	81	10.000	105.000	44.407	23.854	10.000	55.000	45.000

Table 12  
Thermal Target Metrics Summarized for Testing Imagery

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
T_MEAN	94	27.301	50.085	33.140	5.932	28.558	43.604	15.046
T_STD	94	0.000	0.316	0.071	0.065	0.000	0.121	0.121
T_MIN	94	26.487	49.900	31.746	6.030	27.248	41.661	14.413
T_MAX	94	28.379	50.894	35.264	5.908	29.231	44.854	15.624
T_CONTR	94	-1.086	1.655	0.405	0.483	-0.174	0.939	1.113
TCON_GTP	94	0.016	0.999	0.774	0.287	0.242	0.997	0.755
T_TIR2	94	0.000	8.725	1.051	1.604	0.020	2.869	2.849
THOT_GTP	94	0.222	1.000	0.902	0.142	0.772	1.000	0.228
T_POT	94	10.000	171.000	60.638	55.161	21.000	171.000	150.000

Table 13 .  
Visible Scene Metrics Summary for Testing Imagery

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
V_MEAN	51	44.800	2951.400	2182.030	935.435	232.100	2789.100	2557.000
V_STD	51	10.600	692.280	370.099	166.330	58.700	543.250	484.550
V_CV	51	0.123	0.314	0.179	0.045	0.138	0.250	0.112
V_PER05	51	31.000	2241.000	1539.900	689.404	143.000	2038.000	1895.000
V_PER95	51	64.000	4064.000	2743.750	1165.290	337.000	3489.000	3152.000
V_RNG90	51	33.000	2129.000	1203.840	538.423	194.000	1709.000	1515.000
V_SKEW	51	-0.589	1.568	-0.084	0.507	-0.490	0.391	0.881
V_ENTRO	51	3.701	7.844	6.988	1.064	5.465	7.623	2.158
V_CNT75	51	2.000	111.000	69.490	28.442	17.000	94.000	77.000
V_CNT95	51	5.000	306.000	208.784	87.444	38.000	280.000	242.000
VN_CNT95	51	0.063	0.185	0.101	0.025	0.079	0.120	0.041

Table 14  
Visible Target Metrics Summary for Testing Imagery

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
V_MEAN	24	264.320	2716.220	2159.800	707.262	476.910	2623.710	2146.800
V_STD	24	29.790	610.640	403.432	156.307	114.140	560.490	446.350
V_MIN	24	217.000	1803.000	1299.960	445.467	343.000	1682.000	1339.000
V_MAX	24	349.000	4811.000	3202.540	1118.080	813.000	4244.000	3431.000
V_TIR2	24	0.000	4.499	1.057	1.309	0.000	3.473	3.473
DARK_CON	24	-190.000	369.000	116.833	165.887	-65.000	331.000	396.000
VCON_GTP	24	0.057	0.991	0.669	0.317	0.206	0.981	0.776
VDRK_GTP	24	0.579	0.999	0.946	0.110	0.733	0.998	0.265
V_POT	24	171.000	351.000	274.000	70.956	171.000	351.000	180.000

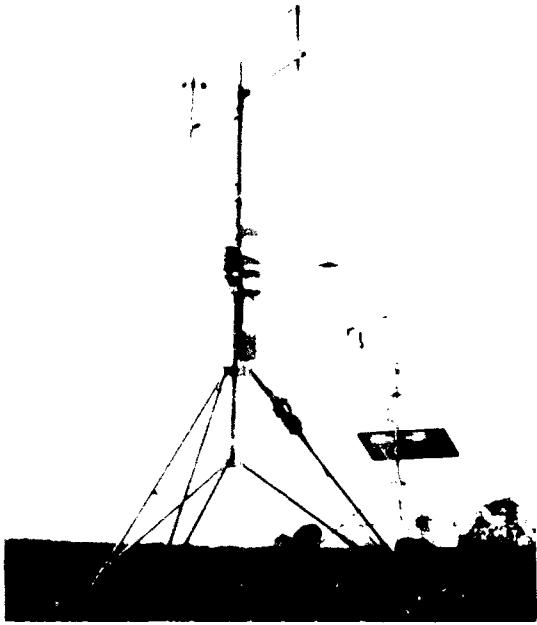


Figure 1. Automated portable weather station at Cibola site 9

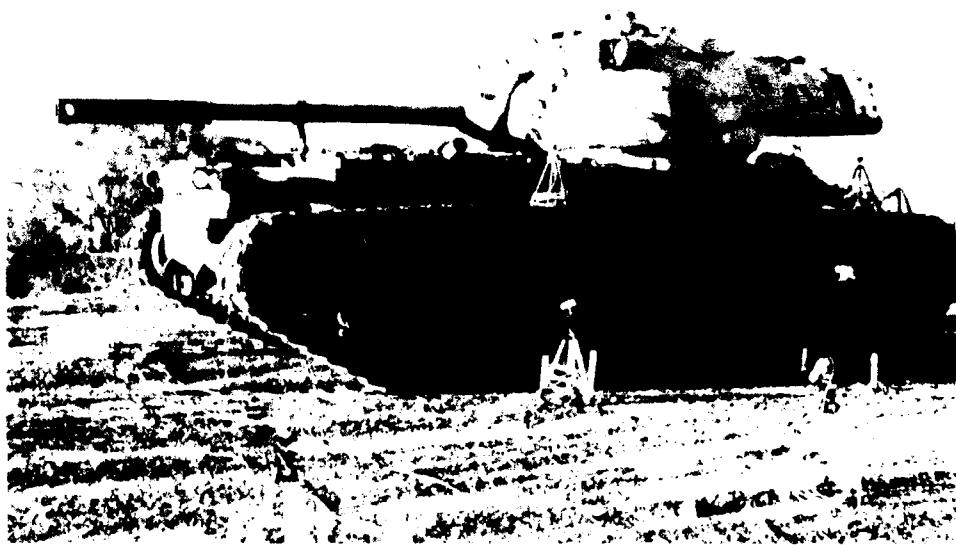


Figure 2. Hulk ETA-4 instrumented with radiometers

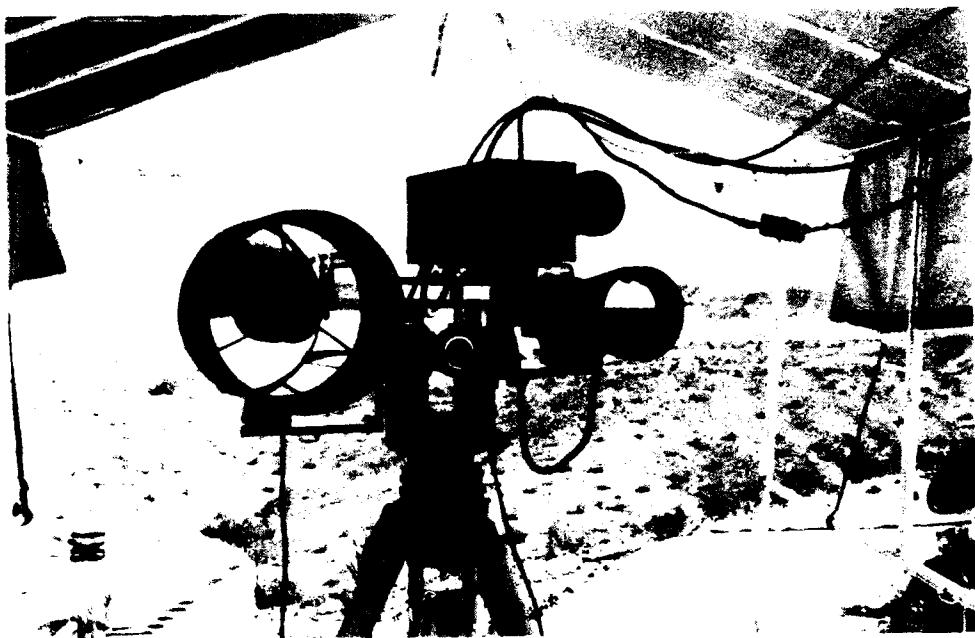


Figure 3. WES sensor suite boresighted with theodolite

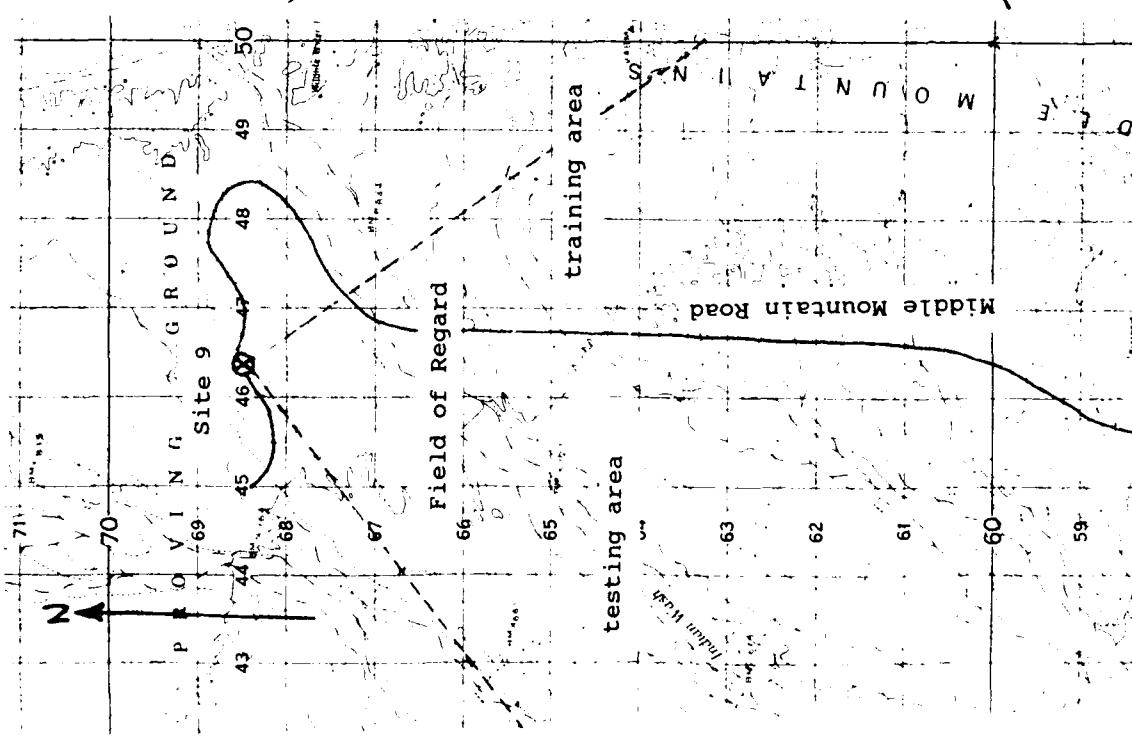
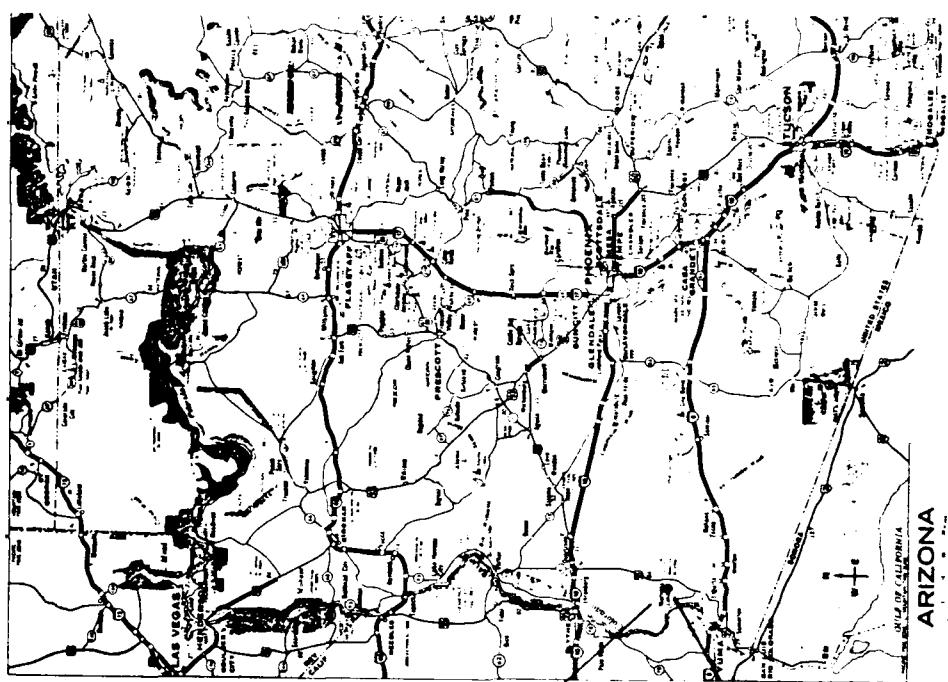


Figure 4. Location and vicinity maps of Cibola Range, site 9

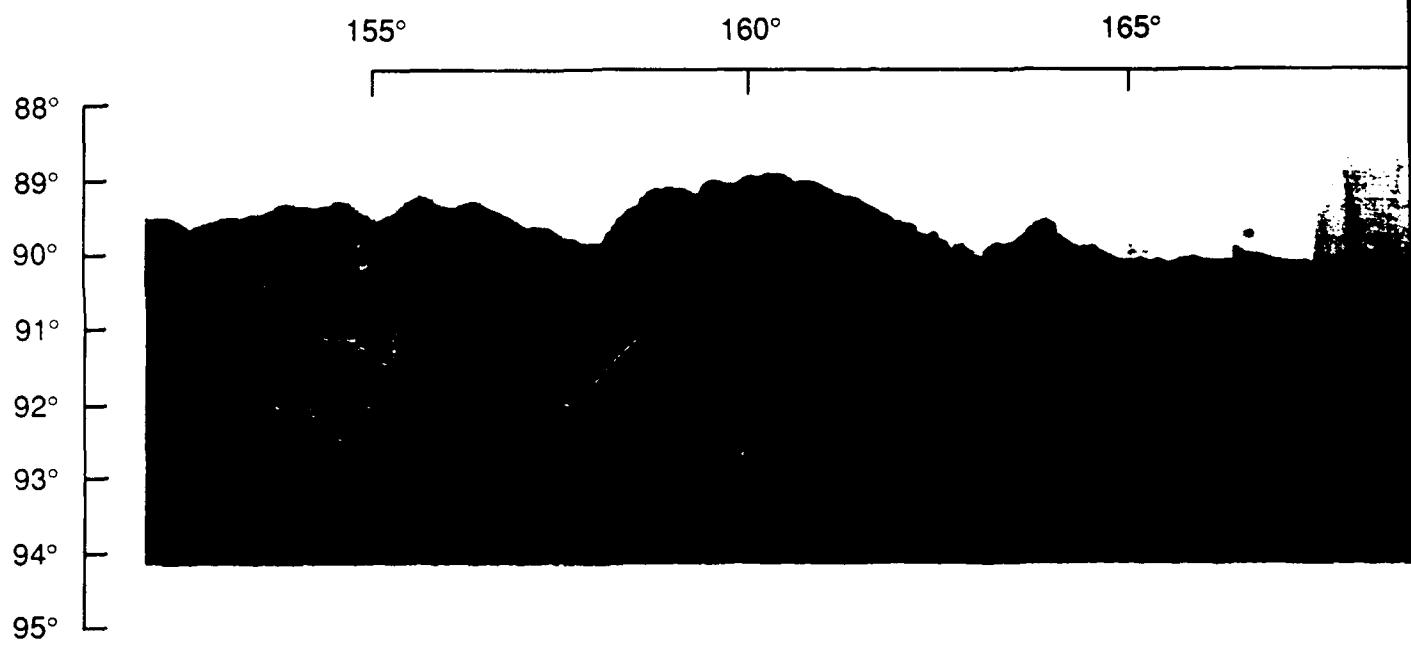


Figure 5. Photomosaic of field of regard, training area

1072

170°

175°

180°

185°

88°  
89°  
90°  
91°  
92°  
93°  
94°  
95°

292

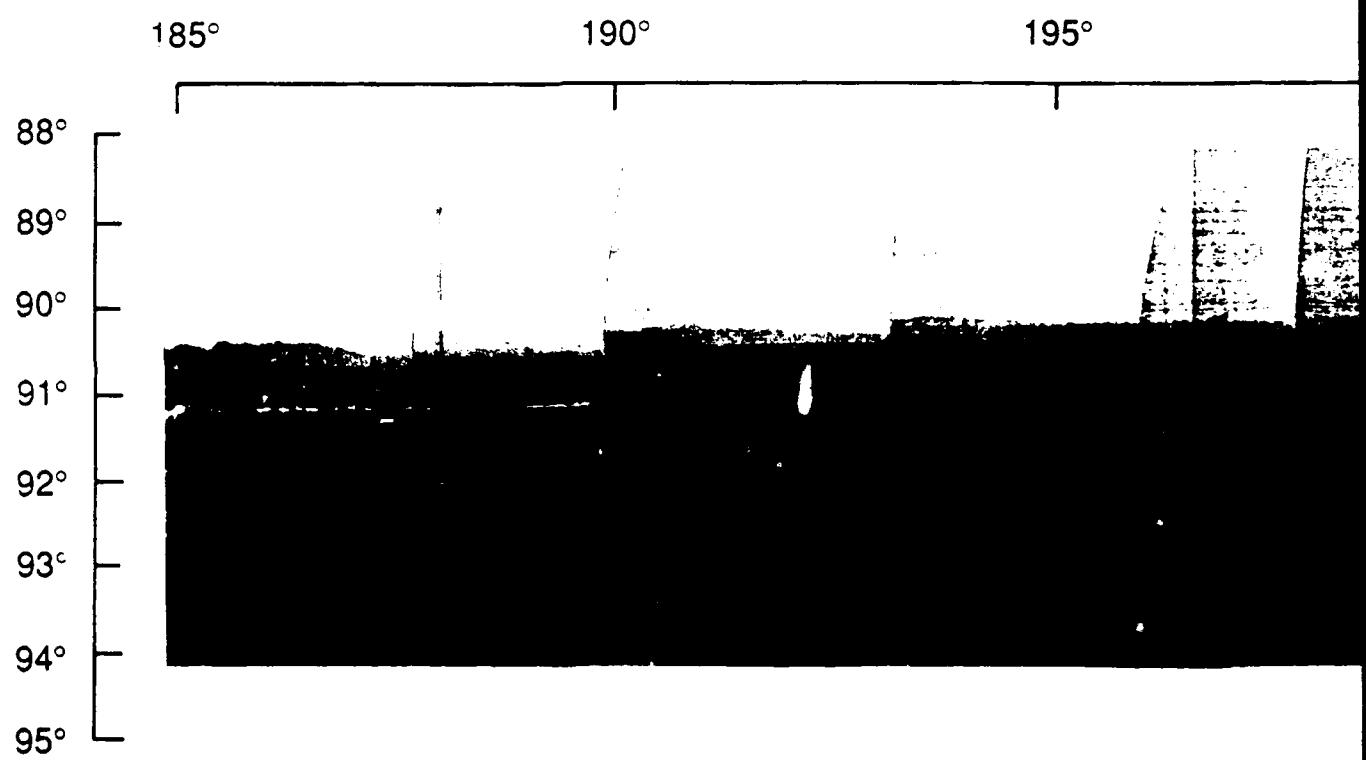


Figure 6. Photomosaic of field of regard, main testing area

7/3/02

200°

205°

210°

88°  
89°  
90°  
91°  
92°  
93°  
94°  
95°

20/2

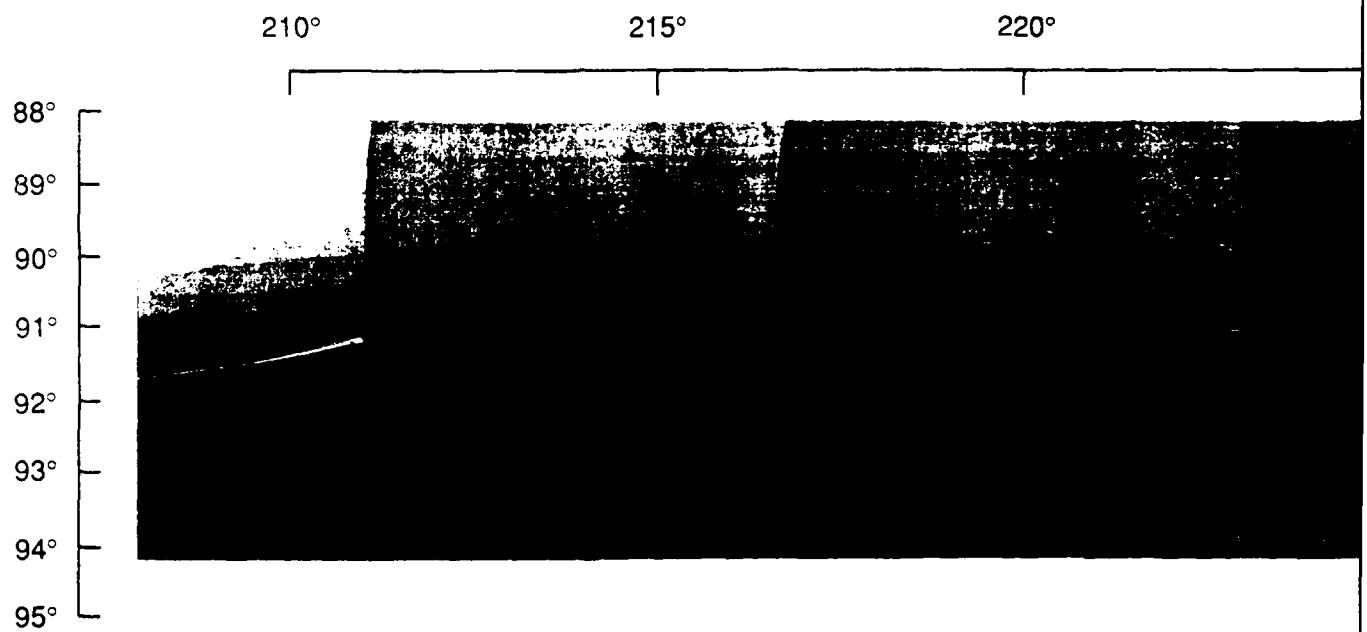
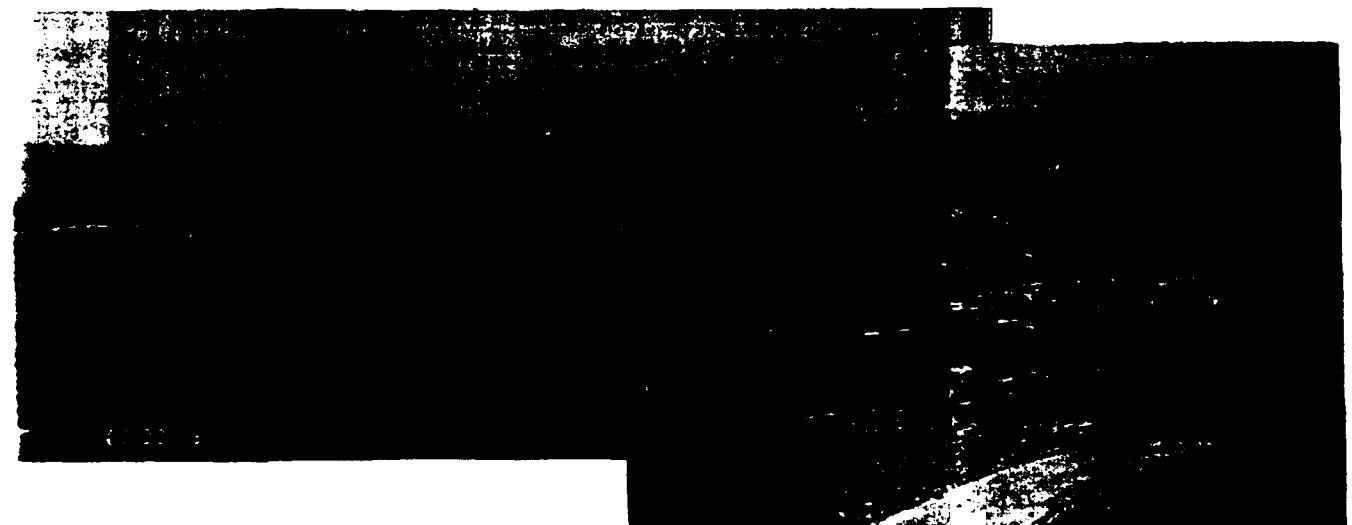


Figure 7. Photomosaic of field of regard, testing area, configurations 7 and 8

172

225° 230° 235° 240°

88°  
89°  
90°  
91°  
92°  
93°  
94°  
95°

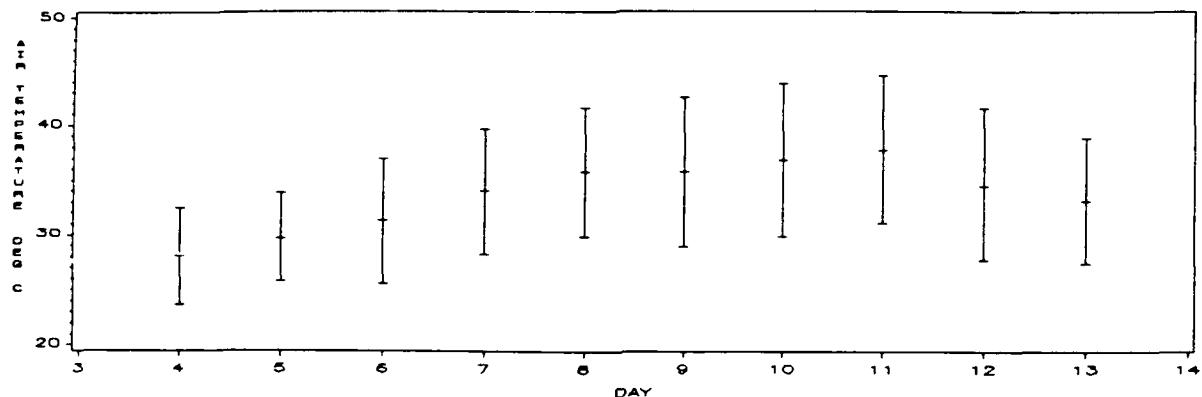


s 7 and 8

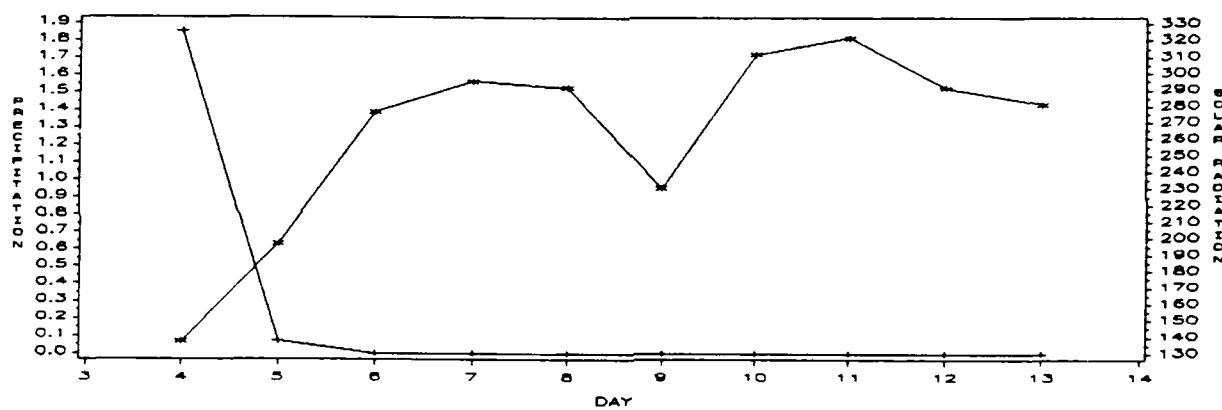
243

SEPTEMBER 4 - SEPTEMBER 13

a) MEAN AIR TEMPERATURE BOUNDED BY MAXIMUM AND MINIMUM VALUE

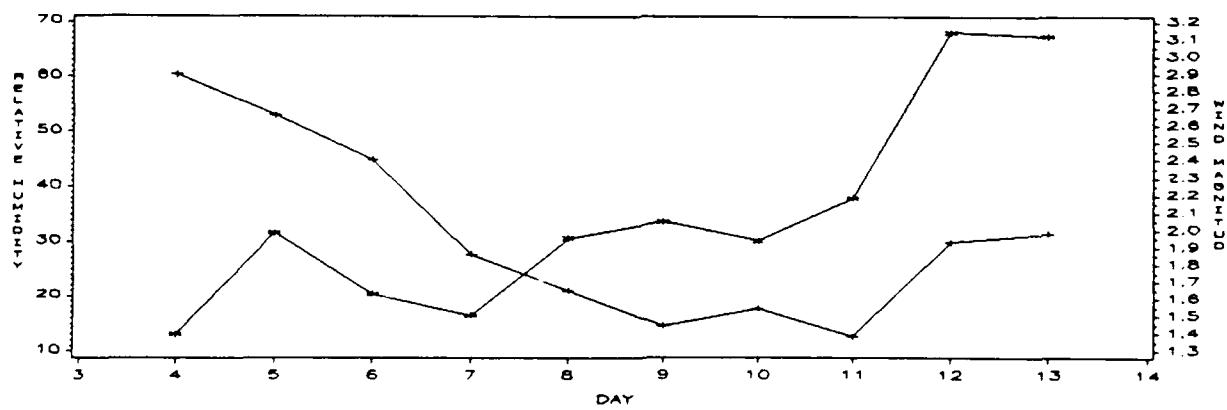


b) ACCUMULATED PRECIPITATION / MEAN SOLAR RADIATION



LEGEND: + + PRECIPITATION (INCHES) -- SOLAR RADIATION (W/M²)

c) MEAN RELATIVE HUMIDITY / MEAN WIND MAGNITUDE



LEGEND: + + RELATIVE HUMIDITY (%) -- WIND MAGNITUDE (M/S)

Figure 8. Summary of daily meteorological conditions, 4-13 September 1990

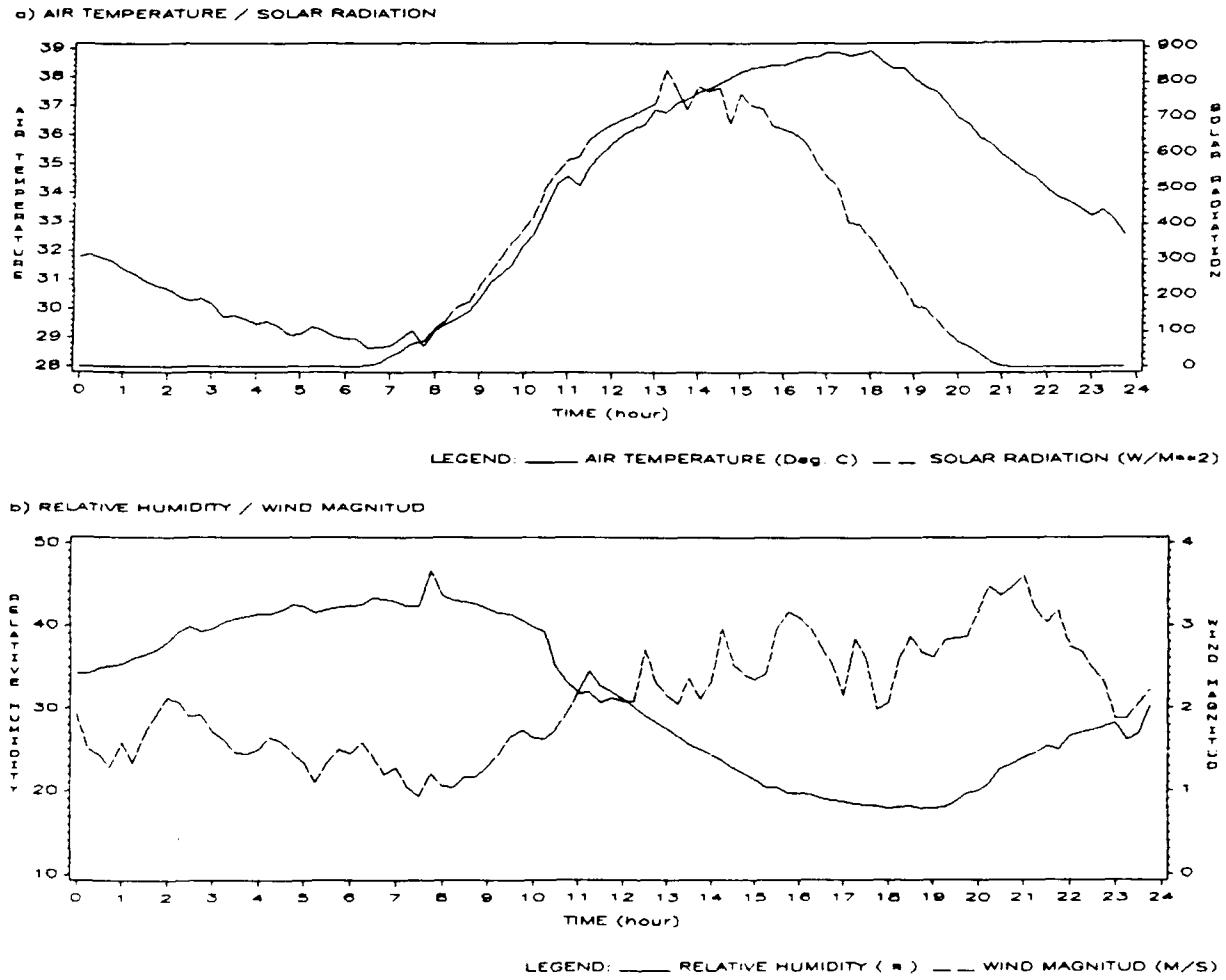


Figure 9. Averaged diurnal meteorological conditions, 4-13 September 1990

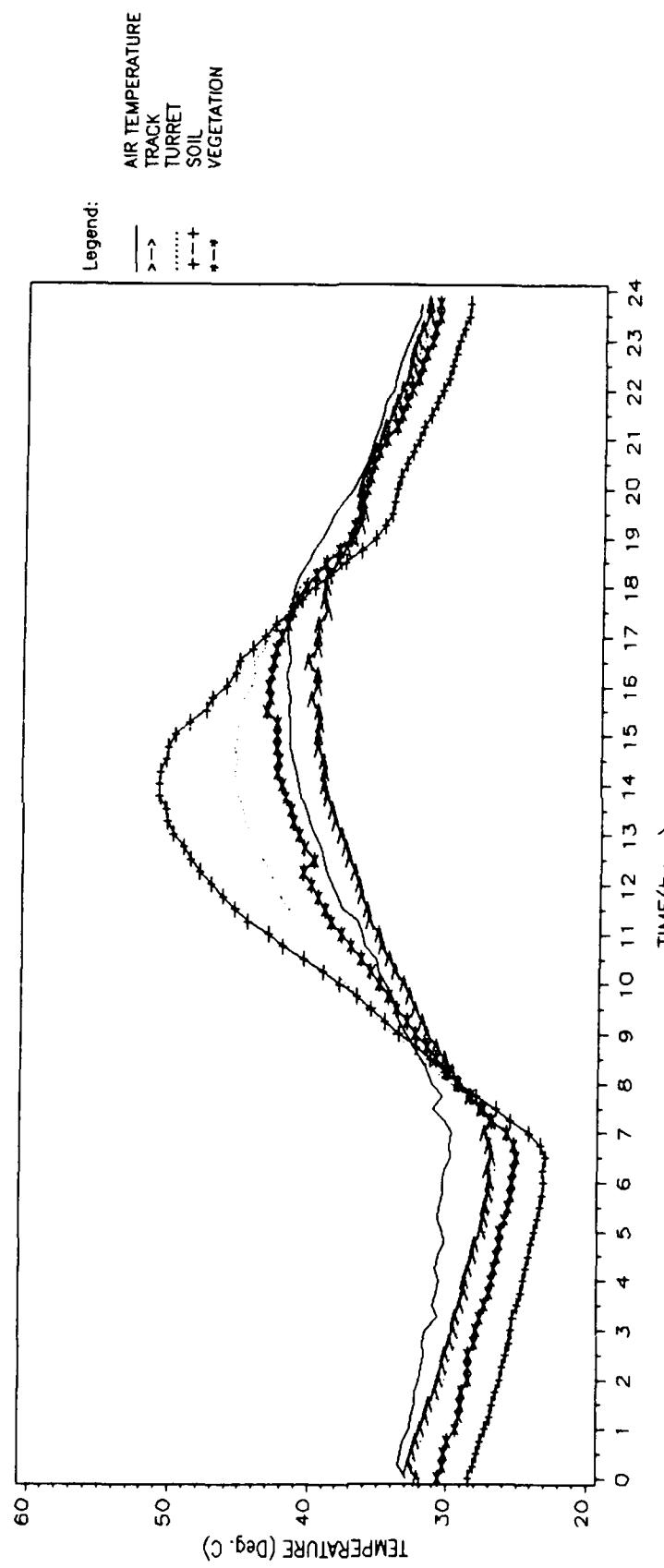


Figure 10. Averaged diurnal radiometric temperatures of hulk target and background features

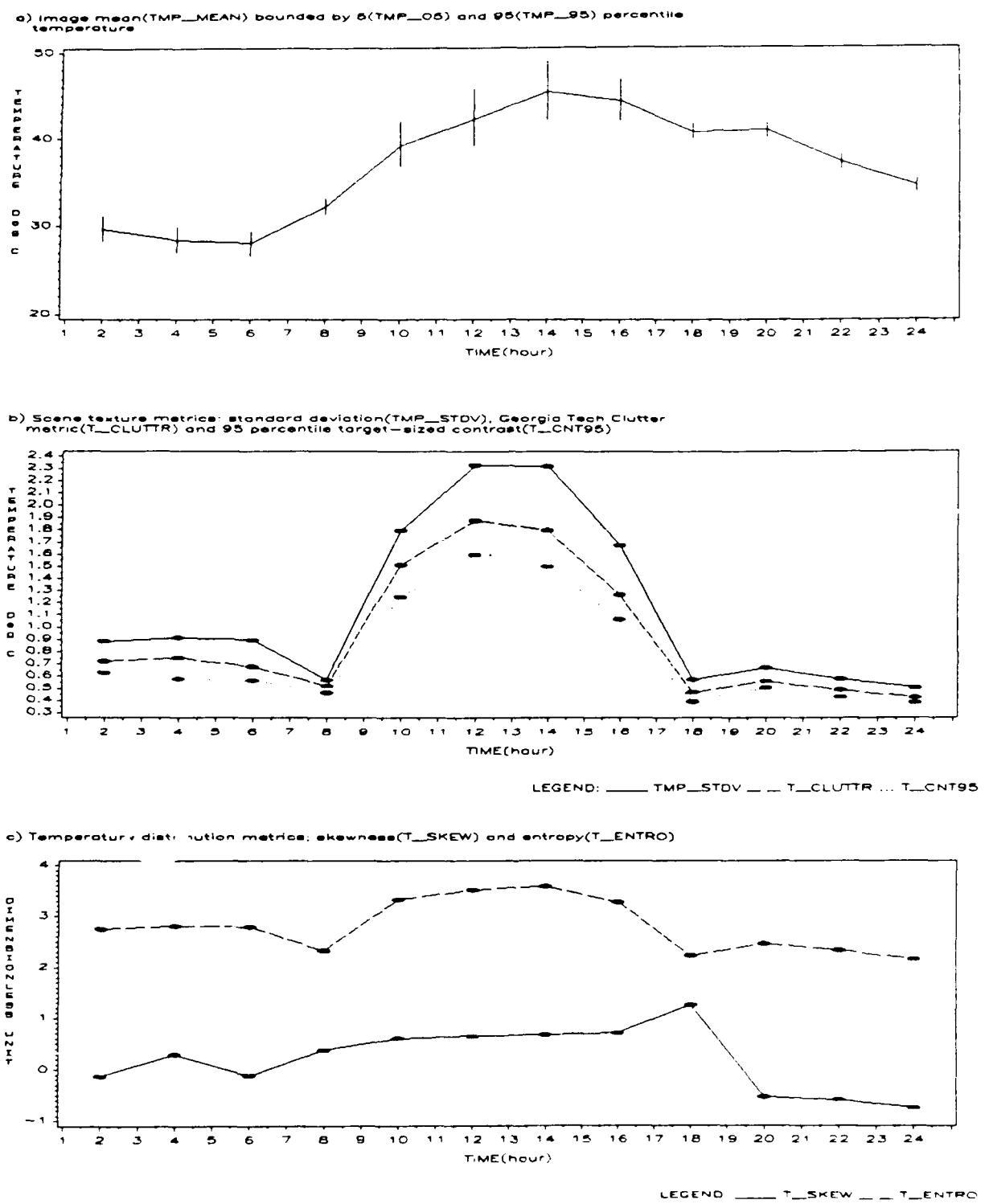


Figure 11. Effects of time of day on thermal scene metrics, for 13 September baseline imagery

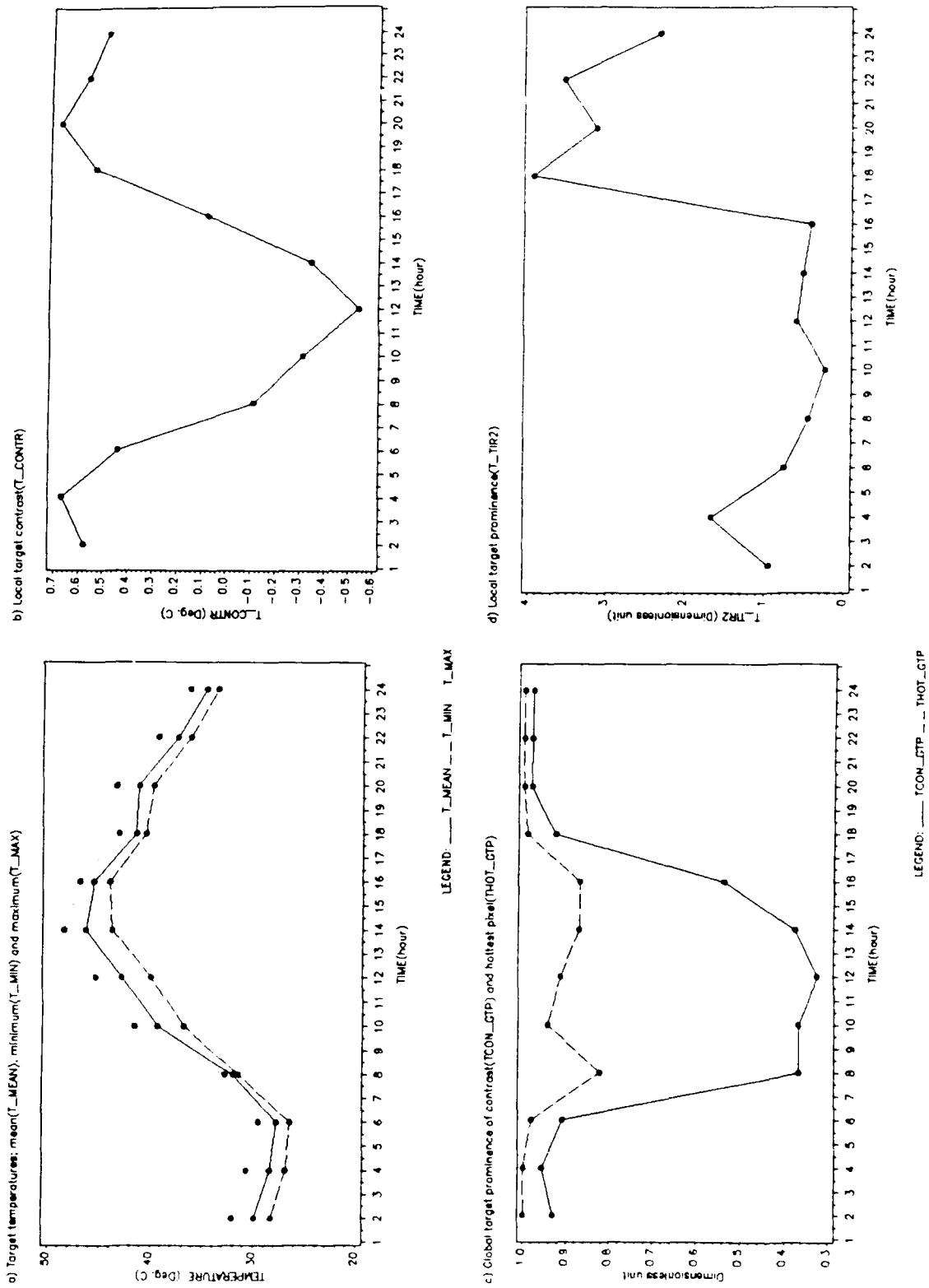


Figure 12. Effects of time of day on thermal target metrics, for 13 September baseline imagery

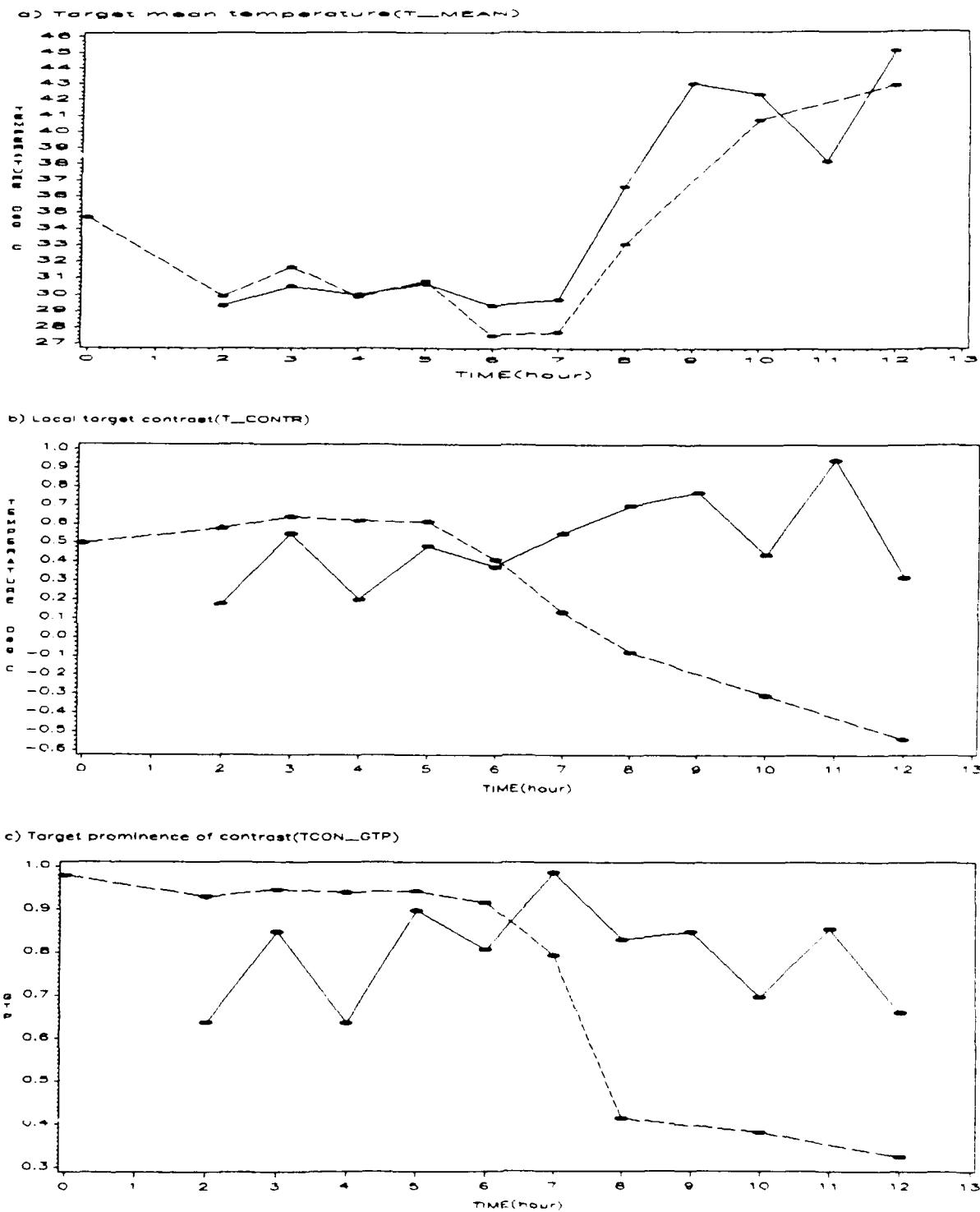
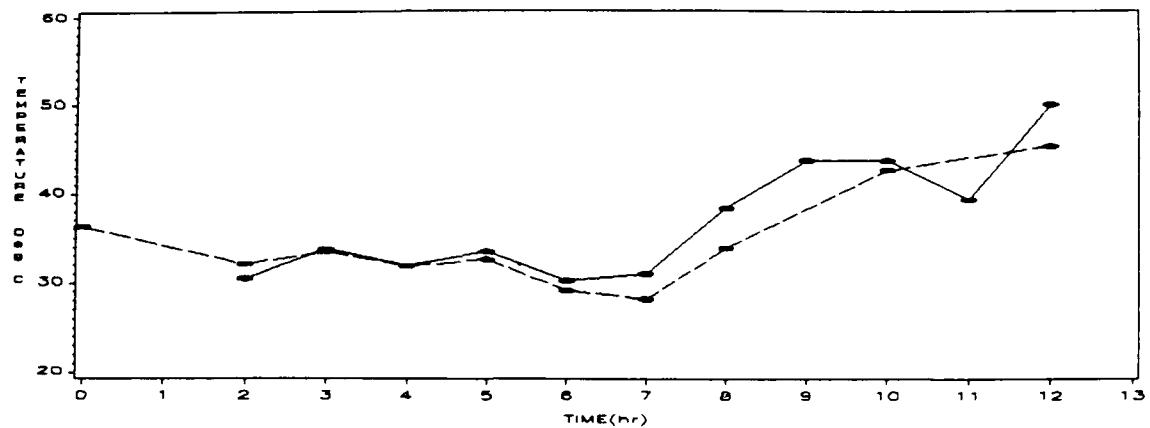
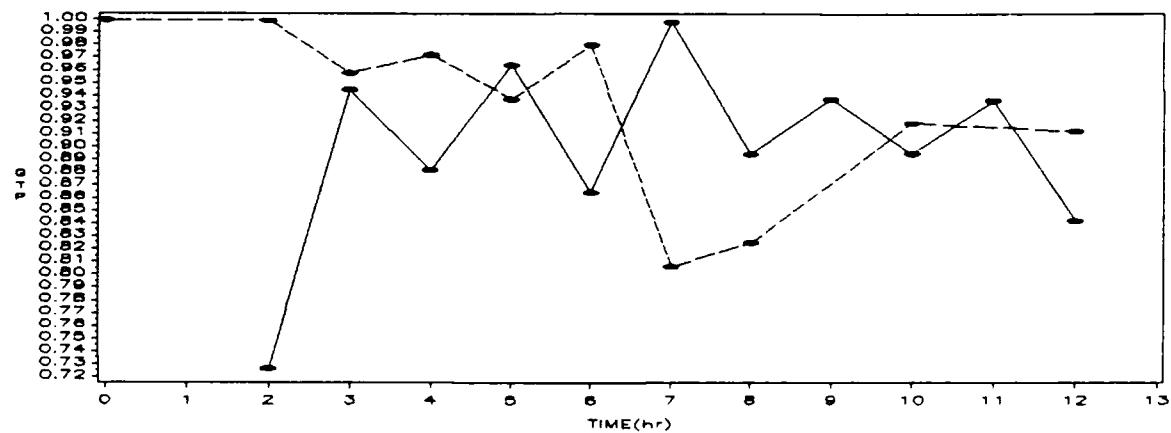


Figure 13. Comparison of hulk targets (dashed line) and live targets (solid line) for selected thermal target metrics (Sheet 1 of 2)

d) Target maximum temperature( $T_{MAX}$ )



e) Hottest pixel( $T_{HOT\_GTP}$ )



f) Local target prominence( $T_{TIR2}$ )

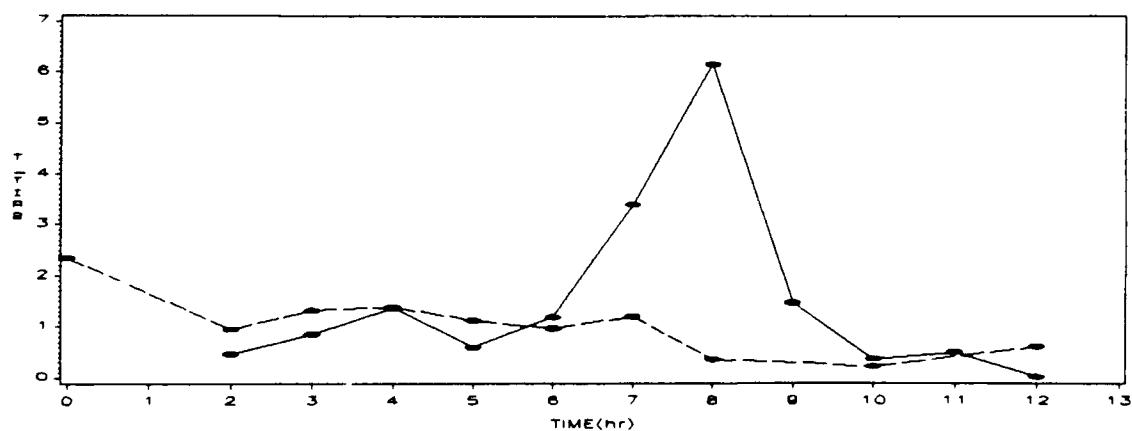


Figure 13. (Sheet 2 of 2)

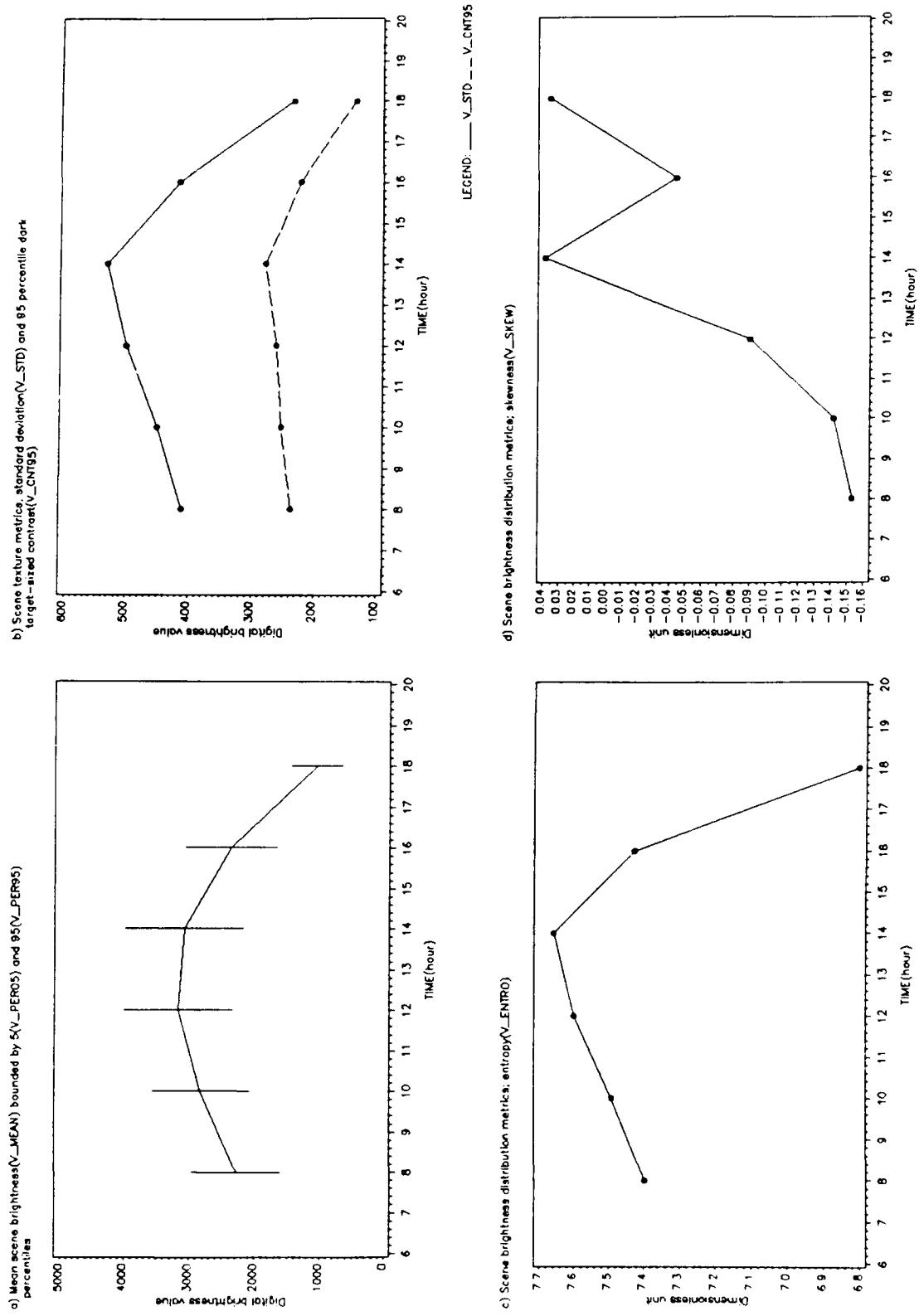
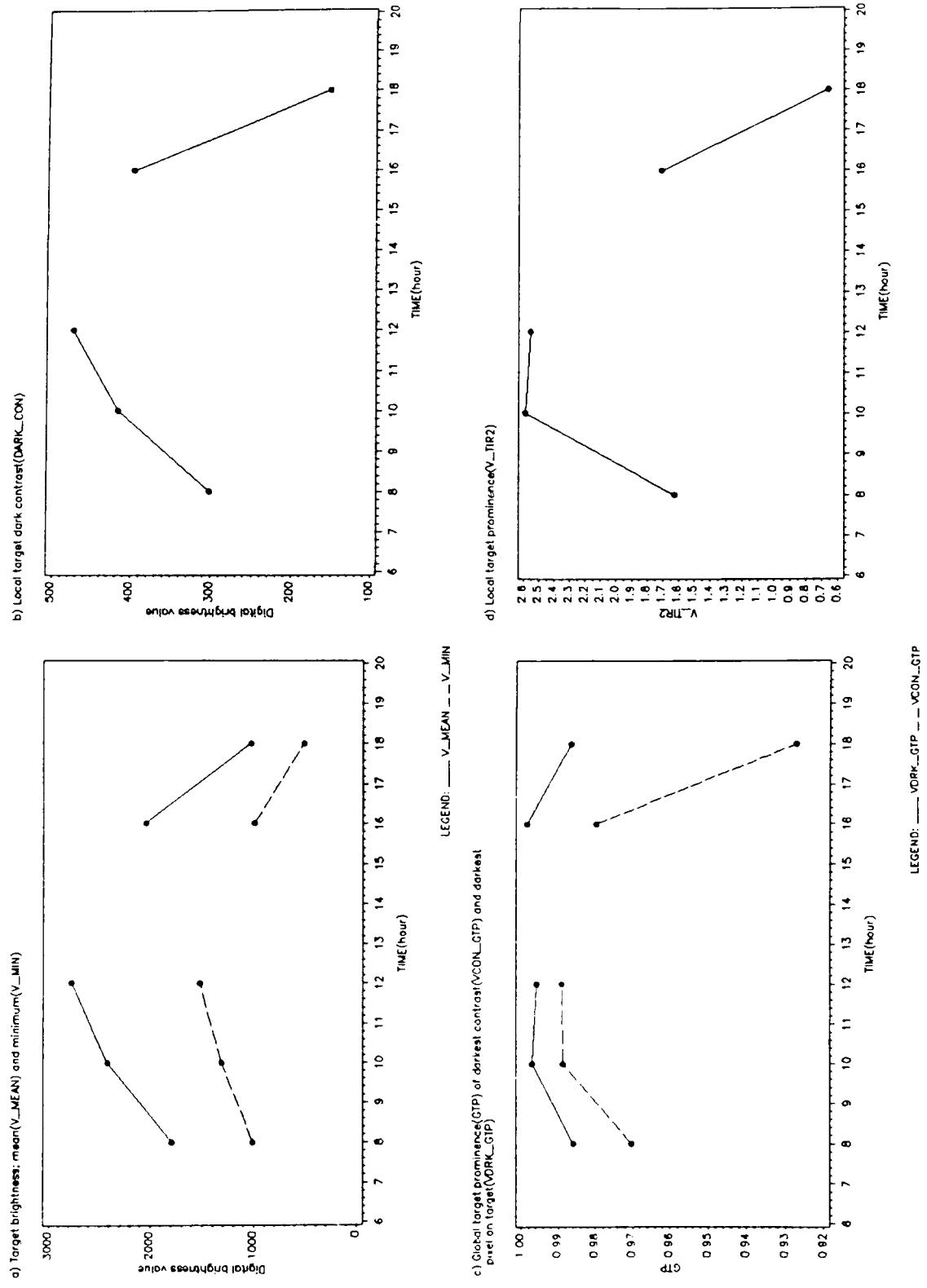


Figure 14. Effect of time of day on scene metrics in the visible band, for 13 September baseline imagery



**Figure 15.** Effects of time of day on visible target metrics, for 13 September baseline imagery

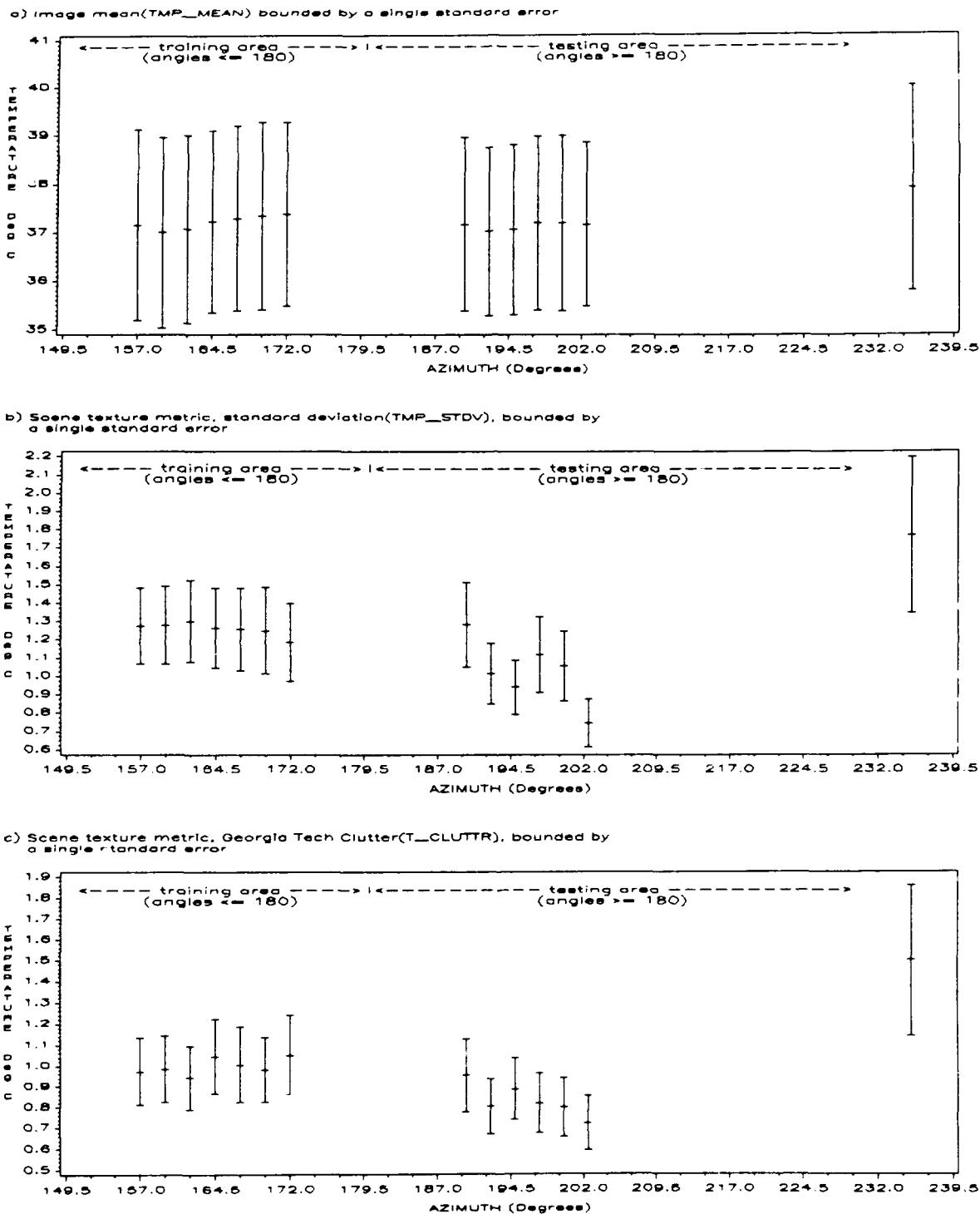


Figure 16. Comparison of thermal scene metrics by view azimuth for 13 September baseline imagery. Azimuth angles less than 180 deg represent training areas, those greater than 180 deg represent test areas (Sheet 1 of 2)

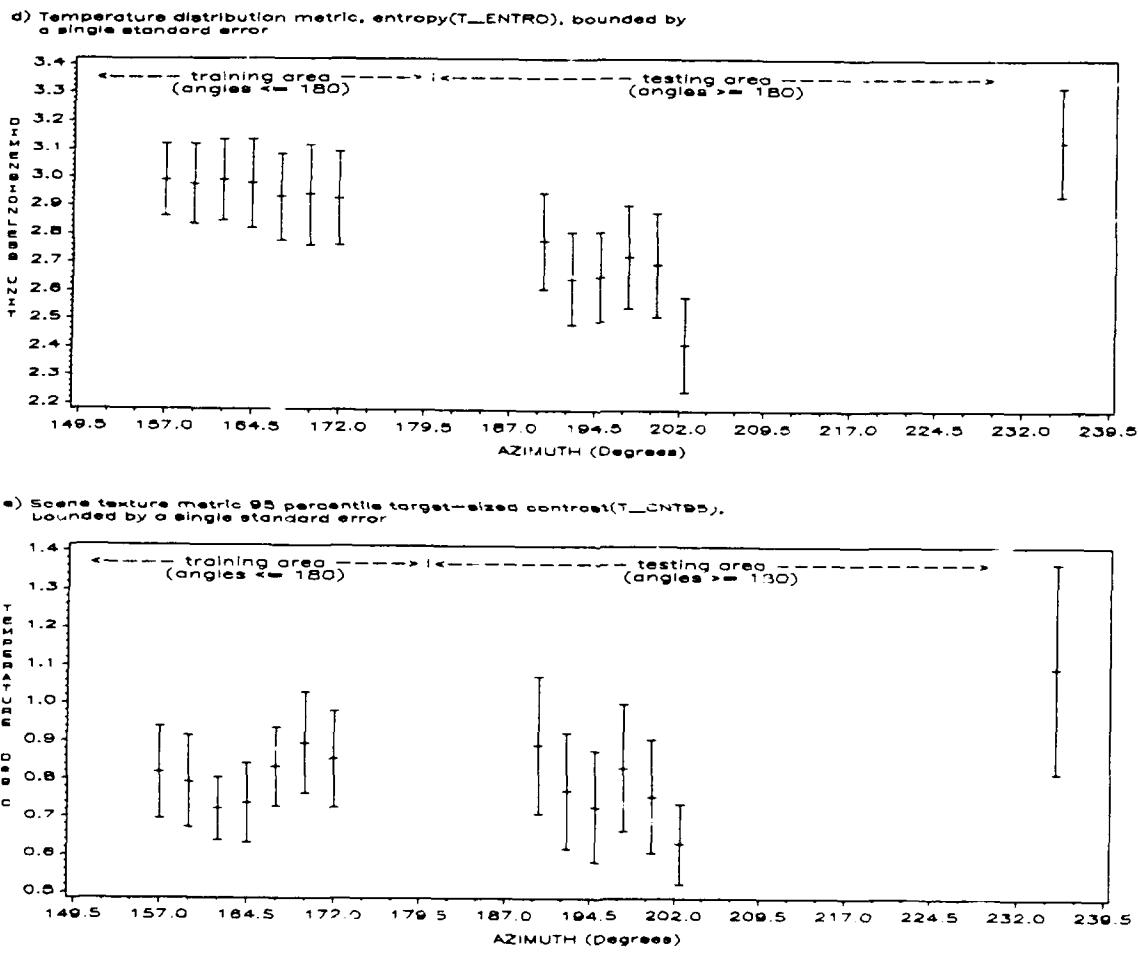


Figure 16. (Sheet 2 of 2)

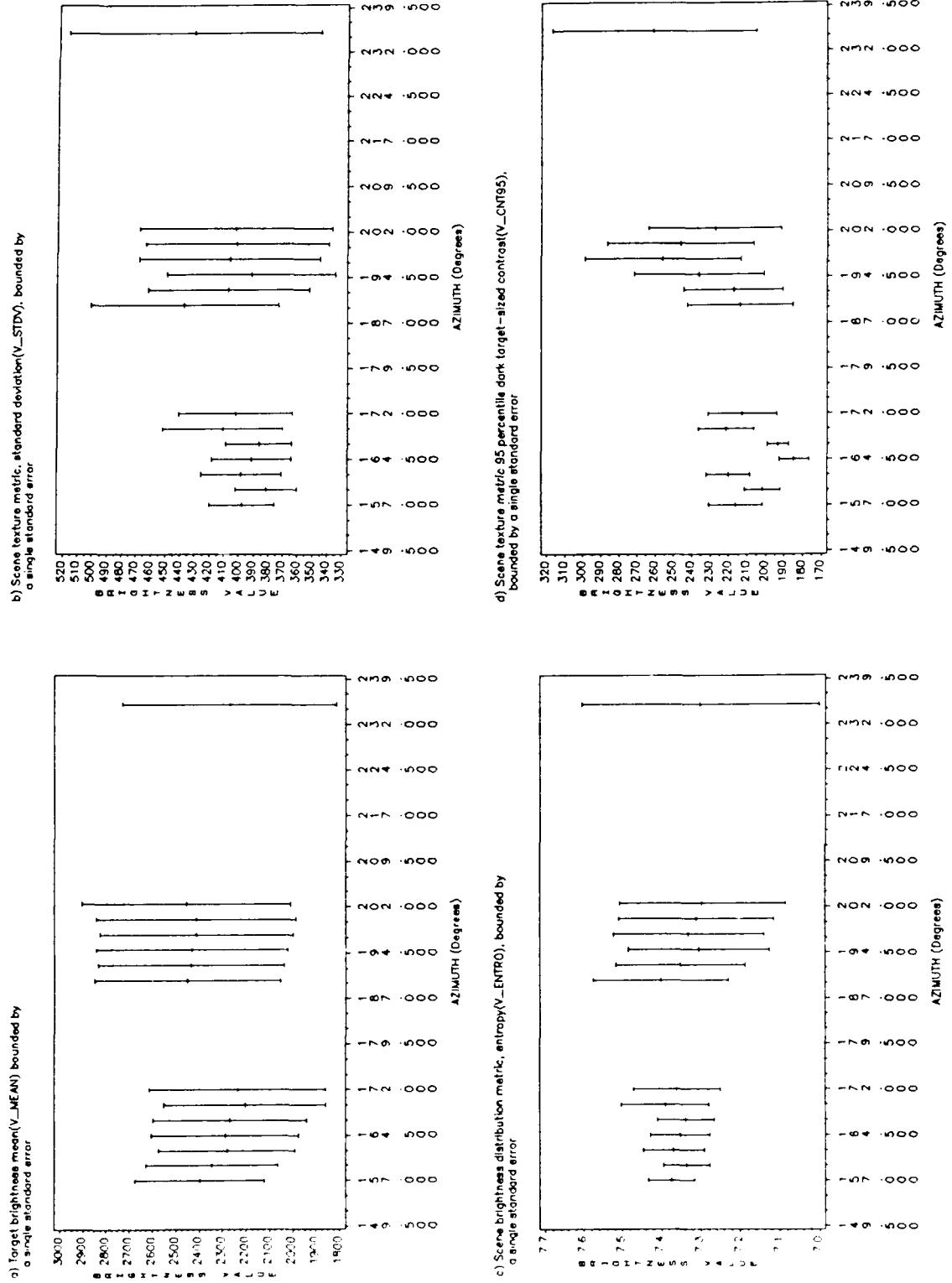
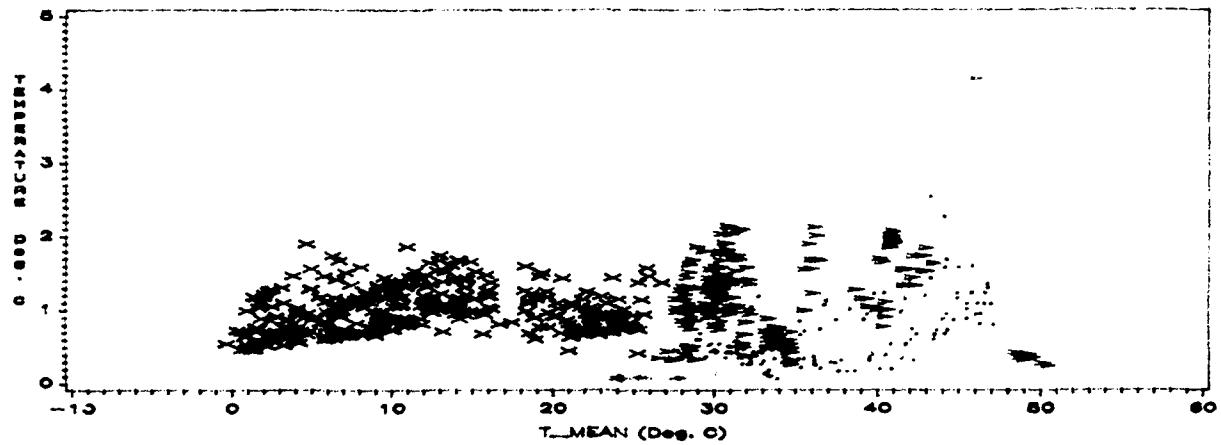
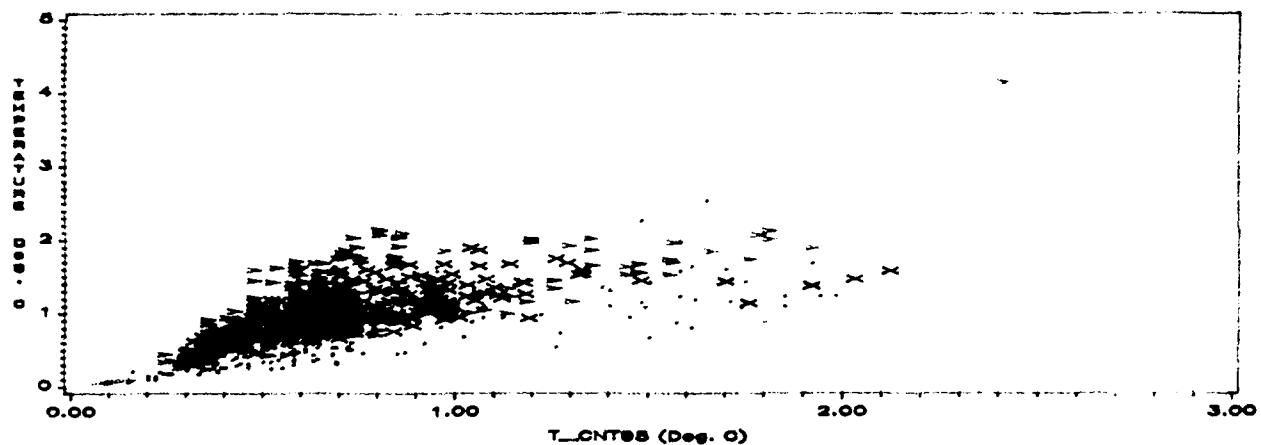


Figure 17. Comparison of visible scene metrics by view azimuth for 13 September baseline imagery. Azimuth angles less than 180 deg represent training areas, those greater than 180 represent testing areas

a) Target standard deviation( $T_{STD}$ ) versus target mean temperature( $T_{MEAN}$ )



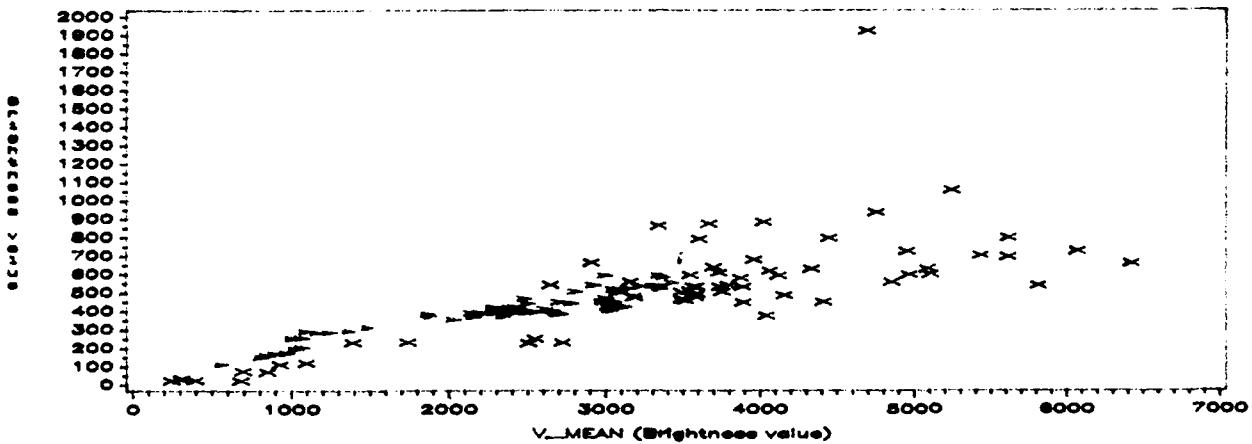
b) Target standard deviation( $T_{STD}$ ) versus 95 percentile dark target-sized contrast( $T_{CNT95}$ )



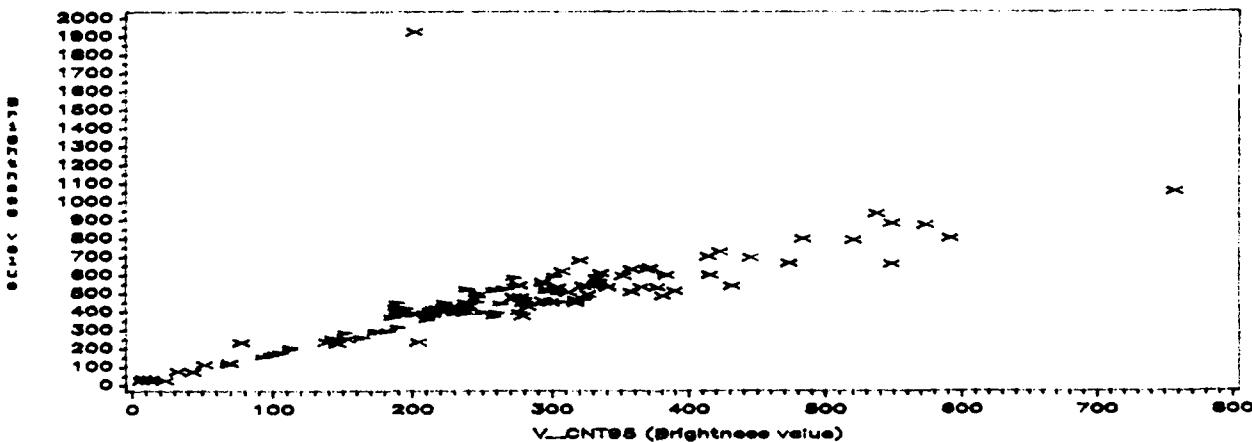
Legend: DEM/VAL (RED >) Ft. Hunter Liggett (BLACK X) YPG (GREEN .) Orlando (YELLOW +)

Figure 18. Thermal scene metrics comparison for several ATR test sites using baseline imagery

a) Scene texture metrics: standard deviation(V\_STD) versus mean(V\_MEAN)



b) Scene texture metrics: standard deviation(T\_STD) versus 95 percentile dark target-sized contrast(V\_CNT95)



Legend: DEM/VAL (RED >>) MFSD (BLACK XXX)

Figure 19. Visible scene metrics comparison for DEM/VAL site and Fort Hunter Liggett (MFSD) site using baseline imagery

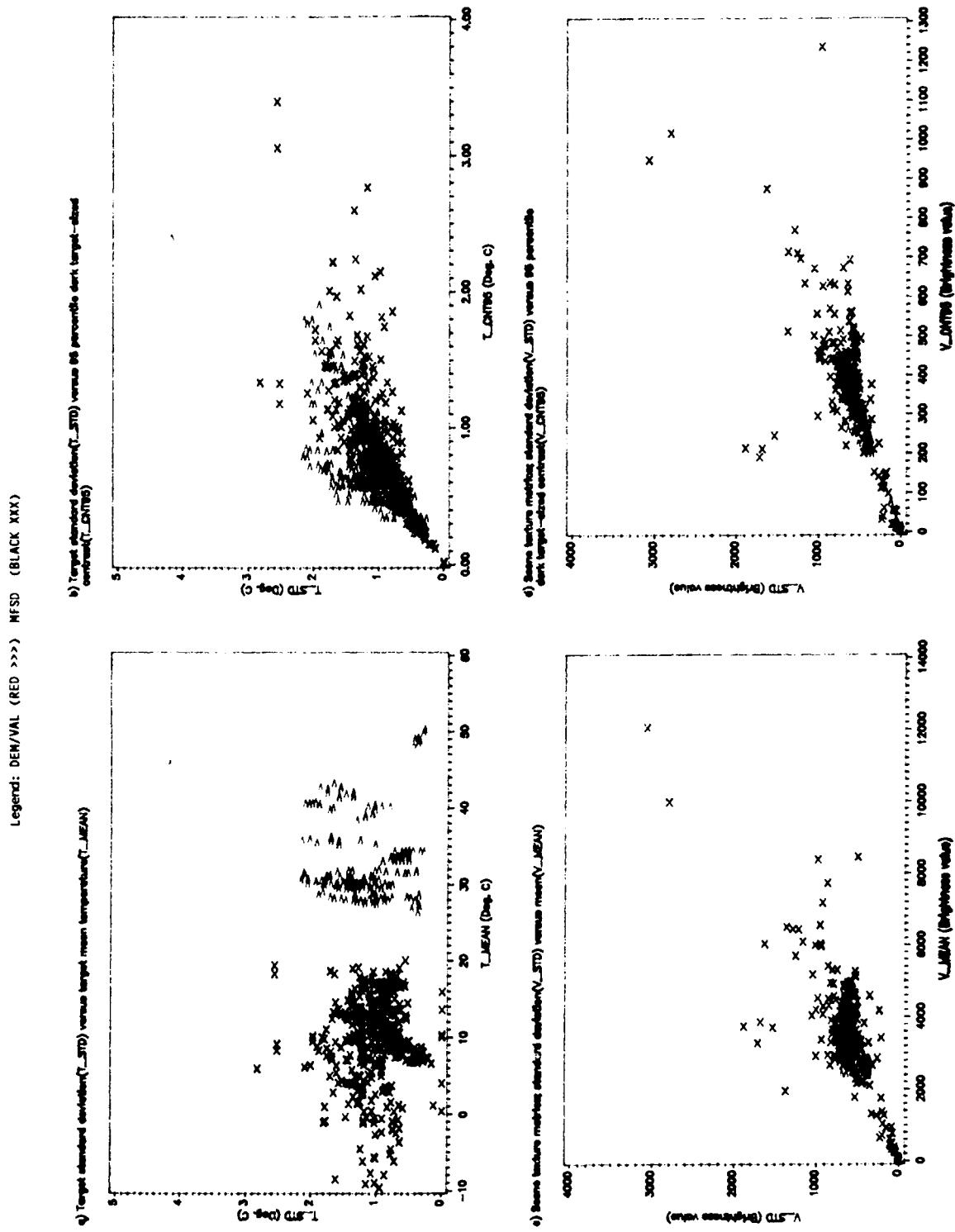


Figure 20. Thermal and visible scene metrics for system testing at Fort Hunter Liggett (MSFD)

**APPENDIX A: METEOROLOGICAL AND RADIOMETRIC DATA**

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M <sup>2</sup> )	WIND MAGNITUD (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
02SEP90:10:15	.	.	.	.	.	.	30.03	29.35	42.68	.
02SEP90:10:30	.	.	.	.	.	.	30.58	30.30	44.21	.
02SEP90:10:45	.	.	.	.	.	.	30.32	30.03	44.72	.
02SEP90:11:00	.	.	.	.	.	.	31.33	31.30	46.62	.
02SEP90:11:15	.	.	.	.	.	.	31.83	31.73	48.27	.
02SEP90:11:30	.	.	.	.	.	.	31.98	32.26	49.07	.
02SEP90:11:45	.	.	.	.	.	.	32.61	32.55	50.81	.
02SEP90:12:00	.	.	.	.	.	.	33.01	33.18	51.94	.
02SEP90:12:15	.	.	.	.	.	.	33.28	33.35	52.72	.
02SEP90:12:30	.	.	.	.	.	.	33.67	33.28	54.06	.
02SEP90:12:45	.	.	.	.	.	.	33.17	32.33	54.08	.
02SEP90:13:00	.	.	.	.	.	.	35.02	34.27	55.30	.
02SEP90:13:15	.	.	.	.	.	.	35.35	34.38	56.36	.
02SEP90:13:30	.	.	.	.	.	.	35.72	34.95	56.78	.
02SEP90:13:45	.	.	.	.	.	.	36.30	35.14	57.17	.
02SEP90:14:00	.	.	.	.	.	.	36.83	35.44	57.50	.
02SEP90:14:15	.	.	.	.	.	.	36.56	35.56	56.62	.
02SEP90:14:30	.	.	.	.	.	.	36.66	34.78	55.91	.
02SEP90:14:45	.	.	.	.	.	.	37.50	35.73	55.72	.
02SEP90:15:00	.	.	.	.	.	.	38.22	36.35	55.02	.
02SEP90:15:15	.	.	.	.	.	.	38.91	37.37	54.66	.
02SEP90:15:30	.	.	.	.	.	.	38.97	37.45	55.00	.
02SEP90:15:45	.	.	.	.	.	.	39.13	37.25	54.79	.
02SEP90:16:00	.	.	.	.	.	.	38.85	36.60	52.51	.
02SEP90:16:15	.	.	.	.	.	.	39.77	37.17	52.20	.
02SEP90:16:30	.	.	.	.	.	.	39.60	36.72	51.25	.
02SEP90:16:45	.	.	.	.	.	.	39.48	36.34	48.89	.
02SEP90:17:00	.	.	.	.	.	.	40.09	37.08	47.75	.
02SEP90:17:15	.	.	.	.	.	.	40.73	37.83	46.02	.
02SEP90:17:30	.	.	.	.	.	.	41.09	38.17	44.80	.
02SEP90:17:45	.	.	.	.	.	.	41.40	38.24	43.97	.
02SEP90:18:00	.	.	.	.	.	.	41.38	38.38	42.26	.
02SEP90:18:15	.	.	.	.	.	.	41.39	38.19	40.74	.
02SEP90:18:30	.	.	.	.	.	.	41.28	37.81	39.23	.
02SEP90:18:45	.	.	.	.	.	.	41.02	37.62	37.42	.
02SEP90:19:00	.	.	.	.	.	.	40.69	37.15	35.84	.
02SEP90:19:15	.	.	.	.	.	.	40.60	37.20	35.02	.
02SEP90:19:30	.	.	.	.	.	.	40.41	37.16	34.18	.
02SEP90:19:45	.	.	.	.	.	.	40.13	37.03	33.70	.
02SEP90:20:00	.	.	.	.	.	.	39.85	36.89	33.07	.
02SEP90:20:15	.	.	.	.	.	.	39.52	36.72	32.65	.
02SEP90:20:30	.	.	.	.	.	.	39.22	36.57	32.30	.
02SEP90:20:45	.	.	.	.	.	.	38.87	36.39	31.85	.
02SEP90:21:00	.	.	.	.	.	.	38.45	36.11	31.32	.
02SEP90:21:15	.	.	.	.	.	.	38.10	35.88	30.83	.
02SEP90:21:30	.	.	.	.	.	.	37.79	35.67	30.45	.
02SEP90:21:45	.	.	.	.	.	.	37.42	35.44	30.08	.
02SEP90:22:00	.	.	.	.	.	.	37.10	35.23	29.69	.
02SEP90:22:15	.	.	.	.	.	.	36.82	35.09	29.37	.
02SEP90:22:30	.	.	.	.	.	.	36.62	34.98	29.34	.

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M <sup>-2</sup> )	WIND MAGNITUD (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
02SEP90:22:45	.	.	.	.	.	.	36.18	34.69	29.13	.
02SEP90:23:00	.	.	.	.	.	.	35.82	34.42	28.92	.
02SEP90:23:15	.	.	.	.	.	.	35.42	34.15	28.72	.
02SEP90:23:30	.	.	.	.	.	.	35.04	33.84	28.48	.
02SEP90:23:45	.	.	.	.	.	.	34.69	33.56	28.17	.
03SEP90:00:00	.	.	.	.	.	.	34.42	33.32	27.87	.
03SEP90:00:15	.	.	.	.	.	.	34.10	33.08	27.49	.
03SEP90:00:30	.	.	.	.	.	.	33.84	32.86	27.11	.
03SEP90:00:45	.	.	.	.	.	.	33.59	32.66	26.91	.
03SEP90:01:00	.	.	.	.	.	.	33.28	32.42	26.76	.
03SEP90:01:15	.	.	.	.	.	.	33.09	32.19	26.59	.
03SEP90:01:30	.	.	.	.	.	.	32.86	31.98	26.41	.
03SEP90:01:45	.	.	.	.	.	.	32.64	31.81	26.33	.
03SEP90:02:00	.	.	.	.	.	.	32.42	31.60	26.17	.
03SEP90:02:15	.	.	.	.	.	.	32.18	31.40	26.07	.
03SEP90:02:30	.	.	.	.	.	.	31.94	31.19	25.84	.
03SEP90:02:45	.	.	.	.	.	.	31.66	30.96	25.70	.
03SEP90:03:00	.	.	.	.	.	.	31.43	30.75	25.56	.
03SEP90:03:15	.	.	.	.	.	.	31.35	30.65	25.49	.
03SEP90:03:30	.	.	.	.	.	.	31.12	30.52	25.40	.
03SEP90:03:45	.	.	.	.	.	.	30.88	30.31	25.32	.
03SEP90:04:00	.	.	.	.	.	.	30.63	30.10	25.07	.
03SEP90:04:15	.	.	.	.	.	.	30.42	29.90	25.01	.
03SEP90:04:30	.	.	.	.	.	.	30.26	29.80	24.83	.
03SEP90:04:45	.	.	.	.	.	.	30.10	29.64	24.88	.
03SEP90:05:00	.	.	.	.	.	.	29.99	29.61	25.00	.
03SEP90:05:15	.	.	.	.	.	.	29.74	29.40	24.66	.
03SEP90:05:30	.	.	.	.	.	.	29.53	29.21	24.49	.
03SEP90:05:45	.	.	.	.	.	.	29.27	28.98	24.30	.
03SEP90:06:00	.	.	.	.	.	.	29.37	29.03	24.90	.
03SEP90:06:15	.	.	.	.	.	.	29.30	29.03	25.31	.
03SEP90:06:30	.	.	.	.	.	.	29.17	28.91	25.60	.
03SEP90:06:45	.	.	.	.	.	.	29.23	29.00	26.35	.
03SEP90:07:00	.	.	.	.	.	.	29.41	29.24	27.34	.
03SEP90:07:15	.	.	.	.	.	.	29.51	29.38	28.27	.
03SEP90:07:30	.	.	.	.	.	.	29.52	29.47	28.89	.
03SEP90:07:45	.	.	.	.	.	.	29.57	29.50	29.11	.
03SEP90:08:00	.	.	.	.	.	.	29.80	29.73	30.09	.
03SEP90:08:15	.	.	.	.	.	.	30.38	30.37	32.07	.
03SEP90:08:30	.	.	.	.	.	.	31.28	31.39	35.83	.
03SEP90:08:45	.	.	.	.	.	.	31.10	31.39	36.94	.
03SEP90:09:00	.	.	.	.	.	.	31.25	31.27	37.45	.
03SEP90:09:15	.	.	.	.	.	.	32.12	32.12	40.96	.
03SEP90:09:30	.	.	.	.	.	.	32.55	32.91	44.77	.
03SEP90:09:45	.	.	.	.	.	.	32.41	32.12	45.96	.
03SEP90:10:00	.	.	.	.	.	.	32.28	32.40	45.53	.
03SEP90:10:15	.	.	.	.	.	.	32.10	31.61	42.69	.
03SEP90:10:30	.	.	.	.	.	.	33.71	33.65	48.67	.
03SEP90:10:45	.	.	.	.	.	.	34.14	33.49	48.89	.
03SEP90:11:00	.	.	.	.	.	.	34.11	33.73	50.54	.

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/m <sup>2</sup> )	WIND MAGNITUDE (m/s)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
03SEP90:11:15	.	.	.	.	.	.	34.00	32.91	51.53	.
03SEP90:11:30	.	.	.	.	.	.	35.08	34.12	53.91	.
03SEP90:11:45	.	.	.	.	.	.	35.20	34.60	54.75	.
03SEP90:12:00	.	.	.	.	.	.	35.88	35.55	56.11	.
03SEP90:12:15	.	.	.	.	.	.	35.70	35.30	56.20	.
03SEP90:12:30	.	.	.	.	.	.	35.91	35.17	56.02	.
03SEP90:12:45	.	.	.	.	.	.	36.55	35.91	56.45	.
03SEP90:13:00	.	.	.	.	.	.	37.43	36.38	57.37	.
03SEP90:13:15	.	.	.	.	.	.	37.53	36.37	57.11	.
03SEP90:13:30	.	.	.	.	.	.	38.25	37.13	57.44	.
03SEP90:13:45	.	.	.	.	.	.	38.76	38.08	58.08	.
03SEP90:14:00	.	.	.	.	.	.	38.66	37.07	56.66	.
03SEP90:14:15	.	.	.	.	.	.	38.92	38.14	56.79	.
03SEP90:14:30	.	.	.	.	.	.	39.64	38.42	56.99	.
03SEP90:14:45	.	.	.	.	.	.	40.47	39.17	58.30	.
03SEP90:15:00	.	.	.	.	.	.	39.78	38.60	57.08	.
03SEP90:15:15	.	.	.	.	.	.	39.87	37.90	52.14	.
03SEP90:15:30	.	.	.	.	.	.	39.86	37.75	47.16	.
03SEP90:15:45	38.15	901.00	3.50	197.10	32.49	0.00	40.50	38.36	45.83	.
03SEP90:16:00	38.18	896.00	4.57	209.20	32.29	0.00	41.49	39.46	47.98	.
03SEP90:16:15	38.05	876.00	4.29	193.60	32.50	0.00	42.13	40.07	52.06	.
03SEP90:16:30	37.30	858.00	3.62	185.90	32.51	0.00	39.74	37.29	45.83	.
03SEP90:16:45	38.70	845.00	4.84	178.20	32.10	0.00	39.41	36.78	40.84	.
03SEP90:17:00	38.37	853.00	4.23	203.00	32.19	0.00	34.47	32.27	30.91	.
03SEP90:17:15	38.46	517.50	4.49	193.10	31.55	0.00	18.55	19.32	17.75	.
03SEP90:17:30	37.71	241.70	5.45	173.50	32.47	0.00	21.45	21.34	22.95	.
03SEP90:17:45	37.41	217.10	2.70	205.10	32.67	0.00	22.64	22.74	25.69	.
03SEP90:18:00	37.85	335.60	2.66	200.20	32.14	0.00	22.52	22.72	27.82	.
03SEP90:18:15	38.33	559.00	3.09	279.70	30.74	0.00	22.53	22.60	29.41	.
03SEP90:18:30	37.34	216.60	8.00	351.70	33.20	0.00	21.74	22.16	29.80	.
03SEP90:18:45	35.63	88.70	9.75	349.00	35.33	0.00	20.94	21.59	29.89	.
03SEP90:19:00	33.71	14.64	7.73	22.80	42.98	0.00	20.73	21.19	29.90	.
03SEP90:19:15	.	.	3.93	55.58	.	0.08	21.18	21.83	31.84	.
03SEP90:19:30	.	.	0.85	4.85	.	0.02	21.37	21.91	32.52	.
03SEP90:19:45	.	.	0.48	0.31	.	0.00	21.57	21.92	33.39	.
03SEP90:20:00	.	1.37	0.45	1.12	.	0.02	21.19	21.82	32.36	.
03SEP90:20:15	.	4.45	0.47	2.17	.	0.01	20.76	21.92	32.24	.
03SEP90:20:30	.	4.72	1.08	2.51	.	0.02	20.38	22.01	32.39	.
03SEP90:20:45	.	3.92	1.50	2.15	.	0.00	20.06	21.88	32.08	.
03SEP90:21:00	.	2.57	0.73	0.79	.	0.00	20.06	22.03	32.35	.
03SEP90:21:15	.	0.93	0.88	359.00	.	0.00	19.87	22.85	34.34	.
03SEP90:21:30	.	0.37	0.45	358.90	.	0.00	19.73	22.51	34.86	.
03SEP90:21:45	.	1.66	0.46	0.75	.	0.00	19.80	22.53	35.73	.
03SEP90:22:00	.	1.05	0.68	0.21	.	0.00	19.62	22.66	37.16	.
03SEP90:22:15	.	0.98	0.48	0.28	.	0.00	20.62	22.74	37.31	.
03SEP90:22:30	.	0.78	0.51	359.60	.	0.00	20.66	22.81	37.12	.
03SEP90:22:45	.	0.91	0.54	359.00	.	0.00	21.08	23.09	37.89	.
03SEP90:23:00	.	1.64	0.51	359.90	.	0.00	21.92	23.11	38.64	.
03SEP90:23:15	.	1.67	0.51	1.40	.	0.00	22.05	23.06	38.55	.
03SEP90:23:30	27.59	1.22	0.49	2.99	67.08	0.00	21.02	23.05	38.81	.

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUO (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF MULK TANK (Deg. C)	TRACK OF MULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
03SEP90:23:45	26.11	0.78	0.52	2.99	65.81	0.00	21.23	23.28	39.27	.
04SEP90:00:00	26.09	.	0.49	3.35	64.34	0.00	21.46	23.23	38.95	.
04SEP90:00:15	26.19	.	0.49	4.71	64.28	0.00	21.49	23.23	38.25	.
04SEP90:00:30	26.30	.	0.50	4.35	64.40	0.00	21.21	23.02	38.19	.
04SEP90:00:45	26.29	.	0.53	3.95	63.99	0.00	21.01	23.00	38.32	.
04SEP90:01:00	26.12	.	0.55	3.36	64.88	0.00	21.23	23.08	37.75	.
04SEP90:01:15	25.86	.	0.56	3.38	68.30	0.00	21.39	23.09	37.56	.
04SEP90:01:30	25.92	.	1.62	1.41	69.26	0.00	21.38	23.02	37.09	.
04SEP90:01:45	26.16	.	3.15	359.90	67.92	0.00	21.19	23.09	37.04	.
04SEP90:02:00	25.95	2.11	4.35	359.70	68.16	0.00	21.04	23.14	36.61	.
04SEP90:02:15	25.25	2.92	4.00	359.70	70.90	0.00	21.29	23.12	36.44	.
04SEP90:02:30	24.89	2.92	4.15	359.60	74.10	0.00	21.56	23.26	36.63	.
04SEP90:02:45	24.88	3.75	4.96	359.00	74.40	0.00	21.92	23.21	36.70	.
04SEP90:03:00	24.77	2.50	3.18	359.20	74.50	0.00	21.83	23.30	36.44	.
04SEP90:03:15	24.90	1.89	2.29	359.10	74.50	0.00	21.68	23.42	36.50	.
04SEP90:03:30	25.06	1.27	0.75	359.20	74.10	0.00	21.39	23.40	36.21	.
04SEP90:03:45	24.94	1.08	0.93	359.20	74.70	0.00	21.41	23.26	35.92	.
04SEP90:04:00	24.68	0.96	1.52	359.30	74.40	0.00	21.39	23.23	35.66	.
04SEP90:04:15	24.38	0.98	1.82	359.40	75.80	0.00	21.41	23.20	35.48	.
04SEP90:04:30	24.81	0.96	1.83	359.30	76.90	0.00	21.64	23.26	35.77	.
04SEP90:04:45	24.86	0.83	2.60	359.30	77.60	0.00	21.55	23.37	35.78	.
04SEP90:05:00	25.18	0.64	1.65	359.30	76.20	0.00	21.51	23.23	35.17	.
04SEP90:05:15	25.23	0.64	1.65	359.30	74.60	0.00	21.52	23.03	34.82	.
04SEP90:05:30	25.18	0.39	1.79	359.40	72.90	0.00	21.58	23.03	34.84	.
04SEP90:05:45	25.17	0.32	1.61	359.40	71.90	0.00	21.82	23.00	34.30	.
04SEP90:06:00	24.90	0.44	2.19	359.40	72.80	0.00	21.67	22.88	34.00	.
04SEP90:06:15	24.66	0.29	2.37	359.50	73.30	0.00	21.80	22.74	33.87	.
04SEP90:06:30	24.59	0.39	0.95	359.50	73.20	0.00	21.90	22.70	33.50	.
04SEP90:06:45	24.74	0.27	0.46	359.40	71.70	0.00	22.12	22.87	33.74	.
04SEP90:07:00	24.60	0.29	1.19	359.50	71.80	0.00	22.23	23.08	34.42	.
04SEP90:07:15	24.48	0.29	0.81	359.40	72.20	0.00	22.12	22.93	34.98	.
04SEP90:07:30	24.39	0.27	0.46	359.40	72.60	0.00	22.27	23.03	36.02	.
04SEP90:07:45	24.21	0.27	0.47	359.40	73.50	0.00	23.56	23.93	38.11	.
04SEP90:08:00	24.04	0.34	0.45	359.40	74.70	0.00	22.77	23.89	39.87	.
04SEP90:08:15	23.64	1.10	0.45	359.40	77.20	0.00	23.51	24.17	41.89	.
04SEP90:08:30	23.79	4.29	0.45	359.40	77.80	0.00	24.66	24.73	44.09	.
04SEP90:08:45	23.78	16.44	0.45	359.40	79.30	0.00	25.60	25.21	46.25	.
04SEP90:09:00	24.07	28.12	0.45	359.40	79.60	0.00	26.63	25.44	48.49	.
04SEP90:09:15	24.52	28.56	0.45	359.40	78.90	0.00	25.50	24.85	49.49	.
04SEP90:09:30	24.62	34.05	0.45	359.40	79.40	0.00	26.15	25.44	50.64	.
04SEP90:09:45	25.54	72.90	0.45	359.40	78.30	0.00	26.85	25.61	50.96	.
04SEP90:10:00	26.76	79.30	0.45	359.40	75.50	0.00	25.51	26.02	50.97	.
04SEP90:10:15	27.34	79.30	0.45	359.30	72.10	0.00	25.30	25.15	50.44	.
04SEP90:10:30	28.85	104.60	0.45	359.30	68.41	0.00	26.35	25.80	51.17	.
04SEP90:10:45	30.48	105.20	0.45	359.30	63.33	0.00	26.06	26.10	50.49	.
04SEP90:11:00	30.80	104.90	0.45	359.30	60.37	0.00	26.91	26.82	50.42	.
04SEP90:11:15	30.81	108.00	0.45	359.30	59.27	0.00	27.30	27.09	50.96	.
04SEP90:11:30	30.02	109.60	0.48	359.30	58.26	0.00	27.71	26.88	49.48	.
04SEP90:11:45	31.03	111.60	0.52	359.40	56.50	0.00	28.52	27.71	47.47	.
04SEP90:12:00	31.59	113.00	0.59	359.40	56.28	0.00	29.05	28.47	47.47	.

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M <sup>2</sup> )	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF MULK TANK (Deg. C)	TRACK OF MULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
04SEP90:12:15	32.09	114.60	0.47	359.30	54.51	0.00	29.44	28.41	45.63	-
04SEP90:12:30	31.88	113.00	0.60	359.40	54.57	0.00	30.63	28.57	44.46	-
04SEP90:12:45	31.75	155.80	1.20	359.30	54.43	0.00	30.80	28.55	42.86	-
04SEP90:13:00	32.42	164.00	1.62	359.40	53.86	0.00	31.01	28.83	41.75	-
04SEP90:13:15	30.90	961.00	0.86	169.30	51.02	0.03	31.07	28.69	40.17	-
04SEP90:13:30	31.02	495.00	0.79	147.00	50.87	0.00	31.36	28.78	39.35	-
04SEP90:13:45	30.75	326.90	1.56	118.60	50.70	0.00	31.69	29.05	39.13	-
04SEP90:14:00	30.42	452.20	2.04	164.90	50.51	0.00	32.25	29.83	40.51	-
04SEP90:14:15	30.62	357.90	2.33	150.30	49.54	0.00	32.36	30.26	41.85	-
04SEP90:14:30	30.56	326.80	2.13	160.60	48.97	0.04	32.40	30.41	42.97	-
04SEP90:14:45	30.44	277.10	1.68	198.40	49.67	0.00	32.50	30.31	43.37	-
04SEP90:15:00	30.23	262.70	1.12	202.60	49.80	0.00	32.61	30.32	43.00	-
04SEP90:15:15	30.16	229.90	3.56	185.30	49.74	0.00	32.61	30.30	42.70	-
04SEP90:15:30	29.70	266.90	4.37	164.40	51.02	0.00	32.58	29.60	42.38	-
04SEP90:15:45	29.29	291.00	4.67	161.30	51.50	0.00	32.95	30.28	42.78	-
04SEP90:16:00	28.94	346.50	4.04	164.90	51.91	0.00	33.01	30.47	42.41	-
04SEP90:16:15	29.21	446.20	3.59	168.40	52.52	0.00	33.15	30.56	41.93	-
04SEP90:16:30	29.79	514.50	3.11	177.50	50.39	0.00	33.56	31.07	42.13	-
04SEP90:16:45	29.98	518.80	2.77	177.70	50.19	0.00	33.50	31.13	41.25	-
04SEP90:17:00	30.03	408.80	2.44	183.80	51.03	0.00	33.16	31.07	39.75	-
04SEP90:17:15	30.13	408.80	2.51	185.10	50.75	0.00	33.32	30.71	38.80	-
04SEP90:17:30	30.50	378.00	1.91	233.50	51.05	0.00	33.54	30.82	37.97	-
04SEP90:17:45	30.55	456.80	1.65	226.50	49.64	0.00	33.46	31.03	37.39	-
04SEP90:18:00	30.63	394.50	1.43	251.10	49.54	0.00	33.28	30.79	36.22	-
04SEP90:18:15	30.72	375.50	1.37	262.80	48.67	0.00	33.19	30.62	35.06	-
04SEP90:18:30	30.78	390.20	1.32	248.20	47.26	0.00	33.05	30.57	34.01	-
04SEP90:18:45	31.20	329.40	1.19	227.60	44.86	0.00	32.80	30.38	32.88	-
04SEP90:19:00	31.20	211.00	0.96	260.30	43.98	0.00	32.57	30.24	31.83	-
04SEP90:19:15	30.92	191.90	0.80	222.40	42.84	0.00	32.40	30.10	31.30	-
04SEP90:19:30	31.10	172.50	0.43	230.30	41.79	0.00	32.23	29.95	30.81	-
04SEP90:19:45	31.01	146.90	0.61	220.50	41.61	0.00	32.10	29.88	30.51	-
04SEP90:20:00	30.91	103.10	0.54	228.10	41.47	0.00	31.88	29.74	30.25	-
04SEP90:20:15	30.72	65.80	0.36	138.90	41.92	0.00	31.69	29.60	29.92	-
04SEP90:20:30	30.52	34.40	0.41	97.90	42.98	0.00	31.46	29.46	29.55	-
04SEP90:20:45	30.35	13.77	0.46	134.30	43.21	0.00	31.28	29.33	29.43	-
04SEP90:21:00	30.08	6.10	1.32	107.80	45.52	0.00	31.06	29.20	29.09	-
04SEP90:21:15	29.95	1.45	0.60	98.60	46.03	0.00	30.79	29.01	28.85	-
04SEP90:21:30	29.90	0.39	0.44	110.00	46.23	0.00	30.58	28.86	28.67	-
04SEP90:21:45	29.76	0.12	0.44	111.90	47.08	0.00	30.37	28.69	28.30	-
04SEP90:22:00	29.63	0.42	0.45	95.90	48.04	0.00	30.16	28.55	28.01	-
04SEP90:22:15	29.47	0.52	0.45	97.50	49.02	0.00	29.91	28.35	27.70	-
04SEP90:22:30	29.38	0.56	0.45	86.90	48.92	0.00	29.70	28.24	27.45	-
04SEP90:22:45	29.32	0.49	0.45	91.70	49.01	0.00	29.43	28.10	27.35	-
04SEP90:23:00	29.25	0.39	0.45	84.30	49.38	0.00	29.40	28.01	27.37	-
04SEP90:23:15	-	-	-	27.62	-	1.79	29.27	27.88	27.49	-
04SEP90:23:30	-	-	-	-	-	-	29.11	27.82	27.42	-
04SEP90:23:45	28.95	0.54	1.47	94.50	53.83	0.00	28.90	27.66	27.40	-
05SEP90:00:00	28.88	0.39	1.29	112.20	52.78	0.00	28.73	27.55	27.56	-
05SEP90:00:15	28.68	0.49	1.65	122.20	53.05	0.00	28.63	27.45	27.66	-
05SEP90:00:30	28.41	0.32	1.48	123.30	54.42	0.00	28.50	27.37	27.53	-

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M <sup>2</sup> )	WIND MAGNITUD (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
05SEP90:00:45	28.62	0.47	1.45	119.90	52.80	0.00	28.37	27.34	27.48	.
05SEP90:01:00	28.21	0.34	1.96	99.50	55.19	0.00	28.23	27.25	27.50	.
05SEP90:01:15	28.41	0.42	1.50	103.40	56.45	0.00	28.08	27.15	27.33	.
05SEP90:01:30	28.40	0.39	1.74	94.20	54.97	0.00	27.91	27.05	27.13	.
05SEP90:01:45	28.45	0.39	1.71	86.00	54.74	0.00	27.71	26.94	26.92	.
05SEP90:02:00	28.12	0.47	2.20	78.50	59.63	0.00	27.49	26.77	26.59	.
05SEP90:02:15	27.86	0.44	2.12	77.70	63.58	0.00	27.31	26.66	26.44	.
05SEP90:02:30	27.78	0.44	2.18	97.20	66.46	0.00	27.21	26.58	26.40	.
05SEP90:02:45	28.00	0.39	2.06	103.60	63.16	0.00	27.12	26.48	26.42	.
05SEP90:03:00	27.87	0.34	2.18	104.40	62.44	0.00	27.05	26.39	26.54	.
05SEP90:03:15	27.80	0.44	1.90	117.80	61.70	0.00	26.92	26.29	26.55	.
05SEP90:03:30	27.60	0.29	2.24	119.70	61.78	0.00	26.76	26.17	26.42	.
05SEP90:03:45	27.36	2.06	2.74	126.60	62.13	0.00	26.61	26.04	26.23	.
05SEP90:04:00	27.13	0.88	2.59	135.70	62.54	0.00	26.51	25.94	26.20	.
05SEP90:04:15	26.87	1.05	2.76	124.10	63.39	0.00	26.38	25.86	26.07	.
05SEP90:04:30	26.73	0.98	2.64	125.70	64.02	0.00	26.21	25.74	25.72	.
05SEP90:04:45	26.55	0.98	2.65	111.10	64.72	0.00	26.05	25.63	25.52	.
05SEP90:05:00	26.47	0.86	2.43	95.30	65.41	0.00	25.87	25.48	25.43	.
05SEP90:05:15	26.16	0.96	2.78	92.30	68.29	0.00	25.76	25.37	25.46	.
05SEP90:05:30	26.03	0.74	2.56	90.60	70.30	0.00	25.69	25.30	25.58	.
05SEP90:05:45	26.07	0.69	2.48	92.60	70.60	0.00	25.56	25.20	25.76	.
05SEP90:06:00	26.16	0.52	2.34	93.90	69.89	0.00	25.45	25.09	25.66	.
05SEP90:06:15	26.22	0.71	2.71	86.00	69.81	0.00	25.37	25.06	25.40	.
05SEP90:06:30	26.05	0.61	2.70	89.90	69.92	0.00	25.08	24.90	25.09	.
05SEP90:06:45	25.98	0.12	2.93	82.30	70.00	0.00	25.11	24.86	25.26	.
05SEP90:07:00	25.81	.	2.26	83.10	70.30	0.00	25.17	25.01	25.49	.
05SEP90:07:15	25.86	0.42	2.50	79.80	70.20	0.00	25.25	25.14	26.20	.
05SEP90:07:30	26.00	0.56	2.68	72.10	69.43	0.00	25.29	25.17	27.12	.
05SEP90:07:45	25.90	1.01	3.00	74.30	70.10	0.00	25.24	25.20	27.44	.
05SEP90:08:00	26.02	0.74	1.77	91.50	69.38	0.00	25.19	25.18	27.75	.
05SEP90:08:15	25.98	4.59	2.17	90.10	69.41	0.00	25.38	25.34	28.72	.
05SEP90:08:30	26.15	.	2.01	71.50	68.37	0.00	25.70	25.74	29.95	.
05SEP90:08:45	26.06	9.58	2.29	86.40	68.20	0.00	25.76	25.69	31.23	.
05SEP90:09:00	26.06	23.85	2.63	93.50	68.87	0.00	26.34	26.45	33.26	.
05SEP90:09:15	26.24	46.28	2.05	76.90	69.00	0.00	26.34	26.27	34.25	.
05SEP90:09:30	26.20	77.30	2.41	73.50	69.64	0.00	26.25	25.93	34.20	.
05SEP90:09:45	26.30	72.90	3.01	64.93	69.89	0.00	26.71	26.42	34.75	.
05SEP90:10:00	26.44	69.28	2.87	103.30	69.48	0.00	27.12	26.68	35.18	.
05SEP90:10:15	26.54	94.70	1.40	73.90	70.20	0.07	27.53	27.33	35.09	.
05SEP90:10:30	.	.	.	.	.	.	27.38	26.85	34.60	.
05SEP90:10:45	.	.	.	.	.	.	27.50	26.75	34.36	.
05SEP90:11:00	.	.	.	.	.	.	27.97	27.16	34.64	.
05SEP90:11:15	28.13	365.70	1.49	94.10	66.31	0.00	28.51	27.91	35.16	.
05SEP90:11:30	28.22	288.40	1.91	103.20	65.07	0.00	28.72	28.11	35.58	.
05SEP90:11:45	28.94	318.70	0.71	76.80	62.74	0.00	29.05	28.30	36.45	.
05SEP90:12:00	29.18	299.40	0.59	68.33	60.91	0.00	29.45	28.65	37.37	.
05SEP90:12:15	29.01	296.40	1.51	87.30	59.55	0.00	29.88	29.05	39.01	.
05SEP90:12:30	28.67	215.00	2.34	84.60	59.36	0.00	29.91	29.13	39.75	.
05SEP90:12:45	28.59	234.00	2.06	77.10	60.46	0.00	30.31	29.20	40.84	.
05SEP90:13:00	28.74	270.40	2.23	69.77	60.51	0.00	31.26	30.50	45.99	.

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M²)	WIND MAGNITUD (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND	BACKGROUND
									ROCK & SAND (Deg. C)	BUSHES & TREES (Deg. C)
05SEP90:13:15	29.17	316.20	1.47	85.10	59.03	0.00	31.70	30.72	49.60	.
05SEP90:13:30	30.01	361.30	0.60	21.75	54.85	0.00	31.69	30.99	49.21	.
05SEP90:13:45	29.52	398.10	2.38	99.10	53.67	0.00	32.78	32.48	52.39	.
05SEP90:14:00	29.72	421.70	2.27	92.90	53.44	0.00	32.12	31.39	51.78	.
05SEP90:14:15	29.39	457.10	3.39	111.90	52.54	0.00	32.86	31.75	52.77	.
05SEP90:14:30	29.90	636.50	3.10	97.80	51.27	0.00	32.65	31.12	52.97	.
05SEP90:14:45	30.28	573.10	2.75	95.70	47.94	0.00	33.48	31.56	53.27	.
05SEP90:15:00	30.98	898.00	3.16	103.90	43.81	0.00	33.57	31.13	52.16	.
05SEP90:15:15	32.19	.	0.93	74.60	39.21	0.00	34.22	32.20	51.77	.
05SEP90:15:30	32.05	876.00	1.48	91.50	38.68	0.00	33.75	31.69	50.14	.
05SEP90:15:45	32.54	.	1.92	145.00	37.29	0.00	34.75	32.30	49.69	.
05SEP90:16:00	32.14	964.00	3.50	138.70	36.88	0.00	35.72	33.36	49.57	.
05SEP90:16:15	32.05	881.00	2.77	148.30	36.69	0.00	35.19	32.28	48.00	.
05SEP90:16:30	32.69	858.00	1.17	129.00	36.24	0.00	35.28	32.20	46.57	.
05SEP90:16:45	32.46	636.90	1.31	154.70	36.05	0.00	35.77	32.74	46.22	.
05SEP90:17:00	32.85	685.80	1.67	29.32	35.87	0.00	35.70	32.33	43.34	.
05SEP90:17:15	33.14	731.00	1.15	10.48	35.43	0.00	36.84	33.59	44.07	.
05SEP90:17:30	32.87	695.50	1.52	131.70	35.06	0.00	36.95	33.75	43.58	.
05SEP90:17:45	33.20	648.40	0.55	124.80	34.56	0.00	36.98	33.59	41.47	.
05SEP90:18:00	33.84	601.10	0.29	183.00	33.86	0.00	36.56	33.05	39.59	.
05SEP90:18:15	32.96	554.60	1.24	220.70	34.23	0.00	36.63	33.12	38.03	.
05SEP90:18:30	33.16	508.90	0.69	226.60	34.40	0.00	36.35	32.98	36.16	.
05SEP90:18:45	33.67	467.20	0.93	205.60	33.98	0.00	36.14	32.63	34.70	.
05SEP90:19:00	33.25	295.20	1.82	287.40	34.46	0.00	36.06	32.81	33.68	.
05SEP90:19:15	33.18	425.70	1.22	261.30	34.23	0.00	35.84	32.69	32.89	.
05SEP90:19:30	33.35	351.50	1.50	296.20	33.97	0.00	35.49	32.54	32.07	.
05SEP90:19:45	32.83	203.30	2.30	171.70	34.53	0.00	35.11	32.33	31.41	.
05SEP90:20:00	33.05	121.80	1.76	272.00	34.10	0.00	34.79	32.16	30.94	.
05SEP90:20:15	32.99	128.10	1.81	269.60	33.95	0.00	34.47	31.94	30.53	.
05SEP90:20:30	32.66	56.01	0.83	282.30	34.10	0.00	34.24	31.74	30.07	.
05SEP90:20:45	32.44	21.07	0.67	239.40	34.47	0.00	34.00	31.58	29.68	.
05SEP90:21:00	32.24	7.10	1.87	301.50	34.65	0.00	33.83	31.53	29.57	.
05SEP90:21:15	32.02	1.57	2.52	307.70	34.69	0.00	33.53	31.35	29.27	.
05SEP90:21:30	31.47	0.39	3.73	336.70	38.13	0.00	33.26	31.19	28.81	.
05SEP90:21:45	31.33	0.44	3.73	328.90	39.18	0.00	32.98	31.02	28.50	.
05SEP90:22:00	31.13	0.34	3.08	338.30	40.09	0.00	32.72	30.82	28.06	.
05SEP90:22:15	30.91	0.42	2.94	340.40	40.80	0.00	32.46	30.65	27.83	.
05SEP90:22:30	30.77	0.51	2.87	342.60	41.14	0.00	32.24	30.47	27.64	.
05SEP90:22:45	30.56	0.25	2.59	341.70	41.76	0.00	32.03	30.32	27.50	.
05SEP90:23:00	30.35	0.44	0.25	357.30	42.77	0.00	31.85	30.23	27.37	.
05SEP90:23:15	30.50	0.37	0.22	192.90	42.47	0.00	31.57	30.05	27.19	.
05SEP90:23:30	30.60	0.47	0.32	216.70	42.04	0.00	31.31	29.87	26.93	.
05SEP90:23:45	30.25	0.54	0.44	182.50	43.11	0.00	31.09	29.73	26.80	.
06SEP90:00:00	30.09	0.39	0.42	123.40	43.35	0.00	30.84	29.54	26.55	.
06SEP90:00:15	29.66	0.49	0.44	128.00	46.84	0.00	30.63	29.39	26.37	.
06SEP90:00:30	29.52	0.49	0.41	117.40	49.03	0.00	30.39	29.23	26.25	.
06SEP90:00:45	29.18	0.54	1.30	134.20	51.10	0.00	30.09	29.03	25.98	.
06SEP90:01:00	29.14	0.32	2.52	152.30	51.62	0.00	29.85	28.85	25.75	.
06SEP90:01:15	29.18	0.34	3.14	165.20	50.90	0.00	29.74	28.72	25.58	.
06SEP90:01:30	29.04	1.42	3.11	167.60	51.14	0.00	29.58	28.62	25.55	.

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUD (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
06SEP90:01:45	28.78	0.42	2.67	152.70	52.01	0.00	29.31	28.42	25.31	.
06SEP90:02:00	28.59	0.49	2.41	146.90	52.99	0.00	29.05	28.20	25.27	.
06SEP90:02:15	28.49	0.34	2.37	146.00	54.38	0.00	28.81	28.00	25.11	.
06SEP90:02:30	28.38	0.39	1.62	138.30	55.65	0.00	28.68	27.87	24.98	.
06SEP90:02:45	28.45	0.42	1.02	144.40	55.88	0.00	28.43	27.71	24.97	.
06SEP90:03:00	28.09	0.54	1.01	82.50	58.47	0.00	28.27	27.57	24.80	.
06SEP90:03:15	28.20	0.44	0.97	98.60	58.32	0.00	28.05	27.41	24.73	.
06SEP90:03:30	27.59	0.47	2.05	95.20	61.28	0.00	27.91	27.30	24.59	.
06SEP90:03:45	27.75	0.52	0.65	71.50	61.60	0.00	27.67	27.09	24.49	.
06SEP90:04:00	27.95	0.71	0.75	119.70	61.00	0.00	27.56	27.00	24.35	.
06SEP90:04:15	27.76	0.91	1.00	112.70	61.56	0.00	27.30	26.80	24.34	.
06SEP90:04:30	27.50	0.69	0.92	62.01	62.68	0.00	27.16	26.69	24.20	.
06SEP90:04:45	27.50	0.66	0.90	95.10	62.63	0.00	27.00	26.56	24.14	.
06SEP90:05:00	27.12	1.13	2.06	89.20	64.07	0.00	26.85	26.48	24.03	.
06SEP90:05:15	27.21	0.52	1.13	71.50	64.27	0.00	26.69	26.33	23.86	.
06SEP90:05:30	27.10	0.52	2.10	78.60	64.80	0.00	26.56	26.19	23.85	.
06SEP90:05:45	27.03	0.49	2.44	91.00	65.14	0.00	26.48	26.16	23.82	.
06SEP90:06:00	26.80	1.69	2.23	93.00	66.07	0.00	26.33	26.05	23.96	.
06SEP90:06:15	26.90	0.79	1.33	91.60	65.87	0.00	26.09	25.82	23.73	.
06SEP90:06:30	26.80	0.86	0.79	85.70	65.94	0.00	26.03	25.76	23.85	.
06SEP90:06:45	26.32	0.96	1.93	90.30	68.80	0.00	26.33	26.03	24.42	.
06SEP90:07:00	26.68	0.83	0.80	52.63	67.33	0.00	26.70	26.30	25.44	.
06SEP90:07:15	26.88	0.74	0.45	98.60	66.33	0.00	27.02	26.80	26.71	.
06SEP90:07:30	26.49	0.86	0.61	103.90	68.09	0.00	26.88	26.72	28.12	.
06SEP90:07:45	25.61	1.89	1.77	88.90	76.20	0.00	27.20	27.05	29.80	.
06SEP90:08:00	25.88	0.93	0.96	72.10	78.40	0.00	27.20	27.32	31.59	.
06SEP90:08:15	26.65	2.94	0.94	19.58	70.80	0.00	27.81	27.14	33.08	.
06SEP90:08:30	26.42	10.84	1.22	356.00	70.70	0.00	28.16	27.09	34.70	.
06SEP90:08:45	26.35	21.44	1.26	1.72	71.00	0.00	28.28	27.64	36.39	.
06SEP90:09:00	26.86	70.40	1.26	5.26	68.23	0.00	28.21	27.94	38.13	.
06SEP90:09:15	27.42	119.40	0.66	55.62	66.58	0.00	28.33	27.68	39.52	.
06SEP90:09:30	28.51	164.00	0.51	20.31	63.84	0.00	28.84	27.64	40.99	.
06SEP90:09:45	29.68	214.70	0.42	97.90	60.30	0.00	29.57	28.26	42.53	.
06SEP90:10:00	30.22	264.70	0.23	330.10	58.79	0.00	29.85	28.85	44.14	.
06SEP90:10:15	29.71	317.80	0.59	156.90	58.66	0.00	30.05	28.99	45.60	.
06SEP90:10:30	29.76	369.70	0.40	218.00	58.05	0.00	30.48	29.42	47.03	.
06SEP90:10:45	30.86	422.60	0.05	168.40	56.33	0.00	30.71	29.70	48.23	.
06SEP90:11:00	30.84	471.70	0.39	172.10	54.39	0.00	30.66	29.53	48.64	.
06SEP90:11:15	30.48	521.00	0.61	277.80	53.24	0.00	31.32	30.42	50.03	.
06SEP90:11:30	31.21	568.40	0.66	308.70	50.05	0.00	32.33	31.07	52.47	.
06SEP90:11:45	31.53	613.00	0.84	329.50	48.15	0.00	32.14	31.07	51.71	.
06SEP90:12:00	31.77	654.20	0.56	320.70	45.82	0.00	33.22	31.88	54.02	.
06SEP90:12:15	32.02	694.60	1.30	340.50	44.06	0.00	33.00	31.55	53.56	.
06SEP90:12:30	32.04	732.00	2.25	327.00	42.57	0.00	34.04	32.80	54.94	.
06SEP90:12:45	32.40	772.00	1.00	266.90	41.01	0.00	34.35	32.91	56.04	.
06SEP90:13:00	32.91	814.00	2.36	292.10	39.62	0.00	34.45	32.69	55.82	.
06SEP90:13:15	32.62	895.00	1.09	236.50	39.17	0.00	35.49	33.59	55.52	.
06SEP90:13:30	32.93	766.00	2.55	302.10	38.18	0.00	35.52	33.66	56.25	.
06SEP90:13:45	32.82	373.30	0.77	246.90	37.82	0.00	36.23	34.30	57.07	.
06SEP90:14:00	33.34	932.00	1.07	234.70	36.78	0.00	36.75	34.67	57.03	.

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M <sup>2</sup> )	WIND MAGNITUD (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
06SEP90:14:15	33.99	956.00	0.77	282.70	35.76	0.00	36.35	34.19	54.77	-
06SEP90:14:30	34.36	995.00	1.40	318.80	34.85	0.00	36.68	33.86	55.21	-
06SEP90:14:45	33.66	232.50	3.09	335.20	35.21	0.00	37.89	35.07	55.86	-
06SEP90:15:00	34.42	946.00	0.15	28.65	34.12	0.00	38.28	35.35	55.98	-
06SEP90:15:15	35.26	959.00	0.48	41.33	32.82	0.00	37.81	35.08	54.07	-
06SEP90:15:30	34.74	947.00	1.50	318.10	32.38	0.00	37.37	34.42	48.68	-
06SEP90:15:45	35.08	851.00	1.24	103.00	31.94	0.00	38.74	35.50	48.52	-
06SEP90:16:00	35.23	685.50	1.30	303.50	31.40	0.00	39.57	36.67	51.18	-
06SEP90:16:15	35.48	882.00	2.81	312.00	30.89	0.00	39.77	36.60	51.18	-
06SEP90:16:30	36.09	872.00	1.09	313.20	29.87	0.00	38.65	35.49	48.64	-
06SEP90:16:45	36.02	834.00	1.85	6.67	29.08	0.00	39.10	35.68	47.27	-
06SEP90:17:00	36.22	798.00	1.64	288.00	28.12	0.00	39.91	36.42	46.74	-
06SEP90:17:15	36.01	763.00	3.26	355.10	27.58	0.00	39.60	36.19	45.65	-
06SEP90:17:30	35.86	459.30	2.53	348.50	27.16	0.00	39.74	36.12	43.67	-
06SEP90:17:45	36.92	667.90	0.51	83.10	26.05	0.00	40.11	36.46	42.78	-
06SEP90:18:00	36.73	629.60	1.08	357.10	25.04	0.00	39.89	36.03	40.72	-
06SEP90:18:15	36.28	567.00	2.66	332.30	25.02	0.00	39.78	35.96	38.98	-
06SEP90:18:30	36.24	515.90	2.94	282.80	24.52	0.00	39.58	35.92	37.31	-
06SEP90:18:45	36.88	462.30	1.65	248.10	24.02	0.00	39.32	35.83	35.74	-
06SEP90:19:00	36.76	396.50	1.19	255.80	23.22	0.00	38.87	35.59	34.45	-
06SEP90:19:15	36.26	351.50	2.84	321.00	23.96	0.00	38.48	35.54	33.60	-
06SEP90:19:30	36.49	280.90	0.57	331.10	23.58	0.00	38.09	35.39	32.96	-
06SEP90:19:45	36.35	212.60	2.89	333.60	23.84	0.00	37.71	35.18	32.28	-
06SEP90:20:00	36.12	159.60	3.36	316.90	23.72	0.00	37.35	34.97	31.82	-
06SEP90:20:15	35.94	138.50	3.54	296.40	23.73	0.00	37.03	34.75	31.38	-
06SEP90:20:30	35.63	87.80	2.68	320.80	23.67	0.00	36.73	34.59	30.96	-
06SEP90:20:45	35.61	35.67	3.96	306.60	22.34	0.00	36.44	34.39	30.44	-
06SEP90:21:00	35.06	8.43	4.53	310.20	22.27	0.00	36.21	34.17	29.93	-
06SEP90:21:15	34.73	1.22	4.44	316.70	22.38	0.00	35.91	34.00	29.59	-
06SEP90:21:30	34.29	0.49	3.63	313.70	23.08	0.00	35.63	33.83	29.31	-
06SEP90:21:45	34.12	0.47	2.61	306.60	23.88	0.00	35.19	33.57	29.05	-
06SEP90:22:00	33.99	0.39	2.78	312.90	23.97	0.00	34.91	33.30	28.67	-
06SEP90:22:15	33.83	0.29	2.86	310.10	24.35	0.00	34.69	33.10	28.26	-
06SEP90:22:30	33.53	0.32	2.38	319.30	25.06	0.00	34.38	32.90	28.03	-
06SEP90:22:45	33.21	0.39	1.53	330.20	26.15	0.00	34.16	32.73	27.80	-
06SEP90:23:00	33.18	0.34	1.77	347.60	25.74	0.00	33.88	32.52	27.64	-
06SEP90:23:15	33.03	0.69	2.01	347.80	25.79	0.00	33.61	32.29	27.21	-
06SEP90:23:30	32.83	0.54	2.07	344.30	26.30	0.00	33.36	32.06	27.05	-
06SEP90:23:45	32.61	0.47	1.42	5.39	26.80	0.00	33.14	31.91	26.79	-
07SEP90:00:00	32.78	0.39	1.28	18.37	27.05	0.00	32.92	31.75	26.63	-
07SEP90:00:15	32.83	0.44	0.59	35.79	27.20	0.00	32.63	31.55	26.33	-
07SEP90:00:30	32.72	0.37	0.45	41.55	27.77	0.00	32.34	31.31	26.10	-
07SEP90:00:45	32.51	0.51	0.38	41.41	28.62	0.00	32.11	31.09	25.91	-
07SEP90:01:00	32.47	0.42	1.31	27.50	28.87	0.00	31.90	30.94	25.76	-
07SEP90:01:15	31.88	0.42	1.61	27.83	30.46	0.00	31.37	30.54	25.44	-
07SEP90:01:30	31.17	0.51	0.74	105.10	33.21	0.00	31.40	30.47	25.38	-
07SEP90:01:45	29.95	0.66	1.95	129.60	39.76	0.00	31.26	30.41	25.31	-
07SEP90:02:00	30.58	0.29	1.72	161.00	37.88	0.00	30.94	30.21	25.25	-
07SEP90:02:15	31.26	0.49	0.78	166.50	35.75	0.00	30.58	29.86	24.92	-
07SEP90:02:30	31.40	0.49	0.21	310.20	34.81	0.00	30.33	29.62	24.78	-

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUD (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
07SEP90:02:45	31.31	0.64	0.44	339.70	34.79	0.00	30.13	29.44	24.63	.
07SEP90:03:00	31.26	0.54	0.43	340.70	34.43	0.00	29.92	29.29	24.46	.
07SEP90:03:15	31.25	0.49	0.44	339.10	34.66	0.00	29.76	29.18	24.41	.
07SEP90:03:30	30.93	0.39	0.78	351.90	35.23	0.00	29.59	29.08	24.41	.
07SEP90:03:45	30.88	0.56	1.72	2.14	35.48	0.00	29.32	28.89	24.23	.
07SEP90:04:00	30.77	1.20	0.54	73.40	36.73	0.00	29.15	28.73	24.12	.
07SEP90:04:15	30.84	0.98	1.42	27.06	37.11	0.00	28.97	28.58	23.94	.
07SEP90:04:30	30.42	0.93	1.75	22.11	37.86	0.00	28.85	28.54	23.94	.
07SEP90:04:45	.	.	.	.	.	.	28.65	28.38	23.88	.
07SEP90:05:00	.	.	.	.	.	.	28.57	28.36	24.01	.
07SEP90:05:15	29.97	1.10	0.73	74.20	37.95	0.00	28.32	28.11	23.79	.
07SEP90:05:30	29.36	1.03	0.69	91.70	40.20	0.00	28.12	27.96	23.66	.
07SEP90:05:45	29.70	0.91	1.46	28.61	39.20	0.00	27.98	27.83	23.60	.
07SEP90:06:00	29.57	0.93	1.14	34.41	39.24	0.00	27.93	27.85	23.53	.
07SEP90:06:15	29.82	0.61	1.05	47.78	38.31	0.00	27.83	27.80	23.52	.
07SEP90:06:30	30.03	0.54	1.25	45.86	37.65	0.00	27.71	27.73	23.66	.
07SEP90:06:45	30.03	0.61	0.76	55.92	37.62	0.00	28.05	27.96	24.21	.
07SEP90:07:00	30.15	0.66	0.66	47.98	37.33	0.00	28.16	28.05	24.91	25.55
07SEP90:07:15	29.54	0.88	0.36	92.90	38.83	0.00	28.31	28.34	25.97	26.59
07SEP90:07:30	28.21	0.71	0.83	99.80	41.24	0.00	28.50	28.55	27.30	27.37
07SEP90:07:45	29.50	0.69	0.69	76.10	39.17	0.00	28.76	28.94	28.97	28.53
07SEP90:08:00	29.98	0.86	1.05	69.66	38.34	0.00	28.53	28.89	30.42	29.51
07SEP90:08:15	29.78	2.58	1.04	59.32	38.88	0.00	29.80	29.33	32.32	30.62
07SEP90:08:30	29.60	9.45	1.06	52.55	39.16	0.00	30.23	29.55	34.19	31.55
07SEP90:08:45	29.31	20.16	1.17	27.93	39.74	0.00	30.43	30.18	36.19	31.94
07SEP90:09:00	29.53	75.30	0.42	81.40	39.71	0.00	29.69	29.63	37.25	31.87
07SEP90:09:15	30.02	126.30	1.19	21.32	39.35	0.00	30.21	30.18	38.81	32.47
07SEP90:09:30	30.20	174.30	1.78	14.37	39.93	0.00	31.15	30.33	40.32	33.24
07SEP90:09:45	30.62	225.40	1.91	9.50	39.75	0.00	31.70	30.85	42.39	34.35
07SEP90:10:00	31.11	277.50	1.64	6.33	39.58	0.00	31.91	31.25	43.87	35.03
07SEP90:10:15	31.77	330.60	0.99	358.60	39.06	0.00	32.51	31.77	45.96	35.74
07SEP90:10:30	31.91	383.00	0.98	309.70	38.69	0.00	32.47	32.41	47.40	36.29
07SEP90:10:45	32.34	435.00	1.10	282.20	37.70	0.00	32.38	32.16	47.98	36.10
07SEP90:11:00	32.99	486.10	1.23	266.10	36.48	0.00	32.78	32.02	49.29	37.19
07SEP90:11:15	33.30	534.80	1.39	273.40	36.05	0.00	32.86	32.02	49.88	37.47
07SEP90:11:30	33.70	583.10	1.48	270.40	35.20	0.00	34.61	33.81	52.43	38.41
07SEP90:11:45	34.36	630.00	0.86	235.50	33.87	0.00	34.13	33.57	53.18	38.47
07SEP90:12:00	34.82	673.70	0.77	293.50	32.48	0.00	34.36	33.89	52.61	38.92
07SEP90:12:15	35.20	713.00	0.53	254.30	30.73	0.00	35.19	34.85	53.72	38.49
07SEP90:12:30	35.44	746.00	2.81	345.90	29.54	0.00	35.80	35.17	54.82	39.31
07SEP90:12:45	36.05	784.00	0.72	91.10	27.97	0.00	35.77	34.71	54.37	39.43
07SEP90:13:00	36.91	815.00	0.76	63.62	26.15	0.00	36.58	36.14	56.49	.
07SEP90:13:15	36.21	843.00	1.58	323.40	25.37	0.00	36.78	35.75	56.87	.
07SEP90:13:30	36.36	857.00	1.84	330.50	24.80	0.00	36.86	35.25	56.04	.
07SEP90:13:45	36.37	872.00	1.79	345.90	24.44	0.00	37.96	36.78	56.84	.
07SEP90:14:00	37.23	893.00	0.47	10.31	23.13	0.00	37.81	37.33	57.07	.
07SEP90:14:15	36.72	900.00	3.33	318.00	22.60	0.00	38.74	37.08	57.89	.
07SCP90:14:30	36.79	910.00	2.43	272.60	22.10	0.00	38.82	36.84	57.58	.
07SEP90:14:45	37.45	916.00	1.97	317.70	20.96	0.00	38.86	37.14	56.40	.
07SEP90:15:00	37.99	919.00	1.43	15.94	20.41	0.00	39.30	37.54	55.75	.

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M²*2)	WIND MAGNITUD (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
07SEP90:15:15	37.58	912.00	1.84	300.70	19.89	0.00	39.73	37.82	54.96	.
07SEP90:15:30	38.11	901.00	1.93	267.30	19.42	0.00	40.43	38.21	54.50	.
07SEP90:15:45	38.13	886.00	1.89	311.70	19.67	0.00	41.16	39.17	55.22	.
07SEP90:16:00	38.26	864.00	2.61	333.50	19.05	0.00	40.57	38.87	53.90	.
07SEP90:16:15	38.09	833.00	2.57	324.90	18.79	0.00	40.47	37.69	52.05	.
07SEP90:16:30	38.49	802.00	3.98	352.40	18.11	0.00	41.63	39.28	52.11	.
07SEP90:16:45	38.78	794.00	1.95	335.30	17.76	0.00	41.14	38.36	50.14	.
07SEP90:17:00	38.94	767.00	1.77	280.40	17.48	0.00	41.19	38.17	48.05	.
07SEP90:17:15	38.97	727.00	1.96	176.60	17.23	0.00	42.32	39.39	48.17	.
07SEP90:17:30	39.12	687.80	2.43	174.80	17.22	0.00	42.24	39.28	46.51	.
07SEP90:17:45	38.81	645.90	1.87	294.60	17.18	0.00	41.50	39.22	44.14	.
07SEP90:18:00	39.28	604.30	2.03	264.10	16.71	0.00	42.72	39.52	43.69	.
07SEP90:18:15	38.70	553.80	1.11	6.43	16.80	0.00	42.28	39.14	41.54	.
07SEP90:18:30	39.48	496.20	2.12	292.40	16.46	0.00	42.47	39.38	40.33	.
07SEP90:18:45	39.65	441.60	3.33	289.30	16.27	0.00	41.95	38.71	38.16	.
07SEP90:19:00	39.21	394.60	1.38	324.70	16.30	0.00	40.96	37.78	35.98	.
07SEP90:19:15	39.31	346.10	1.18	331.60	16.11	0.00	40.85	38.11	35.45	.
07SEP90:19:30	39.13	262.60	1.87	138.60	16.00	0.00	40.61	38.20	34.97	.
07SEP90:19:45	39.39	217.30	0.66	169.70	15.83	0.00	40.37	38.06	34.42	.
07SEP90:20:00	38.86	168.80	2.37	182.70	15.86	0.00	40.06	37.94	33.94	.
07SEP90:20:15	38.99	136.40	0.70	157.00	15.85	0.00	39.70	37.69	33.25	.
07SEP90:20:30	38.96	86.50	1.01	298.70	15.83	0.00	39.35	37.36	32.73	.
07SEP90:20:45	38.43	36.58	2.18	186.80	16.11	0.00	39.10	37.13	32.19	.
07SEP90:21:00	37.95	7.65	2.83	207.50	15.74	0.00	38.87	36.99	31.73	.
07SEP90:21:15	37.61	1.42	2.58	213.20	15.82	0.00	38.51	36.81	31.40	.
07SEP90:21:30	37.36	0.59	2.41	269.00	15.77	0.00	38.19	36.58	30.95	.
07SEP90:21:45	37.22	0.51	3.98	263.60	15.45	0.00	37.91	36.40	30.74	.
07SEP90:22:00	36.87	0.54	3.10	265.70	15.88	0.00	37.56	36.13	30.18	.
07SEP90:22:15	36.47	0.61	2.93	266.50	16.30	0.00	37.29	35.92	29.89	.
07SEP90:22:30	36.27	0.71	2.37	262.90	16.50	0.00	37.03	35.74	29.68	.
07SEP90:22:45	36.08	0.61	2.21	264.60	16.73	0.00	36.77	35.53	29.39	.
07SEP90:23:00	36.03	0.54	1.77	278.60	16.92	0.00	36.09	35.05	28.87	.
07SEP90:23:15	35.59	0.64	0.35	312.60	17.29	0.00	35.98	34.87	28.51	.
07SEP90:23:30	34.68	0.54	2.02	131.60	19.48	0.00	35.82	34.70	28.28	.
07SEP90:23:45	34.48	1.88	2.12	141.70	20.34	0.00	35.35	34.34	28.01	.
08SEP90:00:00	34.31	0.64	2.30	158.00	21.81	0.00	35.17	34.11	27.67	.
08SEP90:00:15	34.09	0.66	2.33	150.10	23.24	0.00	34.91	33.89	27.65	.
08SEP90:00:30	33.93	0.51	1.73	151.90	24.27	0.00	34.64	33.66	27.53	.
08SEP90:00:45	34.20	0.51	0.98	169.70	23.86	0.00	34.34	33.42	27.27	.
08SEP90:01:00	34.25	0.73	0.35	125.90	23.53	0.00	33.95	33.05	26.86	.
08SEP90:01:15	33.88	0.66	0.44	94.50	24.04	0.00	33.75	32.83	26.77	.
08SEP90:01:30	33.70	0.59	0.61	77.90	24.63	0.00	33.55	32.71	26.55	.
08SEP90:01:45	33.27	0.69	0.94	69.79	25.33	0.00	33.30	32.59	26.48	.
08SEP90:02:00	33.22	0.56	1.01	84.80	26.08	0.00	33.03	32.30	26.31	.
08SEP90:02:15	32.33	0.54	1.07	97.10	30.61	0.00	32.64	31.94	25.95	.
08SEP90:02:30	31.90	0.51	0.89	86.50	32.86	0.00	32.51	31.85	25.84	.
08SEP90:02:45	32.02	0.51	1.93	89.60	33.18	0.00	32.09	31.50	25.57	.
08SEP90:03:00	32.06	0.69	1.51	92.30	33.02	0.00	31.89	31.33	25.42	.
08SEP90:03:15	31.65	0.69	1.38	77.40	34.26	0.00	31.79	31.30	25.34	.
08SEP90:03:30	31.45	0.76	1.65	91.70	34.98	0.00	31.55	31.10	25.18	.

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M <sup>2</sup> )	WIND MAGNITUD (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
08SEP90:03:45	31.38	0.66	1.64	94.90	35.30	0.00	31.23	30.81	24.93	.
08SEP90:04:00	31.23	1.32	1.20	78.00	35.89	0.00	31.03	30.65	24.80	.
08SEP90:04:15	31.30	1.66	1.32	74.90	35.53	0.00	30.77	30.43	24.51	.
08SEP90:04:30	31.19	1.54	1.50	85.20	35.47	0.00	30.63	30.30	24.44	.
08SEP90:04:45	31.47	1.59	0.93	68.09	34.58	0.00	30.47	30.22	24.32	.
08SEP90:05:00	31.47	1.35	0.59	93.00	34.07	0.00	30.01	29.80	23.94	.
08SEP90:05:15	31.86	1.40	0.65	94.60	32.98	0.00	29.87	29.61	23.80	.
08SEP90:05:30	31.56	1.08	1.08	80.20	33.44	0.00	29.80	29.56	23.66	.
08SEP90:05:45	30.62	1.08	1.03	102.20	35.38	0.00	29.50	29.36	23.58	.
08SEP90:06:00	30.58	1.23	0.98	93.20	35.24	0.00	29.49	29.32	23.41	.
08SEP90:06:15	30.79	1.27	1.70	93.90	35.06	0.00	29.14	29.01	23.19	.
08SEP90:06:30	29.84	1.10	1.72	84.70	38.64	0.00	29.03	28.91	23.30	.
08SEP90:06:45	30.10	1.08	0.97	76.00	37.38	0.00	29.44	29.18	23.92	.
08SEP90:07:00	31.24	0.96	0.67	84.40	33.70	0.00	29.70	29.43	25.06	.
08SEP90:07:15	31.86	0.91	0.76	93.90	31.93	0.00	29.86	29.82	26.34	.
08SEP90:07:30	31.95	0.79	0.71	65.34	31.55	0.00	29.96	30.12	27.81	.
08SEP90:07:45	31.54	0.98	1.33	9.70	32.50	0.00	29.93	30.02	29.44	.
08SEP90:08:00	30.52	1.03	1.46	10.97	34.85	0.00	30.08	30.05	31.26	.
08SEP90:08:15	31.08	2.65	0.69	51.01	33.43	0.00	31.22	30.75	33.47	.
08SEP90:08:30	30.75	9.03	0.56	71.30	33.87	0.00	31.62	30.82	35.52	.
08SEP90:08:45	30.81	23.67	0.73	90.20	33.70	0.00	31.43	31.39	37.38	.
08SEP90:09:00	31.62	75.50	1.01	49.39	32.09	0.00	30.94	31.33	38.67	.
08SEP90:09:15	32.53	126.80	0.73	41.44	30.38	0.00	31.73	31.75	40.95	.
08SEP90:09:30	33.58	174.70	0.67	46.96	29.40	0.00	33.00	32.56	43.24	.
08SEP90:09:45	32.90	225.90	0.83	38.53	30.25	0.00	33.09	32.66	44.90	.
08SEP90:10:00	34.17	278.30	0.37	62.67	29.41	0.00	33.11	32.71	45.72	.
08SEP90:10:15	34.35	331.20	0.61	21.43	30.09	0.00	33.30	33.18	47.32	.
08SEP90:10:30	34.47	384.70	0.20	23.80	29.34	0.00	33.83	33.78	49.27	.
08SEP90:10:45	34.63	438.20	0.89	351.20	27.09	0.00	34.03	34.08	50.83	.
08SEP90:11:00	34.96	488.00	1.02	3.04	25.90	0.00	34.27	34.09	51.59	.
08SEP90:11:15	36.19	537.10	0.67	45.86	23.42	0.00	34.88	34.37	52.28	.
08SEP90:11:30	37.16	586.30	0.31	96.80	19.07	0.00	35.31	34.97	53.38	.
08SEP90:11:45	36.62	628.80	2.28	163.80	20.09	0.00	35.89	35.56	54.61	.
08SEP90:12:00	36.84	672.30	1.79	172.60	18.12	0.00	35.92	35.47	54.36	.
08SEP90:12:15	37.01	714.00	2.06	187.30	18.36	0.00	37.20	36.32	55.91	.
08SEP90:12:30	37.61	750.00	2.03	173.90	17.64	0.00	37.19	36.88	55.87	41.37
08SEP90:12:45	37.68	784.00	2.32	191.00	16.69	0.00	37.14	37.03	55.49	40.64
08SEP90:13:00	38.04	815.00	1.73	195.20	15.63	0.00	38.42	37.42	56.74	41.10
08SEP90:13:15	38.01	844.00	2.28	182.40	15.45	0.00	38.09	37.59	56.41	41.15
08SEP90:13:30	38.43	867.00	2.69	189.50	15.07	0.00	39.45	38.58	57.64	41.78
08SEP90:13:45	38.94	884.00	3.01	174.80	14.31	0.00	39.31	38.37	57.36	41.94
08SEP90:14:00	39.25	898.00	3.81	168.10	13.92	0.00	39.72	38.64	57.77	41.55
08SEP90:14:15	39.45	908.00	3.32	182.00	13.44	0.00	40.03	38.64	57.81	41.48
08SEP90:14:30	39.58	919.00	2.26	158.60	12.88	0.00	40.24	39.06	57.50	41.57
08SEP90:14:45	39.87	918.00	2.90	156.30	12.62	0.00	40.81	39.39	56.93	41.63
08SEP90:15:00	39.90	918.00	4.13	152.20	12.04	0.00	40.64	38.76	54.33	40.67
08SEP90:15:15	39.79	915.00	1.62	146.70	11.97	0.00	41.04	39.19	54.45	41.61
08SEP90:15:30	40.29	904.00	2.97	176.10	11.56	0.00	41.54	39.36	53.40	41.56
08SEP90:15:45	40.72	891.00	3.12	172.20	11.30	0.00	42.17	40.36	53.68	41.56
08SEP90:16:00	40.62	869.00	2.89	149.90	10.95	0.00	42.02	40.94	51.69	40.69

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M <sup>2</sup> )	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
08SEP90:16:15	40.96	846.00	3.17	140.30	10.61	0.00	42.35	41.12	51.38	40.56
08SEP90:16:30	41.24	826.00	2.65	152.30	10.12	0.00	43.11	41.35	51.14	40.56
08SEP90:16:45	41.17	802.00	2.64	120.30	9.89	0.00	42.32	40.55	49.53	39.70
08SEP90:17:00	41.33	770.00	3.22	196.10	9.64	0.00	42.70	40.91	48.35	39.68
08SEP90:17:15	41.10	732.00	3.30	202.50	9.63	0.00	43.39	40.99	47.35	39.46
08SEP90:17:30	40.72	692.90	3.25	172.10	9.69	0.00	43.06	40.83	45.63	38.63
08SEP90:17:45	41.28	654.10	0.49	300.80	9.39	0.00	42.85	40.31	43.52	38.17
08SEP90:18:00	41.69	606.50	1.82	239.10	9.13	0.00	42.67	40.02	41.34	37.62
08SEP90:18:15	41.52	562.60	3.83	156.60	9.19	0.00	42.88	40.27	39.93	37.11
08SEP90:18:30	41.26	512.30	3.95	168.50	9.11	0.00	42.95	40.27	38.40	36.32
08SEP90:18:45	40.99	461.70	2.77	166.10	9.00	0.00	42.64	40.04	37.03	35.34
08SEP90:19:00	41.42	410.40	2.52	184.40	8.30	0.00	42.39	39.78	35.75	34.20
08SEP90:19:15	41.52	354.40	1.66	274.10	8.18	0.00	42.16	39.76	34.80	33.43
08SEP90:19:30	41.36	267.00	2.29	184.00	8.30	0.00	41.93	39.66	34.02	33.20
08SEP90:19:45	41.70	236.60	1.16	218.20	8.25	0.00	41.61	39.52	33.44	33.20
08SEP90:20:00	40.92	169.10	3.31	198.90	8.65	0.00	41.31	39.34	32.91	33.30
08SEP90:20:15	40.40	131.90	4.54	182.90	9.01	0.00	40.94	39.14	32.45	33.25
08SEP90:20:30	39.89	76.10	4.27	181.60	9.37	0.00	40.58	38.89	31.94	33.04
08SEP90:20:45	39.49	30.22	4.47	186.00	9.61	0.00	40.23	38.62	31.57	32.92
08SEP90:21:00	39.02	6.83	3.89	185.60	9.91	0.00	39.84	38.32	31.08	32.41
08SEP90:21:15	38.67	1.11	3.76	179.30	10.02	0.00	39.46	38.03	30.67	31.43
08SEP90:21:30	38.08	0.32	3.18	170.60	10.49	0.00	39.14	37.81	30.29	30.96
08SEP90:21:45	37.80	0.39	3.37	166.50	10.72	0.00	38.82	37.61	29.97	30.76
08SEP90:22:00	37.35	0.22	3.14	164.90	11.10	0.00	38.24	37.16	29.42	30.56
08SEP90:22:15	36.31	0.32	3.21	161.90	11.54	0.00	37.82	36.79	28.93	29.72
08SEP90:22:30	36.96	0.37	3.25	157.30	11.44	0.00	37.80	36.70	28.64	29.46
08SEP90:22:45	36.73	0.22	3.32	159.50	11.74	0.00	37.48	36.44	28.54	29.50
08SEP90:23:00	36.44	0.10	3.07	162.70	11.95	0.00	37.04	36.05	28.22	29.60
08SEP90:23:15	36.37	0.25	2.75	170.50	11.87	0.00	36.63	35.61	27.89	29.80
08SEP90:23:30	36.27	0.27	2.01	175.00	11.72	0.00	36.45	35.50	27.82	29.77
08SEP90:23:45	36.54	0.34	1.55	192.30	11.29	0.00	36.05	35.16	27.45	29.43
09SEP90:00:00	36.43	0.37	0.79	216.00	11.18	0.00	35.72	34.85	27.34	28.69
09SEP90:00:15	35.89	0.12	0.23	292.70	11.48	0.00	35.45	34.64	27.14	29.44
09SEP90:00:30	36.04	0.12	0.52	119.50	11.36	0.00	35.17	34.40	26.93	29.47
09SEP90:00:45	35.42	0.39	1.17	89.20	11.87	0.00	34.73	34.13	26.60	29.28
09SEP90:01:00	35.54	0.25	1.00	68.47	11.50	0.00	34.42	33.77	26.08	28.05
09SEP90:01:15	34.96	0.27	1.12	86.40	12.50	0.00	34.06	33.44	25.77	27.78
09SEP90:01:30	34.57	-	1.05	90.70	12.57	0.00	33.97	33.39	25.78	27.52
09SEP90:01:45	33.97	0.25	1.10	69.42	13.72	0.00	33.46	32.95	25.54	27.31
09SEP90:02:00	33.03	0.15	1.88	89.00	17.35	0.00	33.41	32.85	25.48	27.18
09SEP90:02:15	32.73	0.10	2.80	108.10	20.27	0.00	32.97	32.53	25.32	27.32
09SEP90:02:30	33.28	0.03	2.78	149.70	16.88	0.00	32.74	32.26	25.02	27.08
09SEP90:02:45	33.01	0.25	1.96	144.90	16.25	0.00	32.33	31.94	24.73	26.91
09SEP90:03:00	32.82	0.20	2.03	116.10	16.39	0.00	32.16	31.80	24.73	27.09
09SEP90:03:15	32.12	0.05	2.27	99.40	19.21	0.00	32.10	31.82	24.73	26.70
09SEP90:03:30	31.32	0.00	1.31	61.04	22.79	0.00	31.76	31.54	24.56	26.93
09SEP90:03:45	30.95	0.00	1.12	80.60	23.25	0.00	31.39	31.20	24.38	26.48
09SEP90:04:00	30.69	0.07	1.63	83.50	23.40	0.00	31.18	30.93	24.15	26.20
09SEP90:04:15	30.68	0.25	1.57	83.50	22.84	0.00	30.96	30.78	24.05	25.87
09SEP90:04:30	30.81	0.05	0.88	90.40	22.21	0.00	30.62	30.45	23.74	25.93

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M <sup>2</sup> )	WIND MAGNITUD (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
09SEP90:04:45	30.95	0.22	0.73	44.31	21.71	0.00	30.60	30.43	23.61	25.50
09SEP90:05:00	31.49	0.17	0.66	96.60	20.00	0.00	30.41	30.31	23.62	25.41
09SEP90:05:15	32.71	0.15	1.22	85.90	17.07	0.00	30.19	30.06	23.30	25.20
09SEP90:05:30	32.31	0.03	1.38	74.70	17.57	0.00	29.97	29.96	23.10	25.09
09SEP90:05:45	31.24	0.10	1.69	92.50	20.20	0.00	29.71	29.67	22.83	24.82
09SEP90:06:00	31.33	0.15	1.30	48.56	19.53	0.00	29.59	29.52	22.72	24.08
09SEP90:06:15	30.66	0.03	1.22	91.90	21.45	0.00	29.37	29.37	22.75	24.80
09SEP90:06:30	29.95	0.05	1.45	81.50	23.08	0.00	29.12	29.06	22.61	24.65
09SEP90:06:45	31.00	0.10	0.87	75.70	20.09	0.00	29.48	29.32	23.19	24.69
09SEP90:07:00	29.83	0.17	1.84	86.50	23.19	0.00	29.54	29.39	24.10	25.19
09SEP90:07:15	31.30	0.00	1.06	38.75	18.68	0.00	29.99	29.85	25.55	25.94
09SEP90:07:30	31.59	0.12	1.09	47.82	18.65	0.00	30.27	30.42	27.32	26.75
09SEP90:07:45	31.11	0.05	0.33	41.38	19.29	0.00	30.32	30.62	29.13	28.45
09SEP90:08:00	29.95	0.17	0.91	96.00	22.22	0.00	30.30	30.59	30.86	30.01
09SEP90:08:15	29.00	1.77	1.91	85.60	25.03	0.00	30.63	30.18	31.76	30.69
09SEP90:08:30	28.88	7.89	1.81	82.90	25.70	0.00	30.69	30.21	33.34	31.40
09SEP90:08:45	30.12	24.30	1.04	97.90	22.67	0.00	30.64	30.69	34.52	31.84
09SEP90:09:00	30.76	67.41	1.45	103.60	21.80	0.00	31.00	31.16	36.41	32.53
09SEP90:09:15	31.28	118.40	1.32	105.80	21.02	0.00	31.34	31.18	37.62	32.88
09SEP90:09:30	30.94	166.10	1.54	125.20	22.68	0.00	32.14	31.51	39.17	33.61
09SEP90:09:45	31.55	217.10	1.59	130.10	20.93	0.00	32.31	31.99	40.91	34.13
09SEP90:10:00	31.84	269.80	1.66	126.50	21.55	0.00	32.78	32.31	42.80	35.10
09SEP90:10:15	32.43	322.40	2.23	156.00	22.38	0.00	33.23	33.08	45.09	36.13
09SEP90:10:30	32.31	375.00	3.89	167.80	22.99	0.00	33.53	33.44	46.98	36.71
09SEP90:10:45	32.40	427.20	4.02	172.10	22.91	0.00	33.53	33.66	48.47	36.79
09SEP90:11:00	32.55	477.30	4.15	173.00	22.63	0.00	33.98	33.88	49.69	37.19
09SEP90:11:15	33.06	526.10	5.06	181.10	22.66	0.00	34.52	34.42	51.59	37.96
09SEP90:11:30	37.12	857.00	2.91	161.90	18.75	0.00	35.00	34.87	53.20	38.52
09SEP90:11:45	37.12	869.00	2.98	160.80	17.87	0.00	35.19	34.86	53.75	38.66
09SEP90:12:00	38.23	893.00	1.42	191.20	16.24	0.00	35.42	35.37	54.83	39.14
09SEP90:12:15	38.30	905.00	1.90	167.70	15.64	0.00	35.83	35.54	55.78	39.88
09SEP90:12:30	38.91	914.00	1.70	221.30	14.42	0.00	36.04	35.63	56.03	39.98
09SEP90:12:45	39.38	918.00	1.78	181.50	13.29	0.00	37.05	36.24	57.47	41.03
09SEP90:13:00	40.38	917.00	1.94	192.80	12.58	0.00	37.25	36.45	58.00	40.92
09SEP90:13:15	39.88	911.00	2.27	175.00	11.73	0.00	37.72	36.73	58.06	41.72
09SEP90:13:30	40.52	902.00	1.92	198.00	10.50	0.00	38.30	37.48	58.19	41.35
09SEP90:13:45	41.09	889.00	1.68	229.90	9.11	0.00	39.03	38.10	58.99	41.75
09SEP90:14:00	40.88	874.00	1.57	263.50	8.81	0.00	38.78	37.76	58.36	42.03
09SEP90:14:15	41.95	858.00	1.63	223.80	7.55	0.00	39.48	38.21	57.75	42.06
09SEP90:14:30	41.52	829.00	2.44	180.90	7.68	0.00	40.42	39.31	58.44	41.85
09SEP90:14:45	41.69	797.00	1.24	189.10	7.74	0.00	40.36	39.48	58.09	42.12
09SEP90:15:00	42.11	764.00	3.30	139.60	7.56	0.00	40.54	39.22	57.12	41.85
09SEP90:15:15	41.83	732.00	3.39	155.10	7.60	0.00	40.82	38.98	56.16	41.73
09SEP90:15:30	41.99	692.00	3.92	142.70	7.44	0.00	41.66	39.89	56.27	41.99
09SEP90:15:45	41.91	648.80	2.67	124.30	7.32	0.00	42.13	40.53	55.90	41.47
09SEP90:16:00	41.84	603.10	2.36	137.40	7.33	0.00	41.56	40.07	53.77	40.77
09SEP90:16:15	42.12	556.40	1.91	172.70	7.36	0.00	42.35	40.01	53.79	41.26
09SEP90:16:30	41.78	505.60	3.15	181.80	7.44	0.00	42.89	41.09	53.23	41.36
09SEP90:16:45	42.22	451.30	1.97	191.40	7.19	0.00	42.17	40.45	50.83	40.54
09SEP90:17:00	42.63	399.70	0.33	256.40	6.92	0.00	43.03	40.99	49.42	40.31

DAY AND TIME OF COLLECTION	AIR (Deg. C)	SOLAR (W/M <sup>2</sup> )	WIND (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
09SEP90:17:15	42.30	344.70	2.64	142.40	7.03	0.00	43.11	40.93	47.97	39.85
09SEP90:17:30	42.18	252.80	2.11	244.30	7.16	0.00	42.95	40.59	46.04	39.08
09SEP90:17:45	41.98	223.50	2.07	190.40	7.27	0.00	43.91	41.11	45.33	39.04
09SEP90:18:00	41.66	159.30	2.80	165.00	7.39	0.00	43.95	41.27	43.53	38.19
09SEP90:18:15	41.30	123.60	3.17	176.30	7.67	0.00	44.10	41.28	41.95	37.53
09SEP90:18:30	41.04	71.10	2.64	176.40	7.80	0.00	43.59	40.85	39.82	36.21
09SEP90:18:45	40.70	27.52	2.74	169.60	7.94	0.00	43.58	40.62	38.33	35.18
09SEP90:19:00	40.16	5.58	2.97	193.60	8.27	0.00	42.95	40.14	36.62	34.06
09SEP90:19:15	39.62	0.96	4.23	196.30	8.53	0.00	42.75	40.07	35.60	33.92
09SEP90:19:30	39.17	0.29	4.16	191.60	8.60	0.00	42.59	40.08	34.85	33.68
09SEP90:19:45	38.69	0.71	3.74	177.80	8.69	0.00	42.28	39.95	34.09	33.35
09SEP90:20:00	38.01	0.25	2.93	166.80	9.18	0.00	42.03	39.77	33.48	32.82
09SEP90:20:15	38.13	0.42	3.20	166.00	9.10	0.00	41.71	39.60	33.01	33.11
09SEP90:20:30	37.45	3.05	2.86	150.90	9.53	0.00	41.39	39.42	32.65	33.38
09SEP90:20:45	37.50	0.22	3.12	153.80	9.48	0.00	41.05	39.20	32.29	33.33
09SEP90:21:00	37.47	0.34	2.91	163.40	9.56	0.00	40.67	38.96	31.88	32.85
09SEP90:21:15	37.32	0.37	2.75	170.10	9.74	0.00	40.28	38.62	31.42	31.69
09SEP90:21:30	37.03	0.29	2.23	173.90	9.93	0.00	39.94	38.38	31.04	31.57
09SEP90:21:45	37.04	0.44	1.53	231.50	10.00	0.00	39.34	38.00	30.48	31.52
09SEP90:22:00	36.11	0.29	0.50	81.00	10.80	0.00	39.11	37.74	29.84	30.82
09SEP90:22:15	35.71	0.20	1.77	98.40	11.38	0.00	38.84	37.49	29.64	30.40
09SEP90:22:30	35.65	0.37	2.63	116.30	11.67	0.00	38.68	37.34	29.78	31.06
09SEP90:22:45	35.30	0.32	2.37	101.70	12.00	0.00	38.22	37.10	29.15	30.52
09SEP90:23:00	35.14	0.17	1.66	110.90	12.38	0.00	37.83	36.69	28.87	29.66
09SEP90:23:15	34.32	0.10	2.25	91.50	13.43	0.00	37.53	36.39	28.54	29.34
09SEP90:23:30	33.87	0.32	2.70	86.30	14.82	0.00	37.15	35.99	28.22	29.16
09SEP90:23:45	34.63	0.00	3.10	95.90	16.28	0.00	36.81	35.81	28.24	29.44
10SEP90:00:00	32.97	0.07	3.03	93.20	22.07	0.00	36.49	35.52	27.93	29.60
10SEP90:00:15	32.97	0.12	2.41	80.00	25.30	0.00	36.14	35.22	27.75	28.98
10SEP90:00:30	32.53	0.12	2.65	92.20	27.18	0.00	35.78	34.82	27.29	28.84
10SEP90:00:45	32.67	0.03	0.81	72.70	28.54	0.00	35.12	34.25	26.91	28.17
10SEP90:01:00	32.04	0.34	1.65	0.48	29.37	0.00	35.06	34.10	26.69	27.57
10SEP90:01:15	32.51	0.20	0.85	84.80	29.28	0.00	35.00	34.01	26.55	27.32
10SEP90:01:30	31.43	0.03	2.05	84.70	31.21	0.00	34.73	33.86	26.52	27.73
10SEP90:01:45	31.49	.	1.61	90.90	32.01	0.00	34.32	33.59	26.36	28.17
10SEP90:02:00	31.66	.	1.64	86.20	32.36	0.00	33.70	33.02	26.00	27.78
10SEP90:02:15	31.43	.	1.49	81.80	32.50	0.00	33.74	33.01	26.01	27.68
10SEP90:02:30	31.12	.	1.42	82.90	32.47	0.00	33.32	32.67	25.70	27.93
10SEP90:02:45	30.63	.	1.81	86.20	32.69	0.00	32.98	32.37	25.49	27.32
10SEP90:03:00	31.12	.	1.37	78.00	32.03	0.00	32.67	32.12	25.34	27.66
10SEP90:03:15	30.90	0.12	1.56	76.90	32.56	0.00	32.42	31.88	25.05	26.91
10SEP90:03:30	31.42	0.10	1.86	86.10	31.74	0.00	32.07	31.60	24.71	26.42
10SEP90:03:45	30.80	.	1.73	92.90	32.32	0.00	31.71	31.29	24.44	25.81
10SEP90:04:00	31.03	0.27	1.57	79.70	32.05	0.00	31.49	31.09	24.20	25.63
10SEP90:04:15	32.23	0.29	0.90	95.60	30.23	0.00	31.27	30.86	23.96	25.50
10SEP90:04:30	32.16	0.34	0.79	114.00	30.14	0.00	31.23	30.79	23.97	25.55
10SEP90:04:45	31.34	0.39	1.29	81.70	31.56	0.00	31.02	30.65	23.88	25.42
10SEP90:05:00	31.07	0.44	0.89	65.41	32.08	0.00	30.48	30.18	23.50	25.88
10SEP90:05:15	30.95	0.37	0.93	47.49	32.34	0.00	30.34	30.06	23.29	25.28
10SEP90:05:30	30.91	0.29	1.40	25.26	32.34	0.00	30.28	29.98	23.26	25.10

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M <sup>2</sup> )	WIND MAGNITUD (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND	
									ROCK & SAND (Deg. C)	BUSHES & TREES (Deg. C)
10SEP90:05:45	31.82	0.42	1.57	25.53	31.00	0.00	29.92	29.67	22.91	24.65
10SEP90:06:00	31.74	0.64	1.84	8.59	31.06	0.00	29.54	29.39	22.67	24.49
10SEP90:06:15	31.12	2.08	1.09	331.80	31.85	0.00	29.34	29.19	22.43	23.92
10SEP90:06:30	30.74	7.73	1.00	9.11	32.43	0.00	29.25	29.07	22.43	23.77
10SEP90:06:45	30.30	25.64	0.71	116.70	33.48	0.00	29.57	29.37	23.06	24.25
10SEP90:07:00	29.81	69.26	1.68	83.90	33.08	0.00	29.82	29.64	24.21	25.23
10SEP90:07:15	31.40	121.50	0.94	95.70	31.03	0.00	29.67	29.63	25.32	26.14
10SEP90:07:30	32.02	170.50	0.70	70.10	30.01	0.00	30.00	30.12	27.04	26.97
10SEP90:07:45	32.29	221.50	0.97	89.40	30.85	0.00	30.22	30.35	29.01	28.61
10SEP90:08:00	32.00	276.00	1.70	101.60	30.36	0.00	30.44	30.71	31.04	30.16
10SEP90:08:15	32.80	327.50	1.22	138.70	29.61	0.00	31.05	30.67	32.96	31.05
10SEP90:08:30	33.19	381.10	1.45	164.60	29.45	0.00	31.09	30.80	34.46	31.73
10SEP90:08:45	33.62	432.10	1.49	186.00	29.38	0.00	30.93	31.20	36.19	32.09
10SEP90:09:00	34.16	485.60	1.52	194.10	28.64	0.00	31.28	31.39	38.29	33.30
10SEP90:09:15	34.79	534.90	2.24	166.80	27.70	0.00	31.65	31.62	40.24	34.13
10SEP90:09:30	35.17	581.80	2.23	174.20	25.92	0.00	32.39	31.71	41.56	34.69
10SEP90:09:45	35.38	628.90	1.47	207.40	24.54	0.00	32.58	32.11	43.16	35.15
10SEP90:10:00	36.33	672.10	1.50	210.10	23.09	0.00	32.63	31.53	44.58	35.86
10SEP90:10:15	36.85	713.00	1.27	220.30	21.21	0.00	33.22	32.75	46.37	36.52
10SEP90:10:30	37.27	750.00	1.87	184.00	20.28	0.00	33.75	33.57	48.61	37.63
10SEP90:10:45	37.79	785.00	1.12	267.20	17.52	0.00	34.23	33.72	50.58	38.66
10SEP90:11:00	39.17	817.00	1.06	292.90	14.11	0.00	34.64	34.17	52.35	39.80
10SEP90:11:15	39.67	843.00	1.78	282.20	11.22	0.00	35.36	35.15	54.28	40.44
10SEP90:11:30	40.57	867.00	1.90	211.00	9.60	0.00	34.86	35.02	54.30	40.36
10SEP90:11:45	40.73	883.00	3.45	166.20	9.92	0.00	35.92	35.72	55.88	41.54
10SEP90:12:00	41.40	896.00	3.60	171.60	8.92	0.00	36.13	35.98	56.02	41.48
10SEP90:12:15	41.80	909.00	2.12	256.30	7.75	0.00	36.92	36.44	57.31	42.23
10SEP90:12:30	42.02	918.00	3.79	293.90	6.97	0.00	37.60	37.11	58.18	42.53
10SEP90:12:45	41.97	923.00	2.38	299.90	6.85	0.00	37.77	37.42	57.76	43.61
10SEP90:13:00	42.04	922.00	2.93	331.80	6.73	0.00	38.42	38.23	59.33	43.90
10SEP90:13:15	42.85	918.00	1.30	32.94	6.44	0.00	39.19	39.03	60.21	43.65
10SEP90:13:30	42.85	907.00	2.77	348.50	6.37	0.00	38.91	38.73	59.61	43.98
10SEP90:13:45	43.46	893.00	0.60	27.34	6.11	0.00	40.04	39.67	60.32	44.15
10SEP90:14:00	43.82	877.00	1.10	9.39	5.94	0.00	40.39	39.95	60.13	43.81
10SEP90:14:15	43.21	853.00	2.51	320.40	6.09	0.00	40.81	40.25	60.26	43.90
10SEP90:14:30	43.73	823.00	2.07	270.30	5.90	0.00	40.78	40.02	58.78	44.18
10SEP90:14:45	43.91	793.00	1.08	251.40	5.83	0.00	41.49	40.72	57.93	43.89
10SEP90:15:00	43.90	764.00	0.57	326.00	5.83	0.00	42.08	41.38	58.48	43.78
10SEP90:15:15	43.68	728.00	2.17	247.40	5.85	0.00	42.28	41.47	58.00	43.60
10SEP90:15:30	43.66	686.30	3.15	296.60	5.86	0.00	41.97	41.17	55.20	42.59
10SEP90:15:45	43.34	643.20	4.16	284.60	5.95	0.00	42.92	42.24	55.38	42.91
10SEP90:16:00	43.65	598.60	4.04	275.20	5.87	0.00	42.61	41.16	53.59	43.20
10SEP90:16:15	43.49	553.40	2.46	261.20	5.93	0.00	42.91	41.66	52.18	42.80
10SEP90:16:30	43.27	501.50	3.21	323.90	5.99	0.00	44.61	43.62	52.90	42.42
10SEP90:16:45	43.42	448.40	3.53	285.30	6.05	0.00	43.38	42.04	51.19	41.63
10SEP90:17:00	43.60	391.40	2.00	263.40	5.96	0.00	43.65	42.38	49.80	41.49
10SEP90:17:15	43.20	337.90	2.96	286.90	6.06	0.00	44.68	42.89	49.48	41.54
10SEP90:17:30	42.99	248.00	2.69	265.60	6.17	0.00	44.02	41.94	47.05	40.97
10SEP90:17:45	43.03	215.10	3.04	274.60	6.15	0.00	44.39	42.28	45.28	40.92
10SEP90:18:00	42.93	159.30	1.76	286.30	6.19	0.00	44.67	42.61	44.01	39.98

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M <sup>2</sup> )	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
10SEP90:18:15	42.90	117.70	1.48	278.90	6.20	0.00	44.00	42.60	41.74	38.37
10SEP90:18:30	42.28	65.74	1.29	278.10	6.46	0.00	44.07	42.48	40.01	37.55
10SEP90:18:45	42.28	25.69	0.84	242.60	6.55	0.00	43.70	42.05	38.30	36.14
10SEP90:19:00	41.34	4.79	1.90	197.60	7.01	0.00	42.84	41.58	37.00	34.95
10SEP90:19:15	40.47	0.93	4.04	187.40	7.56	0.00	43.17	41.50	36.09	34.97
10SEP90:19:30	39.88	0.59	3.95	183.10	7.85	0.00	43.25	41.37	35.14	34.69
10SEP90:19:45	39.34	0.34	3.91	177.50	8.14	0.00	42.99	41.21	34.57	34.77
10SEP90:20:00	38.68	0.42	3.76	164.80	8.48	0.00	42.72	41.03	34.04	35.04
10SEP90:20:15	38.55	0.64	3.51	162.80	8.65	0.00	42.30	40.77	33.53	34.73
10SEP90:20:30	38.13	0.29	3.50	158.80	8.94	0.00	41.92	40.47	33.04	34.62
10SEP90:20:45	37.85	3.12	3.48	153.90	9.10	0.00	41.53	40.19	32.45	34.38
10SEP90:21:00	37.79	0.32	3.46	162.30	9.06	0.00	41.10	39.89	31.98	33.82
10SEP90:21:15	37.71	0.15	2.72	188.90	9.03	0.00	40.62	39.53	31.40	32.38
10SEP90:21:30	38.02	0.17	2.41	201.30	8.83	0.00	40.27	39.22	30.88	31.88
10SEP90:21:45	37.45	0.25	2.37	198.20	9.06	0.00	39.87	38.89	30.40	31.44
10SEP90:22:00	37.62	0.22	1.84	199.00	8.94	0.00	39.26	38.35	29.62	31.37
10SEP90:22:15	37.56	0.17	1.07	198.20	8.92	0.00	39.00	38.10	29.11	30.62
10SEP90:22:30	37.06	0.20	0.42	185.00	9.11	0.00	38.89	37.91	28.66	29.90
10SEP90:22:45	36.74	0.22	0.39	125.80	9.21	0.00	38.47	37.56	28.30	29.61
10SEP90:23:00	36.53	0.32	0.76	102.50	9.36	0.00	38.10	37.31	28.24	29.27
10SEP90:23:15	35.93	0.15	0.57	92.90	9.63	0.00	37.64	36.84	27.72	29.46
10SEP90:23:30	35.48	0.15	0.93	75.90	9.98	0.00	37.08	36.28	27.30	29.12
10SEP90:23:45	34.84	0.10	1.80	97.00	10.69	0.00	37.00	36.22	27.17	29.22
11SEP90:00:00	34.80	0.05	1.72	99.80	10.85	0.00	36.23	35.51	26.67	29.03
11SEP90:00:15	35.52	0.05	1.51	91.50	10.25	0.00	35.94	35.14	26.30	28.21
11SEP90:00:30	35.66	0.25	0.87	89.20	10.01	0.00	35.91	35.05	26.21	28.45
11SEP90:00:45	35.68	0.15	1.00	79.80	10.01	0.00	35.53	34.80	26.06	28.52
11SEP90:01:00	33.53	0.15	1.62	84.10	12.59	0.00	35.16	34.47	25.97	28.13
11SEP90:01:15	33.51	0.20	1.24	82.80	12.68	0.00	34.67	34.08	25.72	28.34
11SEP90:01:30	34.03	0.12	1.18	67.08	11.92	0.00	34.29	33.75	25.49	28.24
11SEP90:01:45	34.43	0.12	0.91	82.70	11.33	0.00	33.81	33.31	25.16	28.08
11SEP90:02:00	34.42	0.17	1.17	70.50	11.29	0.00	33.78	33.19	25.01	27.39
11SEP90:02:15	34.13	0.12	1.21	74.10	11.51	0.00	33.31	32.85	24.80	27.69
11SEP90:02:30	33.48	.	1.13	90.80	12.14	0.00	33.08	32.60	24.55	27.78
11SEP90:02:45	34.38	.	0.92	91.60	11.13	0.00	32.83	32.41	24.30	27.20
11SEP90:03:00	33.33	.	1.22	84.60	12.17	0.00	32.53	32.17	24.06	26.40
11SEP90:03:15	31.09	.	2.29	88.60	15.12	0.00	32.08	31.74	23.75	26.60
11SEP90:03:30	33.24	1.47	1.29	87.00	12.41	0.00	31.86	31.51	23.46	26.06
11SEP90:03:45	33.05	.	1.20	29.28	12.66	0.00	31.64	31.37	23.40	25.95
11SEP90:04:00	33.56	0.12	0.67	66.95	11.96	0.00	31.35	31.05	23.15	25.52
11SEP90:04:15	33.69	0.07	0.87	86.80	11.69	0.00	31.13	30.76	22.84	25.35
11SEP90:04:30	32.97	0.34	1.54	88.40	12.16	0.00	30.84	30.59	22.69	25.30
11SEP90:04:45	32.41	0.27	2.06	87.10	12.62	0.00	30.66	30.41	22.48	25.03
11SEP90:05:00	32.41	0.25	2.01	97.80	12.63	0.00	30.25	30.00	22.31	24.94
11SEP90:05:15	32.76	0.34	1.07	78.70	12.25	0.00	30.14	29.81	22.12	24.73
11SEP90:05:30	32.97	0.54	0.93	356.50	12.01	0.00	29.81	29.63	21.92	24.19
11SEP90:05:45	32.99	0.52	0.35	294.70	11.87	0.00	29.78	29.55	21.87	24.28
11SEP90:06:00	32.93	0.54	0.24	317.40	11.77	0.00	29.66	29.41	21.81	24.64
11SEP90:06:15	33.14	1.84	0.45	19.03	11.48	0.00	29.35	29.28	21.74	24.54
11SEP90:06:30	32.67	7.61	0.41	57.21	11.90	0.00	28.87	28.78	21.57	24.38

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M <sup>2</sup> )	WIND MAGNITUD (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
11SEP90:06:45	32.36	27.28	0.44	58.35	12.08	0.00	29.12	28.92	21.95	24.27
11SEP90:07:00	32.86	68.64	0.93	32.23	11.64	0.00	29.32	29.23	23.00	24.78
11SEP90:07:15	32.25	121.10	0.51	32.01	12.09	0.00	24.99	25.52	25.98	28.01
11SEP90:07:30	34.20	170.80	0.09	46.34	10.96	0.00	26.03	26.27	26.47	28.63
11SEP90:07:45	.	.	.	.	.	.	27.94	27.78	27.66	29.14
11SEP90:08:00	33.70	275.60	0.69	131.90	12.28	0.00	29.96	29.14	28.64	29.68
11SEP90:08:15	33.52	330.10	0.79	102.20	12.79	0.00	31.95	30.26	29.40	30.35
11SEP90:08:30	35.29	384.30	0.55	86.10	11.26	0.00	34.05	31.50	30.50	31.52
11SEP90:08:45	36.11	438.90	0.26	77.00	11.05	0.00	36.10	32.40	31.70	32.47
11SEP90:09:00	36.85	491.50	0.28	13.59	10.64	0.00	37.94	33.66	32.63	33.36
11SEP90:09:15	37.23	543.00	0.16	189.20	10.06	0.00	39.30	34.25	33.18	34.15
11SEP90:09:30	37.64	590.70	1.15	178.90	9.54	0.00	40.28	34.55	33.44	34.91
11SEP90:09:45	37.88	636.10	1.84	193.70	9.00	0.00	41.11	35.16	34.03	35.54
11SEP90:10:00	38.69	682.80	1.10	234.80	8.40	0.00	42.84	36.39	35.54	36.34
11SEP90:10:15	39.32	722.00	1.34	232.30	8.22	0.00	43.36	36.66	35.94	36.82
11SEP90:10:30	39.45	759.00	1.19	244.60	8.01	0.00	44.52	37.53	37.33	37.81
11SEP90:10:45	40.28	793.00	2.23	201.80	7.59	0.00	46.13	38.34	38.82	38.94
11SEP90:11:00	40.29	824.00	2.31	198.50	7.49	0.00	46.95	38.74	39.58	39.49
11SEP90:11:15	40.91	850.00	1.77	187.70	7.17	0.00	47.89	39.30	40.82	40.27
11SEP90:11:30	41.02	864.00	1.71	217.90	7.12	0.00	48.49	39.50	41.72	40.77
11SEP90:11:45	41.77	882.00	2.49	206.60	6.81	0.00	49.07	40.02	42.73	41.35
11SEP90:12:00	41.73	900.00	2.83	204.30	6.72	0.00	49.25	40.39	43.58	41.71
11SEP90:12:15	42.29	912.00	2.25	228.10	6.43	0.00	49.77	40.78	44.62	42.61
11SEP90:12:30	42.55	923.00	2.67	251.80	6.27	0.00	50.54	41.48	45.24	37.48
11SEP90:12:45	43.01	927.00	2.73	220.80	6.06	0.00	50.78	41.30	45.77	38.19
11SEP90:13:00	42.87	927.00	2.71	219.70	6.04	0.00	50.85	41.39	46.11	38.62
11SEP90:13:15	43.24	921.00	2.50	275.20	5.88	0.00	50.90	41.55	46.30	39.02
11SEP90:13:30	43.50	917.00	3.22	251.50	5.80	0.00	50.76	42.20	46.81	39.05
11SEP90:13:45	43.41	903.00	2.86	258.90	5.71	0.00	50.64	41.93	47.04	40.02
11SEP90:14:00	43.39	885.00	3.75	205.90	5.71	0.00	51.14	42.26	47.49	40.95
11SEP90:14:15	43.83	865.00	3.68	201.60	5.57	0.00	50.36	41.51	47.00	41.12
11SEP90:14:30	43.60	836.00	1.68	223.20	5.61	0.00	50.88	41.43	47.31	41.91
11SEP90:14:45	44.57	807.00	1.73	210.70	5.24	0.00	50.64	41.78	47.05	41.48
11SEP90:15:00	44.07	780.00	2.68	205.60	5.40	0.00	49.76	41.36	46.09	41.58
11SEP90:15:15	43.67	747.00	3.44	171.20	5.51	0.00	50.17	41.67	45.58	42.40
11SEP90:15:30	44.30	711.00	3.63	195.80	4.98	0.00	48.17	41.08	43.44	46.21
11SEP90:15:45	44.00	668.60	5.02	175.60	5.31	0.00	48.25	41.88	43.42	46.16
11SEP90:16:00	44.24	622.60	3.12	200.50	5.22	0.00	47.60	41.64	42.77	46.32
11SEP90:16:15	44.49	577.10	3.79	217.90	5.13	0.00	46.76	41.31	42.00	45.81
11SEP90:16:30	44.39	525.70	2.11	233.40	5.17	0.00	46.14	42.00	41.65	45.56
11SEP90:16:45	44.07	472.90	3.06	187.60	5.38	0.00	45.44	41.54	41.56	46.13
11SEP90:17:00	44.06	418.40	1.83	156.60	5.28	0.00	44.62	40.60	40.95	45.84
11SEP90:17:15	43.76	359.40	3.22	186.40	5.39	0.00	43.42	40.61	40.28	45.42
11SEP90:17:30	43.98	224.80	3.03	226.80	5.32	0.00	41.97	39.26	39.28	44.67
11SEP90:17:45	43.87	224.30	2.30	211.30	5.37	0.00	41.00	39.81	38.94	44.10
11SEP90:18:00	43.46	183.60	3.57	207.10	5.50	0.00	39.89	38.75	38.52	43.64
11SEP90:18:15	43.11	138.00	4.55	210.90	5.64	0.00	38.74	38.92	37.99	43.14
11SEP90:18:30	42.62	77.40	4.06	209.80	5.80	0.00	37.41	37.96	37.30	42.67
11SEP90:18:45	42.18	26.80	3.46	209.70	5.94	0.00	35.88	36.50	36.33	41.87
11SEP90:19:00	41.60	4.47	3.57	209.50	6.19	0.00	33.94	35.35	35.06	41.03

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M <sup>2</sup> )	WIND MAGNITUD (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
11SEP90:19:15	41.03	0.93	2.22	216.50	6.38	0.00	32.44	33.79	34.13	40.52
11SEP90:19:30	40.48	0.49	2.26	207.70	6.53	0.00	31.51	32.97	33.61	40.03
11SEP90:19:45	39.49	0.37	0.71	335.80	6.93	0.00	31.83	34.50	34.11	39.73
11SEP90:20:00	38.05	0.54	2.29	133.10	7.49	0.00	32.75	35.66	34.92	39.61
11SEP90:20:15	37.42	0.54	5.80	164.70	12.94	0.00	33.33	35.61	35.37	39.14
11SEP90:20:30	36.11	-	7.30	175.40	26.86	0.00	32.88	34.66	34.83	38.64
11SEP90:20:45	35.77	1.99	6.68	177.20	30.20	0.00	32.41	34.07	34.38	38.08
11SEP90:21:00	35.35	3.22	5.83	182.30	31.89	0.00	31.83	33.45	33.91	37.56
11SEP90:21:15	34.86	0.27	4.38	182.20	33.33	0.00	31.46	33.05	33.55	37.02
11SEP90:21:30	34.46	0.37	2.51	175.10	34.56	0.00	30.71	32.16	32.88	36.57
11SEP90:21:45	-	-	-	-	-	-	30.02	31.58	32.31	36.23
11SEP90:22:00	34.02	0.15	2.12	170.80	35.90	0.00	29.90	31.41	32.26	35.88
11SEP90:22:15	33.57	-	2.24	148.00	36.64	0.00	29.33	31.09	31.75	35.50
11SEP90:22:30	33.32	0.25	2.98	168.30	37.03	0.00	29.07	30.75	31.55	35.17
11SEP90:22:45	32.87	0.12	3.70	156.80	37.59	0.00	29.19	31.03	31.60	34.91
11SEP90:23:00	32.55	0.17	3.41	155.30	38.17	0.00	29.08	30.70	31.48	34.53
11SEP90:23:15	32.61	0.34	2.90	150.40	38.68	0.00	28.62	30.16	31.01	34.11
11SEP90:23:30	32.08	0.29	2.04	145.80	39.26	0.00	27.92	29.48	30.36	33.67
11SEP90:23:45	31.62	0.32	3.48	117.00	40.31	0.00	28.40	30.40	30.70	33.62
12SEP90:00:00	31.79	0.17	2.85	115.30	40.30	0.00	28.14	29.98	30.44	33.27
12SEP90:00:15	31.51	0.12	2.87	103.20	41.03	0.00	27.65	29.60	29.95	32.86
12SEP90:00:30	31.21	0.25	3.34	116.40	41.46	0.00	27.34	29.46	29.69	32.53
12SEP90:00:45	31.05	0.29	3.03	117.10	40.06	0.00	27.14	29.50	29.51	32.21
12SEP90:01:00	31.25	0.12	2.96	131.30	37.39	0.00	26.58	29.20	29.05	31.84
12SEP90:01:15	31.03	0.07	2.18	132.80	36.46	0.00	25.80	28.66	28.39	31.46
12SEP90:01:30	31.05	0.25	1.96	135.80	35.71	0.00	25.47	27.51	28.09	31.01
12SEP90:01:45	31.12	-	2.05	97.50	34.78	0.00	24.83	26.52	27.45	30.60
12SEP90:02:00	30.89	-	1.81	93.50	34.80	0.00	24.46	26.14	27.08	30.29
12SEP90:02:15	30.70	-	2.40	112.50	34.91	0.00	24.14	25.97	26.72	30.05
12SEP90:02:30	30.23	0.10	1.95	94.30	35.45	0.00	24.09	26.23	26.72	29.87
12SEP90:02:45	30.65	0.12	1.48	94.40	34.40	0.00	23.90	25.66	26.43	29.36
12SEP90:03:00	30.66	0.10	1.74	94.20	34.11	0.00	23.52	24.98	26.05	29.23
12SEP90:03:15	29.91	0.10	0.97	78.60	35.29	0.00	23.77	25.26	26.16	29.07
12SEP90:03:30	29.81	0.34	0.74	97.50	35.14	0.00	23.53	25.13	25.80	28.59
12SEP90:03:45	29.93	0.29	1.44	82.00	34.68	0.00	23.11	24.87	25.46	28.45
12SEP90:04:00	28.98	0.44	2.67	104.60	36.58	0.00	23.28	26.16	25.63	28.50
12SEP90:04:15	29.26	0.37	2.71	136.40	36.30	0.00	23.12	25.73	25.51	28.23
12SEP90:04:30	29.17	0.34	2.87	170.60	36.80	0.00	23.05	24.83	25.38	27.91
12SEP90:04:45	28.58	0.49	0.77	109.00	37.21	0.00	22.93	24.56	25.13	27.71
12SEP90:05:00	28.69	0.52	0.59	98.00	36.66	0.00	22.22	23.66	24.44	27.35
12SEP90:05:15	28.55	0.32	0.44	88.50	36.52	0.00	21.98	23.40	24.14	26.98
12SEP90:05:30	28.73	0.47	0.79	11.99	36.41	0.00	21.72	23.10	23.95	26.77
12SEP90:05:45	28.04	0.47	1.33	347.50	37.41	0.00	21.58	22.81	23.86	26.75
12SEP90:06:00	28.28	0.59	0.95	5.05	37.30	0.00	21.53	22.73	23.83	26.71
12SEP90:06:15	28.34	1.72	1.01	36.55	37.32	0.00	21.87	23.07	23.95	26.52
12SEP90:06:30	27.94	7.60	1.87	8.99	38.86	0.00	21.83	23.00	23.81	26.31
12SEP90:06:45	28.06	26.07	1.39	20.11	39.02	0.00	22.20	23.28	24.09	26.68
12SEP90:07:00	28.10	62.87	1.24	9.40	39.64	0.00	23.24	24.20	24.74	26.91
12SEP90:07:15	27.79	112.10	1.90	357.60	41.40	0.00	24.25	24.71	25.31	26.96
12SEP90:07:30	28.93	161.90	0.70	52.06	40.57	0.00	25.65	25.69	26.03	27.54

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF TANK (Deg. C)	TRACK OF TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
12SEP90:07:45	29.01	211.80	1.35	88.10	39.00	0.00	27.30	26.93	27.13	28.05
12SEP90:08:00	29.95	263.10	0.76	88.70	37.91	0.00	28.97	28.12	27.84	28.48
12SEP90:08:15	31.25	318.00	0.60	77.20	36.67	0.00	30.82	28.98	28.59	29.24
12SEP90:08:30	31.34	371.60	1.55	91.90	36.10	0.00	32.66	29.63	29.44	30.10
12SEP90:08:45	31.60	423.70	1.63	120.00	35.36	0.00	33.85	30.28	29.86	30.90
12SEP90:09:00	31.54	474.80	1.77	119.20	36.05	0.00	34.93	30.91	30.34	31.42
12SEP90:09:15	32.41	522.50	3.10	161.00	37.43	0.00	36.03	31.36	31.15	32.08
12SEP90:09:30	32.55	570.00	3.43	166.60	38.40	0.00	37.63	32.37	32.04	32.99
12SEP90:09:45	32.67	612.70	3.45	182.50	38.60	0.00	38.60	32.89	32.68	33.55
12SEP90:10:00	32.94	657.50	3.71	179.00	38.14	0.00	39.36	33.26	33.36	33.77
12SEP90:10:15	33.26	693.80	4.66	180.40	37.31	0.00	40.37	33.91	34.18	34.39
12SEP90:10:30	33.91	734.00	4.30	180.50	36.30	0.00	40.91	34.14	34.96	34.85
12SEP90:10:45	34.56	770.00	4.06	176.10	35.37	0.00	42.03	34.66	36.18	35.77
12SEP90:11:00	34.34	798.00	4.89	183.90	35.25	0.00	42.63	34.95	36.96	36.19
12SEP90:11:15	34.61	825.00	4.73	176.50	35.20	0.00	43.42	35.39	38.32	37.17
12SEP90:11:30	35.21	849.00	4.72	179.00	34.09	0.00	44.57	35.59	39.30	37.98
12SEP90:11:45	35.82	866.00	3.46	200.10	33.49	0.00	45.56	35.91	39.97	38.47
12SEP90:12:00	35.60	877.00	4.05	164.40	34.72	0.00	46.45	35.77	41.21	39.39
12SEP90:12:15	36.68	888.00	4.99	157.70	33.38	0.00	46.69	36.54	41.64	39.41
12SEP90:12:30	36.93	903.00	5.49	181.60	31.94	0.00	46.62	36.54	41.98	39.87
12SEP90:12:45	36.95	904.00	4.94	179.30	30.73	0.00	47.36	37.14	43.03	40.32
12SEP90:13:00	37.74	909.00	2.77	195.60	27.82	0.00	47.77	37.55	43.68	40.99
12SEP90:13:15	38.28	905.00	3.37	192.20	24.47	0.00	48.19	37.81	43.91	41.21
12SEP90:13:30	38.28	897.00	4.16	181.20	21.92	0.30	48.49	38.14	44.35	41.89
12SEP90:13:45	38.59	880.00	3.41	192.40	22.37	0.00	48.62	38.13	44.64	42.16
12SEP90:14:00	38.82	860.00	3.17	210.90	19.62	0.00	48.67	38.22	44.58	42.35
12SEP90:14:15	38.91	834.00	3.41	178.40	19.41	0.00	48.88	38.38	45.08	43.05
12SEP90:14:30	39.50	816.00	3.27	196.70	16.83	0.00	48.11	38.45	44.50	42.72
12SEP90:14:45	39.94	787.00	2.62	202.80	15.29	0.00	48.52	38.42	44.90	43.63
12SEP90:15:00	39.88	750.00	3.36	187.50	15.36	0.00	48.00	38.53	44.10	43.44
12SEP90:15:15	40.38	708.00	3.33	218.90	14.53	0.00	47.06	38.30	42.44	42.88
12SEP90:15:30	40.07	675.70	2.08	246.30	14.87	0.00	47.22	38.72	42.38	43.70
12SEP90:15:45	40.66	632.50	3.36	281.90	10.84	0.00	46.11	38.66	41.04	42.88
12SEP90:16:00	40.34	580.10	2.49	259.20	12.67	0.00	45.94	38.50	41.08	43.64
12SEP90:16:15	40.99	532.50	2.53	261.30	11.31	0.00	46.92	38.59	40.26	42.88
12SEP90:16:30	40.37	481.40	3.17	181.30	11.51	0.00	45.32	38.67	40.53	43.84
12SEP90:16:45	40.50	431.20	2.48	163.80	11.40	0.00	44.36	37.97	39.71	43.52
12SEP90:17:00	40.73	387.70	2.99	180.70	10.72	0.00	43.14	38.01	38.99	42.63
12SEP90:17:15	41.71	335.90	2.87	241.00	7.94	0.00	41.82	38.20	38.54	42.08
12SEP90:17:30	41.37	221.00	2.58	235.50	7.82	0.00	41.11	37.75	38.43	42.22
12SEP90:17:45	41.03	165.60	2.94	279.30	7.87	0.00	40.22	37.73	37.99	41.90
12SEP90:18:00	41.26	162.20	1.34	226.00	7.74	0.00	39.21	37.99	37.41	41.10
12SEP90:18:15	40.69	116.00	2.34	207.30	8.03	0.00	37.99	37.54	37.03	40.96
12SEP90:18:30	39.22	62.93	4.80	176.70	10.45	0.00	36.63	36.21	36.46	40.67
12SEP90:18:45	38.66	19.39	5.70	172.70	11.30	0.00	35.44	35.95	35.68	39.81
12SEP90:19:00	38.18	3.51	6.00	172.60	12.56	0.00	34.82	35.71	35.47	39.35
12SEP90:19:15	37.80	0.79	6.19	172.00	14.27	0.00	34.46	35.49	35.44	39.01
12SEP90:19:30	38.11	1.10	7.06	171.60	20.47	0.00	34.19	35.22	35.36	38.68
12SEP90:19:45	36.50	0.39	7.47	170.90	23.67	0.00	33.98	34.98	35.22	38.33
12SEP90:20:00	36.49	2.23	6.62	173.40	25.03	0.00	33.63	34.66	34.93	37.92

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
12SEP90:20:15	35.68	0.42	6.26	178.30	26.31	0.00	33.12	34.25	34.47	37.46
12SEP90:20:30	35.64	0.86	6.43	183.60	27.59	0.00	32.74	33.84	34.12	37.00
12SEP90:20:45	35.37	0.59	5.40	183.00	29.08	0.00	32.41	33.57	33.81	36.60
12SEP90:21:00	35.05	0.93	4.73	186.60	30.99	0.00	31.85	32.92	33.36	36.13
12SEP90:21:15	34.59	0.34	3.62	186.00	32.95	0.00	31.68	32.80	33.18	35.74
12SEP90:21:30	34.20	0.61	6.62	168.00	34.52	0.00	31.09	32.17	32.71	35.38
12SEP90:21:45	33.63	0.71	5.11	173.10	36.28	0.00	30.68	31.76	32.34	34.98
12SEP90:22:00	33.07	0.25	5.04	174.60	37.67	0.00	30.37	31.50	32.12	34.70
12SEP90:22:15	33.01	0.29	4.79	163.00	38.25	0.00	29.67	30.51	31.48	34.33
12SEP90:22:30	32.75	0.29	3.81	170.10	38.53	0.00	29.51	30.45	31.34	34.00
12SEP90:22:45	32.53	0.29	5.17	175.00	38.47	0.00	29.48	30.56	31.24	33.66
12SEP90:23:00	32.17	0.29	4.17	169.20	38.72	0.00	29.26	30.44	31.05	33.34
12SEP90:23:15	31.93	0.44	3.31	173.30	38.92	0.00	28.64	29.76	30.48	32.95
12SEP90:23:30	31.68	0.29	2.50	173.40	39.25	0.00	27.96	28.84	29.90	32.66
12SEP90:23:45	31.41	0.42	2.17	172.40	39.82	0.00	27.48	28.31	29.45	32.41
13SEP90:00:00	31.15	0.42	1.98	113.90	40.39	0.00	27.31	28.30	29.31	32.17
13SEP90:00:15	31.35	0.20	2.54	130.30	40.07	0.00	27.33	29.01	29.31	31.97
13SEP90:00:30	31.07	0.27	2.34	123.10	40.01	0.00	27.11	28.84	29.13	31.71
13SEP90:00:45	30.88	0.15	2.14	128.80	39.53	0.00	26.60	28.45	28.69	31.39
13SEP90:01:00	30.82	0.17	1.93	119.90	39.09	0.00	26.36	28.03	28.45	31.16
13SEP90:01:15	30.79	0.05	0.73	81.90	39.13	0.00	26.23	27.71	28.22	30.86
13SEP90:01:30	30.29	0.42	2.78	99.30	40.38	0.00	25.95	28.05	27.97	30.62
13SEP90:01:45	30.42	0.20	3.02	109.20	38.96	0.00	25.76	27.82	27.82	30.39
13SEP90:02:00	30.15	0.00	3.13	112.40	39.08	0.00	25.44	27.73	27.56	30.15
13SEP90:02:15	30.18	-	2.56	118.10	38.19	0.00	25.37	27.64	27.46	29.96
13SEP90:02:30	30.42	-	2.69	130.60	37.29	0.00	25.03	27.28	27.14	29.75
13SEP90:02:45	30.26	0.05	2.66	153.70	36.79	0.00	24.84	26.90	26.98	29.56
13SEP90:03:00	29.83	0.00	2.47	153.40	37.42	0.00	24.99	26.80	26.98	29.39
13SEP90:03:15	29.41	0.05	2.04	135.60	38.03	0.00	24.58	26.36	26.63	29.04
13SEP90:03:30	29.25	0.15	1.94	135.60	38.27	0.00	24.12	25.77	26.25	28.78
13SEP90:03:45	29.30	0.42	1.32	176.60	38.14	0.00	23.83	25.36	25.93	28.44
13SEP90:04:00	28.83	0.44	1.93	161.80	38.75	0.00	23.38	24.66	25.54	28.29
13SEP90:04:15	28.51	0.59	2.09	163.00	39.18	0.00	23.17	24.54	25.39	28.20
13SEP90:04:30	28.39	0.66	1.38	150.80	39.42	0.00	23.16	24.47	25.37	28.01
13SEP90:04:45	28.22	0.74	1.23	133.90	39.65	0.00	22.99	24.26	25.13	27.81
13SEP90:05:00	28.28	0.81	1.24	88.20	39.68	0.00	22.86	24.00	24.97	27.61
13SEP90:05:15	28.36	0.88	0.33	107.20	39.36	0.00	22.65	23.81	24.72	27.30
13SEP90:05:30	28.21	0.88	0.57	121.30	39.22	0.00	22.70	23.95	24.66	26.98
13SEP90:05:45	27.79	0.83	1.09	89.20	39.72	0.00	22.48	23.53	24.43	26.95
13SEP90:06:00	27.40	0.93	1.22	93.40	40.32	0.00	22.52	23.91	24.46	27.01
13SEP90:06:15	28.04	1.89	2.97	110.90	40.91	0.00	23.12	24.82	24.92	26.85
13SEP90:06:30	28.00	7.19	2.12	121.90	41.28	0.00	23.11	24.65	24.77	26.57
13SEP90:06:45	28.09	24.15	1.57	133.50	41.15	0.00	23.05	24.44	24.70	26.62
13SEP90:07:00	28.38	58.1	1.58	110.90	40.66	0.00	23.53	24.55	25.00	26.99
13SEP90:07:15	28.73	105.70	1.13	98.00	40.06	0.00	24.59	25.05	25.60	27.35
13SEP90:07:30	28.85	153.20	1.49	102.00	39.83	0.00	25.84	25.82	26.20	27.74
13SEP90:07:45	29.40	203.70	1.04	95.10	39.15	0.00	27.38	26.89	27.18	28.07
13SEP90:08:00	30.35	256.60	0.78	122.20	38.01	0.00	29.09	27.97	27.98	28.61
13SEP90:08:15	31.20	310.00	0.65	133.90	37.10	0.00	30.81	28.82	28.53	29.25
13SEP90:08:30	31.59	363.70	1.08	124.10	36.28	0.00	32.17	29.51	29.18	30.09

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUO (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF MULK TANK (Deg. C)	TRACK OF MULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
13SEP90:08:45	31.51	414.90	1.44	118.90	36.20	0.00	33.60	30.23	29.90	30.76
13SEP90:09:00	32.23	464.90	2.17	143.50	35.61	0.00	35.04	30.95	30.70	31.65
13SEP90:09:15	32.72	513.40	2.62	140.30	35.19	0.00	36.39	31.37	31.28	32.19
13SEP90:09:30	33.00	560.40	2.47	146.50	34.53	0.00	37.69	32.11	32.00	32.87
13SEP90:09:45	33.11	604.60	2.44	157.20	34.58	0.00	38.68	32.38	32.58	33.78
13SEP90:10:00	33.35	646.10	2.91	172.90	34.05	0.00	39.89	33.01	33.46	34.23
13SEP90:10:15	34.11	685.50	2.83	168.70	33.20	0.00	40.92	33.42	34.20	34.77
13SEP90:10:30	33.73	722.00	2.41	168.70	33.56	0.00	42.00	33.52	35.12	35.32
13SEP90:10:45	35.63	754.00	3.46	163.20	32.35	0.00	43.14	34.46	36.33	35.99
13SEP90:11:00	35.29	785.00	4.15	161.60	31.84	0.00	43.09	34.20	36.82	36.57
13SEP90:11:15	35.26	810.00	4.06	147.60	31.51	0.00	44.55	34.97	38.18	37.44
13SEP90:11:30	35.07	835.00	4.71	161.40	30.52	0.00	45.19	35.09	39.07	37.89
13SEP90:11:45	35.35	849.00	3.74	173.70	30.69	0.00	45.42	35.53	39.82	37.97
13SEP90:12:00	35.54	865.00	4.68	176.60	31.39	0.00	46.01	35.58	40.57	38.62
13SEP90:12:15	35.54	877.00	3.77	181.90	31.04	0.00	46.03	35.44	41.02	39.30
13SEP90:12:30	35.85	884.00	3.47	188.50	29.32	0.00	46.99	35.92	42.22	39.64
13SEP90:12:45	35.79	892.00	4.04	175.30	27.05	0.00	46.82	35.94	42.31	39.96
13SEP90:13:00	36.63	886.00	2.56	174.20	26.85	0.00	47.77	36.24	43.06	40.65
13SEP90:13:15	36.77	880.00	3.80	181.50	26.61	0.00	48.23	36.69	43.70	41.48
13SEP90:13:30	37.15	866.00	3.22	188.90	27.49	0.00	48.68	36.80	43.78	41.68
13SEP90:13:45	37.39	854.00	3.21	181.30	26.62	0.00	48.03	36.89	43.72	41.65
13SEP90:14:00	38.00	837.00	4.07	188.30	25.39	0.00	48.44	37.70	44.31	41.94
13SEP90:14:15	37.80	814.00	5.39	174.10	24.05	0.00	48.35	37.48	44.12	42.38
13SEP90:14:30	38.51	791.00	4.59	176.80	22.42	0.00	46.78	36.88	43.19	41.56
13SEP90:14:45	38.15	763.00	5.09	176.00	20.68	0.00	47.09	37.70	43.89	41.94
13SEP90:15:00	38.44	731.00	3.66	185.90	19.22	0.00	46.49	37.61	43.36	42.42
13SEP90:15:15	38.67	695.50	3.51	201.30	17.92	0.00	46.35	37.49	42.18	42.31
13SEP90:15:30	38.67	654.90	4.69	190.00	17.46	0.00	45.76	37.33	41.12	42.31
13SEP90:15:45	38.62	614.70	3.63	215.70	16.69	0.00	45.34	37.39	40.55	42.11
13SEP90:16:00	38.91	567.30	4.53	206.20	16.58	0.00	44.41	37.28	40.05	42.10
13SEP90:16:15	38.67	521.00	4.03	198.00	16.46	0.00	44.24	31.14	39.76	42.29
13SEP90:16:30	38.49	470.40	3.86	193.10	16.70	0.00	42.83	36.79	38.36	41.30
13SEP90:16:45	38.63	416.30	3.79	201.60	16.48	0.00	42.08	36.83	38.49	41.49
13SEP90:17:00	38.50	364.10	3.66	205.70	16.21	0.00	41.62	36.67	38.53	41.49
13SEP90:17:15	38.30	310.70	4.54	186.10	17.23	0.00	40.37	36.06	37.55	40.82
13SEP90:17:30	37.91	226.90	4.08	194.20	17.52	0.00	39.72	35.98	37.64	40.93
13SEP90:17:45	37.85	151.40	4.53	184.70	18.07	0.00	38.61	35.62	37.11	40.41
13SEP90:18:00	37.68	145.60	4.58	188.20	18.25	0.00	37.67	35.33	36.61	40.16
13SEP90:18:15	37.31	105.00	4.48	185.30	18.84	0.00	36.49	34.88	35.88	39.45
13SEP90:18:30	37.07	50.58	4.28	183.00	19.16	0.00	35.34	34.39	35.41	38.95
13SEP90:18:45	36.85	16.59	4.17	187.30	18.95	0.00	34.13	33.99	34.67	38.33
13SEP90:19:00	36.55	3.70	3.91	175.20	19.57	0.00	33.38	33.67	34.26	37.90
13SEP90:19:15	36.26	3.19	3.91	166.80	18.97	0.00	32.58	33.22	33.83	37.55
13SEP90:19:30	35.75	1.15	4.43	177.10	21.03	0.00	32.22	33.13	33.65	37.24
13SEP90:19:45	35.69	1.20	5.26	183.50	25.53	0.00	32.31	33.31	33.75	36.86
13SEP90:20:00	35.15	1.91	4.94	184.20	26.78	0.00	31.84	32.87	33.35	36.60
13SEP90:20:15	34.69	0.96	4.98	178.90	26.86	0.00	31.45	32.58	33.02	35.98
13SEP90:20:30	3.37	0.96	4.33	182.40	27.14	0.00	31.14	32.28	32.76	35.61
13SEP90:20:45	33.93	1.18	4.32	178.10	28.33	0.00	30.81	32.02	32.46	35.18
13SEP90:21:00	33.48	0.98	4.70	187.20	30.61	0.00	30.45	31.59	32.13	34.79

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK CF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
13SEP90:21:15	33.17	1.10	4.71	187.50	31.71	0.00	30.14	31.33	31.84	34.38
13SEP90:21:30	32.58	1.05	5.23	188.10	33.02	0.00	29.82	30.95	31.56	34.05
13SEP90:21:45	32.36	1.13	5.49	184.00	33.95	0.00	29.70	30.83	31.41	33.70
13SEP90:22:00	31.72	0.98	5.34	183.60	34.43	0.00	29.26	30.38	31.01	33.22
13SEP90:22:15	31.77	1.03	4.62	178.20	34.66	0.00	28.87	30.00	30.62	32.88
13SEP90:22:30	31.47	0.86	3.74	180.50	35.32	0.00	28.41	29.54	30.20	32.48
13SEP90:22:45	31.09	0.88	1.60	158.20	36.07	0.00	27.80	28.96	29.66	32.14
13SEP90:23:00	30.75	1.20	1.55	119.30	36.77	0.00	27.38	28.88	29.30	31.85
13SEP90:23:15	30.50	1.25	2.58	145.90	37.50	0.00	27.70	29.12	29.60	31.72
13SEP90:23:30	30.22	1.05	3.91	135.70	39.82	0.00	27.75	29.16	29.57	31.54
13SEP90:23:45	30.19	0.96	4.76	143.20	41.02	0.00	27.69	29.01	29.43	31.32
14SEP90:00:00	30.36	0.86	5.16	148.00	41.92	0.00	27.39	28.63	29.13	30.98
14SEP90:00:15	29.81	0.96	3.74	155.40	43.23	0.00	26.93	28.17	28.72	30.73
14SEP90:00:30	29.57	1.23	2.77	179.70	44.39	0.00	26.38	27.16	28.22	30.38
14SEP90:00:45	29.36	1.18	3.33	186.00	44.21	0.00	26.37	27.20	28.15	30.10
14SEP90:01:00	29.17	1.03	3.05	174.90	49.88	0.00	26.20	27.19	27.95	29.91
14SEP90:01:15	28.91	1.03	2.13	121.30	52.30	0.00	25.71	26.76	27.50	29.59
14SEP90:01:30	28.91	0.91	2.03	133.20	53.05	0.00	25.24	26.15	27.09	29.36
14SEP90:01:45	28.90	0.71	1.36	142.70	52.95	0.00	25.02	25.84	26.89	29.15
14SEP90:02:00	28.86	0.76	0.44	149.90	51.89	0.00	24.76	25.61	26.65	28.98
14SEP90:02:15	28.94	0.56	0.38	167.90	51.06	0.00	24.42	25.31	26.35	28.73
14SEP90:02:30	28.84	0.59	0.43	170.00	51.30	0.00	24.18	25.09	26.13	28.51
14SEP90:02:45	28.73	0.44	0.55	124.90	51.86	0.00	24.14	25.00	26.04	28.37
14SEP90:03:00	28.77	0.42	0.41	150.20	51.62	0.00	23.94	24.76	25.84	28.16
14SEP90:03:15	28.53	0.54	0.43	112.70	53.12	0.00	23.91	24.80	25.70	27.94
14SEP90:03:30	28.30	0.39	0.69	104.30	53.75	0.00	23.98	24.94	25.71	27.92
14SEP90:03:45	28.16	0.39	1.17	90.90	53.78	0.00	24.51	25.32	26.05	28.02
14SEP90:04:00	28.64	0.47	2.19	103.30	50.77	0.00	24.91	25.46	26.25	28.05
14SEP90:04:15	28.49	0.44	1.66	106.20	50.77	0.00	24.68	25.49	25.97	27.59
14SEP90:04:30	28.45	0.29	2.10	96.70	51.12	0.00	24.30	25.40	25.70	27.22
14SEP90:04:45	28.38	0.29	2.90	100.40	51.44	0.00	24.00	24.91	25.42	27.27
14SEP90:05:00	28.27	0.29	2.04	112.80	51.33	0.00	23.82	24.96	25.31	27.08
14SEP90:05:15	28.42	0.57	2.30	121.40	51.02	0.00	23.74	25.14	25.24	27.02
14SEP90:05:30	28.43	0.29	2.41	136.20	50.79	0.00	24.85	27.01	26.07	27.33
14SEP90:05:45	28.52	0.34	2.71	124.40	50.62	0.00	24.81	26.91	26.01	27.01
14SEP90:06:00	28.64	0.42	2.09	132.00	49.94	0.00	24.35	26.06	25.62	26.92
14SEP90:06:15	28.48	0.91	1.87	151.70	50.13	0.00	24.38	25.45	25.55	27.05
14SEP90:06:30	28.48	5.07	2.62	167.50	50.44	0.00	25.29	26.51	26.20	27.28
14SEP90:06:45	28.25	24.49	2.13	170.20	51.31	0.00	25.33	26.09	26.25	27.34
14SEP90:07:00	28.40	54.60	2.39	139.60	51.85	0.00	26.36	26.88	26.86	27.74
14SEP90:07:15	28.64	73.30	3.17	144.80	53.98	0.00	27.13	27.51	27.35	27.88
14SEP90:07:30	28.85	120.20	3.47	136.60	56.91	0.00	27.87	27.80	27.82	28.28
14SEP90:07:45	29.64	271.90	3.63	146.50	55.94	0.00	30.24	28.88	29.34	29.44
14SEP90:08:00	29.93	355.70	3.64	147.40	55.45	0.00	31.84	29.55	30.09	30.11
14SEP90:08:15	30.13	416.80	2.41	169.20	54.86	0.00	33.38	29.98	30.50	30.88
14SEP90:08:30	30.48	433.80	2.46	191.00	53.41	0.00	34.09	30.01	30.64	31.24
14SEP90:08:45	30.49	420.30	2.36	191.70	53.28	0.00	33.72	29.61	29.91	31.03
14SEP90:09:00	30.60	452.70	1.83	194.30	52.74	0.00	34.60	29.78	30.53	31.67
14SEP90:09:15	31.04	501.10	0.70	179.40	51.66	0.00	36.91	30.83	31.86	32.59
14SEP90:09:30	.	.	.	.	.	.	37.92	31.13	32.14	33.17

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF	TRACK OF	BACKGROUND ROCK & SAND	BACKGROUND BUSHES & TREES
							HULK TANK (Deg. C)	HULK TANK (Deg. C)	(Deg. C)	(Deg. C)
14SEP90:09:45	.	.	.	.	.	.	38.50	31.13	32.62	33.95
14SEP90:10:00	.	.	.	.	.	.	38.86	31.38	32.92	34.01
14SEP90:10:15	.	.	.	.	.	.	40.07	32.24	33.98	34.57
14SEP90:10:30	.	.	.	.	.	.	40.81	32.69	34.68	35.08
14SEP90:10:45	.	.	.	.	.	.	41.73	33.18	35.69	35.75
14SEP90:11:00	.	.	.	.	.	.	43.19	33.34	36.86	36.58
14SEP90:11:15	.	.	.	.	.	.	43.32	33.28	37.00	36.41
14SEP90:11:30	.	.	.	.	.	.	.	.	34.00	37.47

**APPENDIX B: THERMAL SCENE METRICS**

TIME	PURPOSE	CONFLO (Degrees)	ELEV	AZIMUTH	TMP_MEAN (Deg. C)	TMP_MIN (Deg. C)	TMP_MAX (Deg. C)	TMP_05 (Deg. C)	TMP_MED (Deg. C)	TMP_95 (Deg. C)	RNG90 (Deg. C)	TMP_STD (Deg. C)	T_SKew (DIMENTION)				T_TENTRO (DIMENTION)				T_REYNO (DIMENTION)			
													SIGN.	SIGN.	LESS	T_CLOUD	SIGN.	SIGN.	LESS	T_CLOUD	SIGN.	SIGN.	LESS	
(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)		
06SEP90:05:59 TRAINING	1	162.000	91.333	26.45	25.22	25.88	26.50	27.02	28.40	1.14	0.38	0.03	2.06	0.29	0.23	0.09	0.26	0.23	0.27	0.12	0.23	0.16	0.32	
06SEP90:07:01 TRAINING	1	164.500	91.333	26.99	25.77	26.31	27.07	27.67	28.74	1.36	0.47	0.24	2.13	0.32	0.27	0.17	0.45	0.32	0.37	0.13	0.17	0.10	0.23	
06SEP90:07:03 TRAINING	1	167.000	91.333	27.26	26.20	26.67	27.35	27.75	28.18	1.08	0.35	0.55	1.90	0.29	0.27	0.12	0.12	0.16	0.12	0.17	0.11	0.12	0.32	
06SEP90:07:06 TRAINING	1	169.500	91.333	27.54	26.62	27.05	27.65	28.02	29.74	0.97	0.36	0.08	1.86	0.36	0.36	0.01	0.18	0.16	0.20	0.18	0.16	0.18	0.36	
06SEP90:07:09 TRAINING	1	172.000	91.333	28.08	27.05	27.49	28.24	28.67	29.84	1.18	0.42	0.32	2.06	0.36	0.36	0.10	0.18	0.20	0.22	0.16	0.18	0.18	0.36	
06SEP90:07:10 TRAINING	1	174.500	91.333	28.40	27.11	27.65	28.45	29.36	30.58	1.72	0.54	0.20	2.29	0.36	0.31	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.36	
06SEP90:07:11 TRAINING	1	177.000	91.333	28.45	27.32	27.70	28.56	29.26	29.68	1.55	0.48	0.19	2.23	0.42	0.13	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.30	
06SEP90:07:11 TRAINING	1	179.500	91.333	28.62	27.16	27.81	28.67	29.36	29.84	1.55	0.54	0.26	2.28	0.36	0.28	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.30	
06SEP90:07:12 TRAINING	1	182.000	91.333	28.72	27.70	28.19	28.83	29.26	29.42	1.07	0.36	0.52	1.85	0.24	0.23	0.12	0.24	0.23	0.23	0.12	0.24	0.12	0.24	
06SEP90:07:13 TRAINING	1	184.500	91.333	28.88	27.81	28.35	28.94	29.42	29.58	1.07	0.36	0.41	1.88	0.24	0.38	0.12	0.30	0.24	0.24	0.18	0.24	0.12	0.30	
06SEP90:10:50 DEMONSTRATION	-	185.000	91.250	35.67	33.52	36.24	35.06	39.89	42.34	5.65	1.92	1.68	3.08	1.58	0.22	0.34	1.92	0.22	0.22	0.22	0.22	0.22	0.22	0.34
06SEP90:10:52 DEMONSTRATION	-	187.500	91.250	36.08	33.93	36.36	35.47	40.29	42.05	5.96	2.15	1.21	2.15	1.70	0.19	0.19	1.81	0.19	0.19	0.19	0.19	0.19	0.19	0.34
06SEP90:10:54 DEMONSTRATION	-	190.000	91.250	36.18	33.93	36.36	35.67	39.89	42.05	5.55	2.03	1.01	3.32	1.47	0.27	0.36	1.81	0.27	0.27	0.27	0.27	0.27	0.27	0.34
06SEP90:10:56 DEMONSTRATION	-	192.500	91.250	35.88	36.04	36.36	35.57	39.20	41.66	4.85	1.70	1.30	3.17	1.25	0.21	0.23	1.47	0.21	0.21	0.21	0.21	0.21	0.21	0.34
06SEP90:10:58 DEMONSTRATION	-	195.000	91.250	35.88	33.83	34.34	35.78	38.90	41.37	4.55	1.58	1.01	3.21	1.36	0.13	0.13	1.46	0.13	0.13	0.13	0.13	0.13	0.13	0.47
06SEP90:11:00 DEMONSTRATION	-	197.500	91.250	36.18	33.73	34.24	35.98	39.20	42.93	4.95	1.70	1.17	3.34	1.36	0.23	0.23	1.46	0.23	0.23	0.23	0.23	0.23	0.23	0.68
06SEP90:11:02 DEMONSTRATION	-	200.000	91.250	36.49	36.16	35.55	36.28	39.39	43.60	4.86	1.70	1.14	3.33	1.47	0.14	0.14	1.47	0.14	0.14	0.14	0.14	0.14	0.14	0.68
06SEP90:11:06 DEMONSTRATION	-	202.500	91.250	35.98	36.06	36.55	35.78	38.50	39.99	3.95	1.25	1.02	3.06	1.36	0.09	0.09	1.13	0.09	0.09	0.09	0.09	0.09	0.09	0.36
06SEP90:11:09 DEMONSTRATION	-	205.000	91.250	35.47	33.93	34.55	35.37	37.60	39.39	3.05	1.02	1.28	2.81	1.13	0.03	0.03	1.13	0.03	0.03	0.03	0.03	0.03	0.03	0.34
06SEP90:11:11 DEMONSTRATION	-	207.500	91.250	35.37	33.83	34.34	34.96	37.90	43.51	5.55	1.58	3.02	2.76	1.02	0.32	0.23	0.68	0.23	0.23	0.23	0.23	0.23	0.23	0.51
07SEP90:08:18 TRAINING	2	162.000	91.333	33.12	31.09	31.77	33.28	34.16	35.74	2.39	0.73	0.39	2.65	0.68	0.07	0.23	0.51	0.07	0.07	0.07	0.07	0.07	0.07	0.51
07SEP90:08:19 TRAINING	2	164.500	91.333	33.33	31.19	32.19	33.38	34.31	35.44	2.12	0.68	0.32	2.56	0.62	0.08	0.23	0.56	0.08	0.08	0.08	0.08	0.08	0.08	0.56
07SEP90:08:20 TRAINING	2	167.000	91.333	33.56	29.98	32.34	33.64	34.57	37.41	2.22	0.73	0.58	2.60	0.68	0.04	0.28	0.79	0.04	0.04	0.04	0.04	0.04	0.04	0.56
07SEP90:08:21 TRAINING	2	169.500	91.333	33.56	31.25	32.50	33.64	34.52	37.01	2.02	0.68	0.36	2.56	0.62	0.10	0.23	0.56	0.10	0.10	0.10	0.10	0.10	0.10	0.56
07SEP90:08:22 TRAINING	2	172.000	91.333	33.59	31.61	32.66	33.64	34.62	35.85	1.96	0.62	0.15	2.52	0.62	0.01	0.23	0.56	0.01	0.01	0.01	0.01	0.01	0.01	0.56
07SEP90:08:23 TRAINING	2	174.500	91.333	33.64	31.66	32.76	33.64	34.72	37.26	1.96	0.68	0.73	2.56	0.56	0.14	0.28	0.56	0.14	0.14	0.14	0.14	0.14	0.14	0.56
07SEP90:08:24 TRAINING	2	177.000	91.333	31.87	33.02	33.74	34.62	36.86	4.60	0.56	0.65	2.37	0.51	0.13	0.17	0.45	0.13	0.13	0.13	0.13	0.13	0.13	0.45	
07SEP90:08:25 TRAINING	2	179.500	91.339	33.74	30.30	33.02	33.74	34.57	36.81	1.55	0.62	0.45	2.35	0.51	0.11	0.17	0.51	0.11	0.11	0.11	0.11	0.11	0.11	0.45
07SEP90:08:26 TRAINING	2	182.000	91.333	33.49	30.24	32.71	33.54	34.41	35.69	1.71	0.62	0.46	2.43	0.51	0.17	0.17	0.56	0.17	0.17	0.17	0.17	0.17	0.17	0.45
07SEP90:08:27 TRAINING	2	184.500	91.333	33.43	31.61	32.66	33.38	34.62	36.96	1.96	0.73	0.85	2.54	0.40	0.47	0.17	0.51	0.47	0.47	0.47	0.47	0.47	0.47	0.51
07SEP90:10:35 TRAINING	2	182.000	91.333	40.63	35.83	38.40	40.33	43.94	45.76	5.56	1.88	0.55	3.54	1.40	0.25	0.38	0.97	0.25	0.25	0.25	0.25	0.25	0.25	0.97
07SEP90:10:36 TRAINING	2	184.500	91.333	40.78	36.44	38.40	40.43	44.18	46.05	5.78	2.04	0.51	3.57	1.72	0.16	0.43	1.19	0.16	0.16	0.16	0.16	0.16	0.16	1.19
07SEP90:10:37 TRAINING	2	187.000	91.333	40.83	37.60	38.60	40.53	43.99	45.67	5.39	1.99	0.44	3.48	1.45	0.27	0.49	1.19	0.27	0.27	0.27	0.27	0.27	0.27	1.19
07SEP90:10:38 TRAINING	2	189.500	91.333	40.68	36.89	38.40	40.43	44.13	46.74	5.76	2.04	0.55	3.56	1.51	0.26	0.43	1.35	0.26	0.26	0.26	0.26	0.26	0.26	1.35
07SEP90:10:39 TRAINING	2	172.000	91.333	40.93	37.50	38.65	40.68	44.18	46.24	5.53	1.94	0.55	3.52	1.78	0.10	0.43	1.29	0.10	0.10	0.10	0.10	0.10	0.10	1.29
07SEP90:10:40 TRAINING	2	174.500	91.333	40.68	37.40	38.60	40.33	44.13	46.28	5.56	1.88	1.03	3.47	1.62	0.14	0.38	1.35	0.14	0.14	0.14	0.14	0.14	0.14	1.35
07SEP90:10:41 TRAINING	2	177.000	91.333	40.83	37.65	38.65	40.38	45.33	46.28	6.68	2.10	1.15	3.50	2.10	0.01	0.54	1.78	0.01	0.01	0.01	0.01	0.01	0.01	1.78

TIME	PURPOSE	CONFIG (Degrees)	ELEV	AZIMUTH	TMP_MEAN	TMP_MIN	TMP_05	TMP_MED	TMP_95	TMP_MAX	TMP_RNG00	TMP_SD00	TMP_SD01	T_CLOUD	T_LESS	T_CLOUD0	T_LESS0	T_SKEW	T_ENTR0	T_RENO
		(Degrees)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)									
07SEP00:10:42	TRAINING	2	179.500	91.333	40.73	37.75	38.70	40.29	44.66	46.09	5.96	1.99	0.98	3.47	1.83	0.08	0.43	1.56	0.08	
07SEP00:10:43	TRAINING	2	182.000	91.333	40.19	37.60	38.55	39.84	43.41	46.24	4.86	1.67	1.28	3.29	1.56	0.05	0.27	1.35	0.08	
07SEP00:10:44	TRAINING	2	184.500	91.333	39.99	36.94	38.60	39.49	43.65	46.19	5.05	1.72	1.47	3.16	1.19	0.31	0.27	1.56	0.08	
07SEP00:12:00	TESTING	7	235.284	92.337	45.93	40.12	41.30	45.65	54.00	55.89	12.70	4.17	0.86	4.15	3.24	0.23	0.74	2.41	0.08	
08SEP00:03:16	TESTING	7	235.284	92.336	31.15	28.39	29.25	31.15	33.76	38.43	4.51	1.40	0.45	3.15	1.05	0.19	0.35	0.70	0.08	
08SEP00:04:09	TESTING	7	235.284	92.336	31.05	28.18	29.03	31.05	33.55	37.53	4.52	1.40	0.41	3.16	1.05	0.21	0.35	0.70	0.08	
08SEP00:03:21	TESTING	7	235.284	92.336	30.94	28.01	28.81	30.94	33.55	36.72	4.73	1.37	0.37	3.16	1.03	0.22	0.23	0.63	0.08	
08SEP00:03:26	TESTING	7	235.284	92.336	30.50	27.56	28.32	30.55	33.17	35.84	4.85	1.39	0.37	3.17	1.04	0.25	0.23	0.64	0.08	
08SEP00:03:38	TESTING	7	235.284	92.336	30.55	27.45	28.26	30.55	33.43	35.74	5.16	1.51	0.42	3.21	1.04	0.29	0.23	0.64	0.08	
08SEP00:03:56	TESTING	7	235.284	92.336	30.24	27.13	27.94	30.24	33.22	35.13	5.28	1.51	0.47	3.20	1.10	0.29	0.23	0.64	0.08	
08SEP00:04:09	TESTING	7	235.284	92.339	29.65	26.75	27.62	29.70	32.18	34.30	4.56	1.35	0.40	3.08	1.05	0.22	0.23	0.65	0.08	
08SEP00:04:33	TESTING	8	235.277	92.339	29.70	26.75	27.62	29.70	32.44	34.20	4.83	1.35	0.47	3.13	1.05	0.22	0.23	0.65	0.08	
08SEP00:05:04	TESTING	8	235.277	92.339	29.91	27.01	27.88	29.91	32.64	34.55	4.76	1.38	0.59	3.16	1.10	0.21	0.23	0.64	0.08	
08SEP00:05:13	TESTING	8	235.277	92.339	29.91	27.01	27.82	29.91	32.69	34.40	4.87	1.38	0.61	3.14	1.10	0.22	0.23	0.64	0.08	
08SEP00:05:22	TESTING	8	235.277	92.339	29.06	26.25	27.07	29.06	31.80	34.40	4.74	1.33	0.64	3.08	0.98	0.25	0.23	0.58	0.08	
08SEP00:05:43	TESTING	8	185.000	91.250	30.29	27.02	27.99	30.24	32.65	33.01	4.66	1.62	0.07	3.29	0.70	0.56	0.17	0.47	0.08	
08SEP00:06:45	TESTING	4	187.500	91.250	29.97	26.97	27.78	29.81	32.55	32.86	4.77	1.62	0.22	3.25	0.76	0.54	0.23	0.58	0.08	
08SEP00:06:46	TESTING	4	190.000	91.250	29.81	27.13	27.94	29.55	32.39	32.55	4.45	1.45	0.43	3.13	0.76	0.48	0.23	0.52	0.08	
08SEP00:06:47	TESTING	4	192.500	91.250	29.81	27.51	28.21	28.60	32.18	32.60	3.97	1.22	0.62	3.02	0.70	0.42	0.23	0.52	0.08	
08SEP00:06:48	TESTING	4	195.000	91.250	29.76	27.35	28.26	29.71	31.87	32.39	3.60	1.10	0.53	2.98	0.76	0.31	0.23	0.47	0.08	
08SEP00:06:49	TESTING	4	197.500	91.250	29.76	27.56	28.42	29.71	31.66	32.44	3.23	0.99	0.77	2.80	0.70	0.29	0.23	0.47	0.08	
08SEP00:06:51	TESTING	4	200.000	91.250	29.76	27.78	28.53	29.76	31.61	32.34	3.07	0.93	0.81	2.73	0.70	0.27	0.23	0.47	0.08	
08SEP00:06:52	TESTING	4	202.500	91.250	29.97	28.10	29.01	29.87	31.76	32.34	2.75	0.81	1.03	2.55	0.76	0.08	0.17	0.41	0.08	
08SEP00:06:53	TESTING	4	205.000	91.250	30.18	28.53	29.33	30.08	31.71	32.23	2.38	0.76	0.95	2.51	0.64	0.14	0.17	0.35	0.08	
08SEP00:06:54	TESTING	5	185.000	91.250	32.15	29.25	30.68	32.15	33.60	34.58	2.92	0.97	-0.04	2.90	0.52	0.49	0.17	0.40	0.08	
08SEP00:07:39	TESTING	5	187.500	91.250	31.94	29.30	30.21	32.05	33.50	34.12	3.30	1.03	-0.31	2.96	0.57	0.48	0.17	0.49	0.08	
08SEP00:07:40	TESTING	5	190.000	91.250	31.89	29.30	30.42	31.99	33.24	33.60	2.83	0.86	-0.51	2.76	0.52	0.44	0.17	0.46	0.08	
08SEP00:07:41	TESTING	5	192.500	91.250	31.84	29.41	30.64	31.84	32.98	33.50	2.14	0.69	-0.20	2.58	0.52	0.30	0.17	0.40	0.08	
08SEP00:07:42	TESTING	5	195.000	91.250	31.78	29.30	30.48	31.84	32.78	33.35	2.09	0.69	-0.56	2.54	0.52	0.20	0.17	0.40	0.08	
08SEP00:07:43	TESTING	5	197.500	91.250	31.68	29.57	30.79	31.73	32.46	33.35	1.68	0.57	-0.60	2.36	0.40	0.27	0.17	0.40	0.08	
08SEP00:07:44	TESTING	5	200.000	91.250	31.68	29.83	30.84	31.73	32.41	32.93	1.57	0.52	-0.57	2.25	0.40	0.24	0.17	0.46	0.08	
08SEP00:07:45	TESTING	5	202.500	91.250	31.78	30.05	31.26	31.84	32.46	32.98	1.20	0.40	-0.45	2.06	0.40	0.09	0.17	0.34	0.08	
08SEP00:07:46	TESTING	5	205.000	91.250	31.59	30.58	31.52	31.99	32.62	32.88	1.10	0.40	0.01	1.95	0.34	0.13	0.12	0.29	0.08	
08SEP00:08:10	TESTING	6	185.000	91.250	34.36	31.61	33.43	34.52	35.03	36.46	1.59	0.56	-1.20	2.27	0.45	0.21	0.17	0.45	0.08	
08SEP00:08:11	TESTING	6	187.500	91.250	34.57	31.66	33.97	34.82	35.23	37.46	2.27	0.73	-1.67	2.37	0.51	0.34	0.23	0.73	0.08	
08SEP00:08:12	TESTING	6	190.000	91.250	34.52	31.77	33.18	34.72	35.18	35.85	2.01	0.62	-1.86	2.25	0.40	0.40	0.17	0.45	0.08	
08SEP00:08:13	TESTING	6	192.500	91.250	34.62	31.87	33.95	34.77	35.18	36.35	2.14	0.51	-1.56	2.14	0.45	0.15	0.17	0.40	0.08	

TIME	PURPOSE	CONFIG (Degrees)	AZIMUTH	ELEV	IMP_MEAN IMP_MIN IMP_MAX			IMP_05 IMP_ME0 IMP_95			TMP_MAX TMP_SDIV			S1ON_SION S1ON_LESS			CLUTR LESS CM175 CM195			REYNOLDS (DIMEN.)		
					(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	
08SEP00:08:15	TESTING	6	195.000	91.250	36.57	31.66	33.74	36.77	35.13	36.66	1.39	0.56	-2.00	2.11	0.51	0.06	0.17	0.51	0.17	0.45	0.17	
08SEP00:08:16	TESTING	6	197.500	91.250	34.57	31.82	33.05	34.72	35.10	36.66	1.34	0.51	-1.16	2.10	0.40	0.26	0.17	0.45	0.17	0.51	0.17	
08SEP00:08:17	TESTING	6	200.000	91.250	34.62	32.50	33.95	34.77	35.13	36.46	1.18	0.45	-0.97	2.02	0.36	0.27	0.17	0.51	0.17	0.51	0.17	
08SEP00:08:18	TESTING	6	202.500	91.250	34.62	32.92	34.11	34.67	35.08	36.30	0.97	0.34	-0.78	1.86	0.28	0.17	0.17	0.47	0.17	0.51	0.34	
08SEP00:08:19	TESTING	6	205.000	91.250	34.57	32.86	34.16	34.62	34.98	36.00	0.82	0.28	-0.79	1.74	0.23	0.20	0.11	0.28	0.11	0.45	0.17	
08SEP00:08:53	TESTING	9	190.000	91.000	48.38	47.13	47.51	48.50	48.87	49.13	1.36	0.65	-0.87	2.05	0.35	0.21	0.13	0.38	0.13	0.38	0.13	
08SEP00:09:54	TESTING	9	192.500	91.000	48.64	47.42	47.96	48.71	49.08	49.24	1.12	0.38	-0.94	1.90	0.30	0.20	0.13	0.33	0.13	0.33	0.13	
08SEP00:09:55	TESTING	9	195.000	91.000	48.97	47.89	48.36	49.03	49.43	49.59	1.07	0.35	-0.61	1.93	0.30	0.12	0.13	0.28	0.13	0.33	0.13	
08SEP00:08:56	TESTING	9	197.500	91.000	49.20	47.09	48.52	49.24	49.73	49.92	1.21	0.42	-1.35	2.03	0.30	0.15	0.15	0.33	0.15	0.33	0.15	
08SEP00:08:57	TESTING	9	200.000	91.000	49.43	47.58	48.85	49.52	49.90	50.06	1.05	0.38	-1.36	1.89	0.28	0.25	0.13	0.30	0.13	0.30	0.13	
08SEP00:08:58	TESTING	9	202.500	91.000	50.06	49.13	49.53	50.13	50.43	50.73	0.90	0.30	-0.78	1.72	0.25	0.16	0.12	0.30	0.12	0.30	0.12	
08SEP00:08:59	TESTING	9	205.000	91.000	50.43	48.36	50.02	50.50	50.73	50.99	0.72	0.27	-2.00	1.57	0.20	0.27	0.12	0.35	0.12	0.35	0.12	
08SEP00:09:22	TRAINING	1	162.000	91.333	31.10	28.39	29.51	31.10	32.93	35.20	3.42	1.06	-0.45	3.02	0.80	0.30	0.33	0.55	0.15	0.55	0.15	
10SEP00:01:24	TRAINING	1	164.500	91.333	31.10	28.50	29.41	31.10	32.68	35.25	3.47	1.20	-0.72	3.07	0.86	0.30	0.33	0.57	0.15	0.57	0.15	
10SEP00:01:25	TRAINING	1	167.000	91.333	30.84	28.50	29.25	30.89	32.36	33.19	3.11	0.97	-0.12	2.91	0.74	0.21	0.23	0.59	0.15	0.59	0.15	
10SEP00:01:26	TRAINING	1	169.500	91.333	30.84	28.50	29.25	30.89	32.46	33.91	3.22	1.03	-0.00	2.97	0.91	0.12	0.29	0.74	0.15	0.74	0.15	
10SEP00:01:27	TRAINING	1	172.000	91.333	30.79	28.12	29.14	30.84	32.52	34.27	3.37	1.08	-0.10	3.07	0.86	0.21	0.29	0.80	0.15	0.80	0.15	
10SEP00:01:29	TRAINING	1	174.500	91.333	31.37	28.23	29.25	31.05	34.84	35.86	5.59	1.76	-0.72	3.41	0.91	0.48	0.23	0.69	0.15	0.69	0.15	
10SEP00:01:30	TRAINING	1	177.000	91.333	31.42	28.07	29.09	31.51	34.38	35.35	5.29	1.71	-0.37	3.43	1.03	0.39	0.29	0.63	0.15	0.63	0.15	
10SEP00:01:31	TRAINING	1	179.500	91.333	31.69	28.18	29.57	31.78	34.63	35.60	5.07	1.59	-0.24	3.41	0.91	0.42	0.29	0.69	0.15	0.69	0.15	
10SEP00:01:32	TRAINING	1	182.000	91.333	32.05	29.03	30.10	31.99	34.53	34.94	4.43	1.42	-0.27	3.25	0.80	0.45	0.23	0.57	0.15	0.57	0.15	
10SEP00:01:33	TRAINING	1	184.500	91.333	32.05	29.09	30.10	32.10	34.33	34.69	4.23	1.37	-0.11	3.21	0.80	0.44	0.23	0.57	0.15	0.57	0.15	
10SEP00:04:27	TRAINING	2	162.000	91.333	30.27	27.44	28.51	30.27	32.22	34.34	3.70	1.16	-0.39	3.10	0.81	0.30	0.23	0.64	0.15	0.64	0.15	
10SEP00:04:28	TRAINING	2	164.500	91.333	30.22	27.60	28.41	30.22	32.06	34.44	3.65	1.27	-0.66	3.12	0.87	0.30	0.23	0.58	0.15	0.58	0.15	
10SEP00:04:29	TRAINING	2	167.000	91.333	30.06	27.60	28.46	30.17	31.69	34.90	3.23	1.04	-0.05	2.95	0.81	0.22	0.23	0.69	0.15	0.69	0.15	
10SEP00:04:30	TRAINING	2	169.500	91.333	30.17	27.65	28.46	30.22	31.80	34.19	3.34	1.04	-0.02	3.01	0.93	0.15	0.29	0.75	0.15	0.75	0.15	
10SEP00:04:31	TRAINING	2	172.000	91.333	30.11	27.38	28.41	30.22	31.85	33.26	3.44	1.16	-0.00	3.10	0.87	0.23	0.29	0.81	0.15	0.81	0.15	
10SEP00:04:32	TRAINING	2	174.500	91.333	30.70	27.38	28.41	30.43	33.98	34.96	5.57	1.79	-0.56	3.44	0.98	0.47	0.23	0.75	0.15	0.75	0.15	
10SEP00:04:33	TRAINING	2	177.000	91.333	30.70	27.17	28.19	30.59	33.67	34.55	5.48	1.84	-0.22	3.49	1.06	0.44	0.29	0.69	0.15	0.69	0.15	
10SEP00:04:34	TRAINING	2	179.500	91.333	31.06	27.22	28.51	31.01	33.88	34.44	5.36	1.73	-0.09	3.47	0.93	0.46	0.29	0.75	0.15	0.75	0.15	
10SEP00:04:35	TRAINING	2	182.000	91.333	31.22	27.98	29.05	31.27	33.83	34.19	4.78	1.56	-0.14	3.32	0.81	0.49	0.23	0.58	0.15	0.58	0.15	
10SEP00:04:36	TRAINING	2	184.500	91.333	31.12	28.09	28.78	31.01	33.72	34.03	4.94	1.73	-0.17	3.35	0.81	0.55	0.23	0.58	0.15	0.58	0.15	
10SEP00:04:46	TRAINING	3	162.000	90.750	30.10	27.16	28.18	30.16	32.15	34.43	3.97	1.26	-0.20	3.16	0.69	0.46	0.23	0.58	0.15	0.58	0.15	
10SEP00:05:48	TRAINING	3	164.500	90.750	30.21	27.21	28.07	30.21	32.41	34.48	4.34	1.46	-0.47	3.20	0.85	0.47	0.24	0.73	0.15	0.73	0.15	
10SEP00:05:49	TRAINING	3	167.000	90.750	29.89	27.21	28.07	30.10	31.68	32.41	3.61	1.22	-0.20	3.02	0.73	0.42	0.24	0.73	0.15	0.73	0.15	
10SEP00:05:50	TRAINING	3	169.500	90.750	30.10	27.64	28.29	30.31	32.00	33.35	3.71	1.22	-0.13	3.09	0.85	0.29	0.37	0.85	0.15	0.85	0.15	
10SEP00:05:52	TRAINING	3	172.000	90.750	30.10	27.32	28.29	30.31	32.10	33.56	3.61	1.34	-0.03	3.17	0.85	0.34	0.24	0.85	0.15	0.85	0.15	

TIME	PURPOSE	CONFIG (degrees)	ELEV (degrees)	AZIMUTH (degrees)	TMP_MEAN (Deg. C)	TMP_MIN (Deg. C)	TMP_MAX (Deg. C)	TMP_MED (Deg. C)	TMP_95 (Deg. C)	TMP_99 (Deg. C)	TMP_SDIV (Deg. C)	T_RNG90 (Deg. C)	T_RNG90 (Deg. C)	T_CHTS (Deg. C)	T_CHTS (Deg. C)	T_ENTR (Deg. C)	T_ENTR (Deg. C)	T_SKW (Deg. C)	T_SKW (Deg. C)	TREYNO (DIMENTIONLESS)
10SEP90:05:53	TRAINING	3	174.500	90.750	30.95	27.21	28.29	30.74	36.48	35.51	6.20	2.06	0.45	3.55	0.85	0.61	0.24	0.73		
10SEP90:05:54	TRAINING	3	177.000	90.750	30.53	26.99	28.07	30.42	33.66	34.69	5.59	1.96	0.33	3.49	0.85	0.56	0.37	0.85		
10SEP90:05:56	TRAINING	3	179.500	90.750	30.14	26.49	27.79	30.04	32.97	33.90	5.18	1.79	0.24	3.43	0.72	0.56	0.36	0.84		
10SEP90:05:59	TRAINING	3	182.000	90.750	30.25	27.16	28.33	30.25	32.87	33.39	4.54	1.44	0.28	3.26	0.60	0.62	0.36	0.60		
10SEP90:06:00	TRAINING	3	184.500	90.750	30.35	27.47	28.54	30.35	32.87	32.97	4.33	1.44	0.21	3.20	0.60	0.58	0.24	0.60		
10SEP90:06:07	TRAINING	1	162.000	91.333	33.65	31.83	32.56	33.70	34.84	37.42	2.27	0.79	0.50	2.67	0.79	-0.01	0.23	0.57		
10SEP90:06:08	TRAINING	1	164.500	91.333	33.86	31.57	32.88	33.96	34.94	38.08	2.06	0.68	0.18	2.61	0.62	0.08	0.23	0.57		
10SEP90:06:09	TRAINING	1	167.000	91.333	33.86	30.68	32.56	33.96	34.99	36.26	2.43	0.79	-0.53	2.70	0.74	0.08	0.28	0.74		
10SEP90:06:11	TRAINING	1	169.500	91.333	33.65	31.15	32.46	33.76	34.73	40.02	2.27	0.74	0.19	2.66	0.57	0.23	0.23	0.51		
10SEP90:06:13	TRAINING	1	172.000	91.333	33.24	31.20	31.94	33.34	34.68	36.16	2.76	0.91	0.07	2.88	0.51	0.44	0.23	0.51		
10SEP90:06:14	TRAINING	1	174.500	91.333	33.29	31.47	32.25	33.13	34.89	37.47	2.64	0.91	0.95	2.79	0.57	0.38	0.23	0.57		
10SEP90:06:15	TRAINING	1	177.000	91.333	33.24	31.94	32.67	33.24	34.22	36.72	1.55	0.51	1.10	2.28	0.40	0.23	0.17	0.40		
10SEP90:06:16	TRAINING	1	179.500	91.333	33.24	30.78	32.62	33.19	34.22	37.27	1.60	0.62	1.79	2.36	0.51	0.22	0.17	0.57		
10SEP90:06:18	TRAINING	1	182.000	91.333	35.55	30.78	32.88	35.55	34.27	35.70	1.39	0.51	-0.45	2.24	0.40	0.17	0.17	0.45		
10SEP90:06:19	TRAINING	1	184.500	91.333	33.96	31.96	33.24	33.96	34.73	36.21	1.49	0.51	-0.01	2.20	0.28	0.44	0.17	0.45		
12SEP90:04:16	TESTING	1	185.000	91.250	31.76	27.27	31.53	34.70	35.36	5.97	2.12	0.02	3.58	1.03	0.51	0.34	0.86			
12SEP90:04:19	TESTING	1	187.500	91.250	30.74	26.35	27.76	30.37	34.18	34.59	6.42	2.17	0.25	3.57	1.09	0.49	0.40	0.80		
12SEP90:04:21	TESTING	1	190.000	91.250	30.31	26.23	27.64	30.00	33.76	34.28	6.12	2.06	0.42	3.45	1.10	0.46	0.49	0.85		
12SEP90:04:22	TESTING	1	192.500	91.250	30.31	26.45	28.18	30.10	33.56	34.28	5.37	1.82	0.62	3.35	1.10	0.38	0.49	0.73		
12SEP90:04:23	TESTING	1	195.000	91.250	30.31	26.56	28.29	30.10	33.45	34.07	5.16	1.70	0.66	3.32	1.22	0.27	0.49	0.65		
12SEP90:04:25	TESTING	1	197.500	91.250	30.42	27.04	28.71	30.31	33.29	34.17	4.58	1.31	0.95	3.11	1.14	0.15	0.34	0.74		
12SEP90:04:26	TESTING	1	200.000	91.250	30.31	27.15	28.61	30.31	32.83	34.07	4.22	1.25	0.77	3.11	1.08	0.15	0.34	0.69		
11SEP90:04:42	TESTING	2	185.000	91.250	31.37	26.72	28.29	31.37	34.33	34.94	6.06	2.10	-0.06	3.61	1.03	0.51	0.34	0.80		
11SEP90:04:43	TESTING	2	187.500	91.250	30.84	26.50	27.69	30.42	34.17	34.63	6.48	2.16	0.17	3.60	1.08	0.51	0.34	0.80		
11SEP90:04:43	TESTING	2	190.000	91.250	30.68	26.50	28.02	30.26	33.97	34.53	5.95	1.93	0.38	3.49	1.03	0.47	0.34	0.74		
11SEP90:04:45	TESTING	2	192.500	91.250	30.63	26.99	28.39	30.31	33.76	34.48	5.37	1.81	0.56	3.35	1.09	0.40	0.48	0.72		
11SEP90:04:46	TESTING	2	195.000	91.250	30.31	26.66	28.29	30.10	33.45	34.17	5.16	1.81	0.62	3.35	1.21	0.30	0.48	0.72		
11SEP90:04:46	TESTING	2	197.500	91.250	29.99	26.66	28.39	29.99	33.03	33.76	4.66	1.45	0.98	3.07	1.21	0.19	0.36	0.85		
11SEP90:04:47	TESTING	2	200.000	91.250	30.10	26.99	28.50	29.99	32.93	33.97	4.43	1.45	0.92	3.15	1.21	0.19	0.36	0.72		
11SEP90:04:48	TESTING	2	202.500	91.250	30.52	27.85	29.25	30.52	33.24	33.86	3.99	1.21	0.09	2.90	1.21	0.03	0.36	0.60		
11SEP90:04:48	TESTING	2	205.000	91.250	30.73	28.07	29.57	30.63	33.14	33.76	3.57	1.21	0.93	2.93	0.97	0.13	0.24	0.60		
11SEP90:04:50	TESTING	2	207.500	91.250	31.37	28.39	29.89	31.37	33.35	34.38	3.46	1.09	0.49	2.97	0.85	0.21	0.24	0.48		
11SEP90:04:51	TESTING	2	210.000	91.250	31.05	28.39	29.25	31.15	33.66	33.97	4.41	1.45	0.26	3.19	1.45	0.03	0.24	0.60		
11SEP90:04:51	TESTING	2	185.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11SEP90:04:52	TESTING	2	187.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11SEP90:04:53	TESTING	2	190.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11SEP90:04:54	TESTING	2	192.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11SEP90:04:55	TESTING	2	195.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11SEP90:04:56	TESTING	2	197.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11SEP90:04:57	TESTING	2	200.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11SEP90:04:58	TESTING	2	202.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11SEP90:04:59	TESTING	2	205.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11SEP90:05:00	TESTING	2	207.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11SEP90:05:01	TESTING	2	210.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11SEP90:05:19	TESTING	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11SEP90:05:24	TESTING	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11SEP90:05:25	TESTING	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11SEP90:05:27	TESTING	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

TIME	PURPOSE	CONFIG (Degrees)	ELEV	TMP_MEAN	IMP_MIN	IMP_05	IMP_MED	IMP_95	TMP_MAX	T_RNG90	TMP_STDV	LESS	T_CLTUR	LESS	T_CMT75	T_CMT95	T_SKIN	T_ENTRO	(DIMEN-	SIMON-	SIMON-	T_RELNO
		(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	
11SEP90:08:29	TESTING	12	195.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11SEP90:08:31	TESTING	12	197.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11SEP90:08:33	TESTING	12	200.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11SEP90:08:35	TESTING	12	202.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11SEP90:08:37	TESTING	12	205.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11SEP90:08:38	TESTING	12	207.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11SEP90:09:10	TESTING	13	185.000	91.250	38.59	35.46	37.09	38.49	40.87	43.40	3.78	1.30	0.73	3.10	1.06	0.23	0.35	1.06	-	-	-	
11SEP90:09:11	TESTING	13	187.500	91.250	38.99	35.97	37.59	38.89	41.07	42.14	3.48	1.18	0.47	3.05	1.06	0.12	0.47	1.30	-	-	-	
11SEP90:09:14	TESTING	13	190.000	91.250	39.29	35.87	37.99	39.19	41.36	42.04	3.37	1.18	0.36	3.00	0.94	0.26	0.47	1.18	-	-	-	
11SEP90:09:16	TESTING	13	192.500	91.250	39.36	36.35	38.27	39.36	41.14	42.70	2.87	1.07	0.48	2.87	0.83	0.14	0.36	1.07	-	-	-	
11SEP90:09:19	TESTING	13	195.000	91.250	39.46	36.56	38.07	39.46	41.14	42.60	3.07	1.07	0.09	2.96	1.07	0.07	0.48	1.07	-	-	-	
11SEP90:09:20	TESTING	13	197.500	91.250	39.94	37.04	38.65	40.04	41.61	43.26	2.96	1.03	0.04	2.96	1.03	0.04	0.46	1.03	-	-	-	
11SEP90:09:24	TESTING	13	200.000	91.250	40.58	37.95	39.95	40.63	42.15	44.28	2.95	1.03	0.30	2.97	0.93	0.08	0.38	0.98	-	-	-	
11SEP90:09:25	TESTING	13	202.500	91.250	40.43	37.80	39.29	40.38	42.05	42.88	2.76	0.93	0.38	2.87	0.93	0.03	0.27	0.71	-	-	-	
11SEP90:09:27	TESTING	13	205.000	91.250	40.33	37.85	39.44	40.33	41.71	42.78	2.27	0.80	0.46	2.69	0.80	0.03	0.34	0.80	-	-	-	
11SEP90:09:28	TESTING	13	207.500	91.250	40.43	38.75	39.54	40.33	42.00	45.28	2.46	1.14	2.19	2.74	0.80	0.29	0.23	0.57	-	-	-	
11SEP90:09:45	TESTING	14	185.000	91.250	41.47	38.20	40.09	41.17	44.47	46.95	4.38	1.58	1.14	3.17	1.25	0.18	0.46	1.47	-	-	-	
11SEP90:09:46	TESTING	14	187.500	91.250	41.76	39.00	40.19	41.47	44.76	45.90	4.57	1.58	0.98	3.23	1.36	0.11	0.46	1.47	-	-	-	
11SEP90:09:48	TESTING	14	190.000	91.250	41.66	38.70	40.09	41.47	44.66	45.71	4.57	1.58	0.80	3.25	1.25	0.26	0.46	1.47	-	-	-	
11SEP90:09:49	TESTING	14	192.500	91.250	41.56	39.10	40.09	41.47	43.99	45.52	3.90	1.36	0.73	3.13	1.02	0.21	0.34	1.25	-	-	-	
11SEP90:09:51	TESTING	14	195.000	91.250	41.86	39.49	40.38	41.86	44.09	45.14	3.70	1.36	0.44	3.14	1.25	0.12	0.46	1.25	-	-	-	
11SEP90:09:52	TESTING	14	197.500	91.250	42.05	39.49	40.29	42.05	44.28	47.51	3.99	1.47	0.50	3.23	1.36	0.08	0.46	1.25	-	-	-	
11SEP90:09:53	TESTING	14	200.000	91.250	42.25	39.49	40.58	42.25	44.28	46.95	3.70	1.36	0.39	3.17	1.25	0.06	0.46	1.13	-	-	-	
11SEP90:10:38	TESTING	10	185.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11SEP90:10:39	TESTING	10	187.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11SEP90:10:41	TESTING	10	190.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11SEP90:10:42	TESTING	10	192.500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11SEP90:10:44	TESTING	10	195.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11SEP90:10:45	TESTING	10	197.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11SEP90:10:47	TESTING	10	200.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11SEP90:10:48	TESTING	10	202.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11SEP90:10:50	TESTING	10	205.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11SEP90:10:51	TESTING	10	207.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11SEP90:10:52	TESTING	4	185.000	91.250	42.15	39.00	40.48	41.86	45.71	48.08	5.23	1.76	1.29	3.33	1.43	0.21	0.44	1.54	-	-	-	
11SEP90:10:53	TESTING	4	187.500	91.250	42.73	40.29	40.97	42.34	46.28	47.70	5.31	1.76	1.08	3.31	1.54	0.13	0.44	1.76	-	-	-	
11SEP90:10:54	TESTING	4	190.000	91.250	42.93	40.38	41.07	42.64	46.28	47.51	5.21	1.87	0.85	3.34	1.32	0.28	0.44	1.65	-	-	-	
11SEP90:10:55	TESTING	4	192.500	91.250	42.75	40.29	41.17	42.73	45.62	47.33	4.45	1.54	0.89	3.20	1.21	0.21	0.33	1.54	-	-	-	

TIME	PURPOSE	CONFIG (Degrees)	AZIMUTH (Degrees)	ELEV (Degrees)	IMP_MEAN	IMP_MIN	IMP_05	IMP_MED	IMP_95	IMP_MAX	T_ANG0	IMP_STDV	T_CM75	T_CM195	I_SKIN (DINEN-SION)	I_ENTRO (DINEN-SION)	I_BEYNO (DINEN-SION)		
					(Deg. C)	(Deg. C)	(Deg. C)												
11SEP00:10:18	TESTING	6	195.000	91.250	42.93	40.38	41.27	42.93	45.71	46.95	4.45	1.54	0.62	3.25	1.32	0.12	0.44	1.43	
11SEP00:10:19	TESTING	6	197.500	91.250	43.41	40.58	41.37	43.31	46.09	49.66	4.73	1.65	0.72	3.36	1.56	0.08	0.44	1.43	
12SEP00:02:33	TESTING	6	185.000	91.250	30.09	26.43	27.84	30.09	32.35	32.66	4.50	1.59	0.09	3.27	0.83	0.49	0.26	0.65	
12SEP00:02:34	TESTING	6	187.500	91.250	29.66	26.16	27.35	29.55	32.08	32.39	4.73	1.57	0.09	3.28	0.82	0.46	0.29	0.64	
12SEP00:02:36	TESTING	6	190.000	91.250	29.55	26.37	27.51	29.44	32.03	32.39	4.51	1.46	0.28	3.22	0.82	0.44	0.29	0.64	
12SEP00:02:37	TESTING	6	192.500	91.250	29.55	26.48	27.78	29.39	31.92	32.50	4.14	1.28	0.41	3.12	0.82	0.36	0.29	0.64	
12SEP00:02:38	TESTING	6	195.000	91.250	29.50	26.59	27.89	29.39	31.87	32.29	3.98	1.28	0.53	3.10	0.99	0.25	0.29	0.59	
12SEP00:02:39	TESTING	6	197.500	91.250	29.39	26.59	27.89	29.39	31.86	32.19	3.77	1.11	0.66	2.95	0.99	0.13	0.29	0.70	
12SEP00:02:40	TESTING	6	200.000	91.250	29.44	26.70	27.94	29.44	31.56	32.08	3.61	1.11	0.50	2.96	0.96	0.12	0.29	0.64	
12SEP00:02:41	TESTING	6	202.500	91.250	29.60	27.08	28.37	29.60	31.45	31.98	3.08	0.94	0.55	2.82	0.99	0.04	0.29	0.53	
12SEP00:02:42	TESTING	6	205.000	91.250	30.08	27.94	28.96	30.03	31.77	32.13	2.80	0.82	0.60	2.65	0.82	0.04	0.23	0.47	
12SEP00:02:43	TESTING	6	207.500	91.250	30.29	27.24	29.07	30.29	31.87	32.29	2.80	0.88	0.32	2.65	0.70	0.17	0.18	0.35	
12SEP00:02:44	TESTING	13	185.000	91.250	29.25	25.36	26.61	29.36	31.58	31.89	4.96	1.83	0.18	3.37	0.83	0.54	0.24	0.71	
12SEP00:02:45	TESTING	13	187.500	91.250	28.83	25.19	26.34	28.61	31.47	31.63	5.13	1.89	0.10	3.37	0.83	0.55	0.30	0.71	
12SEP00:02:46	TESTING	13	190.000	91.250	28.56	25.14	26.36	28.18	31.26	31.58	4.92	1.71	0.36	3.32	0.89	0.50	0.26	0.65	
12SEP00:02:47	TESTING	13	192.500	91.250	28.34	25.14	26.40	27.97	31.16	31.53	4.76	1.65	0.57	3.26	0.89	0.45	0.30	0.59	
12SEP00:02:48	TESTING	13	195.000	91.250	28.34	25.36	26.45	28.13	31.11	31.37	4.65	1.53	0.56	3.23	1.00	0.35	0.30	0.59	
12SEP00:02:49	TESTING	13	197.500	91.250	28.07	25.14	26.56	27.91	30.84	31.21	4.28	1.30	0.90	3.07	0.95	0.28	0.30	0.65	
12SEP00:02:55	TESTING	13	200.000	91.250	28.13	25.14	26.61	28.02	30.58	31.11	3.96	1.24	0.73	3.05	0.95	0.26	0.30	0.65	
12SEP00:02:51	TESTING	13	202.500	91.250	28.50	26.50	26.07	27.27	30.40	30.63	31.11	3.37	1.06	0.81	2.90	0.95	0.11	0.30	0.53
12SEP00:02:52	TESTING	13	205.000	91.250	28.72	26.56	27.53	28.61	30.68	31.00	3.15	1.00	0.64	2.87	0.77	0.23	0.26	0.53	
12SEP00:02:53	TESTING	13	207.500	91.250	29.04	26.01	27.43	28.93	30.68	31.00	3.26	1.06	0.01	2.94	0.65	0.37	0.18	0.41	
12SEP00:02:54	TESTING	9	185.000	91.250	28.33	24.95	26.22	28.49	30.14	30.51	3.92	1.35	-0.32	3.13	0.77	0.44	0.24	0.71	
12SEP00:02:55	TESTING	9	187.500	91.250	27.95	24.68	25.83	27.95	29.93	30.30	4.09	1.35	-0.13	3.20	0.77	0.45	0.29	0.71	
12SEP00:02:56	TESTING	9	190.000	91.250	27.84	24.79	25.94	27.73	29.93	30.19	3.98	1.29	0.12	3.15	0.77	0.40	0.24	0.65	
12SEP00:02:57	TESTING	9	192.500	91.250	27.52	24.73	25.94	27.41	29.56	30.30	3.61	1.18	0.14	3.08	0.63	0.32	0.29	0.59	
12SEP00:02:40	TESTING	9	195.000	91.250	27.84	24.95	26.27	27.79	29.93	30.19	3.66	1.18	0.26	3.06	0.68	0.27	0.29	0.59	
12SEP00:02:41	TESTING	9	197.500	91.250	27.57	24.90	26.16	27.57	29.66	30.03	3.50	1.06	0.52	2.95	0.63	0.21	0.29	0.65	
12SEP00:02:44	TESTING	9	200.000	91.250	27.57	24.90	26.22	27.57	29.61	29.98	3.39	1.00	0.40	2.92	0.63	0.19	0.24	0.59	
12SEP00:02:45	TESTING	9	202.500	91.250	27.95	25.61	26.76	27.90	29.56	29.93	2.80	0.88	0.38	2.76	0.68	0.00	0.24	0.53	
12SEP00:02:46	TESTING	9	205.000	91.250	28.17	26.05	27.09	28.17	29.56	29.93	2.47	0.83	0.19	2.70	0.71	0.11	0.24	0.53	
12SEP00:02:47	TESTING	9	207.500	91.250	28.49	25.83	27.25	28.54	29.82	30.14	2.57	0.77	0.15	2.67	0.59	0.22	0.18	0.55	
12SEP00:02:48	TESTING	10	185.000	91.000	28.38	25.50	26.32	28.22	30.88	31.14	4.55	1.65	0.24	3.26	0.71	0.58	0.18	0.53	
12SEP00:02:49	TESTING	10	187.500	91.000	28.17	25.72	26.54	27.84	30.77	31.04	4.23	1.47	0.68	3.06	0.71	0.53	0.24	0.47	
12SEP00:02:50	TESTING	10	190.000	91.000	28.06	25.72	26.54	27.79	30.56	30.72	4.02	1.24	0.81	2.97	0.71	0.44	0.24	0.47	
12SEP00:02:51	TESTING	10	192.500	91.000	28.06	25.78	26.76	27.90	30.51	30.83	3.75	1.18	0.97	2.90	0.65	0.46	0.24	0.47	
12SEP00:02:52	TESTING	10	195.000	91.000	28.27	26.11	27.09	28.11	30.56	30.93	3.48	1.12	0.93	2.68	0.65	0.39	0.24	0.47	

TIME	PURPOSE	CONFIG (Degrees)	AZIMUTH	ELEV	TEMP_MEAN			TEMP_MIN			TEMP_MAX			TEMP_SDIV			TEMP_SDIV			TEMP_SDIV			
					(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)
12SEP00:06:33	TESTING	10	197.500	91.000	28.17	26.22	27.03	28.06	30.35	30.93	3.32	1.00	1.06	2.81	0.65	0.37	0.24	0.47	0.47	0.47	0.47	0.47	0.47
12SEP00:06:33	TESTING	10	200.000	91.000	28.17	26.00	27.03	28.11	30.30	30.93	3.27	1.00	1.04	2.77	0.65	0.34	0.24	0.47	0.47	0.47	0.47	0.47	
12SEP00:06:35	TESTING	10	202.500	91.000	28.43	26.11	27.36	28.38	30.51	30.93	3.15	0.94	1.00	2.71	0.71	0.27	0.18	0.35	0.35	0.35	0.35	0.35	
12SEP00:06:36	TESTING	10	205.000	91.000	28.70	26.65	27.58	28.54	30.46	31.09	2.78	0.88	0.94	2.70	0.59	0.36	0.18	0.35	0.35	0.35	0.35	0.35	
13SEP00:02:00	BASELINE	-	157.000	91.333	29.63	27.04	28.12	29.84	31.22	32.59	3.10	1.08	1.00	2.93	0.72	0.26	0.16	0.36	0.36	0.36	0.36	0.36	
13SEP00:02:00	BASELINE	-	159.500	91.333	28.98	25.18	27.04	29.09	30.80	32.17	3.75	1.32	0.25	3.11	0.96	0.21	0.16	0.36	0.36	0.36	0.36	0.36	
13SEP00:02:00	BASELINE	-	162.000	91.333	28.98	25.95	27.37	29.09	30.90	32.06	3.53	1.20	0.10	3.02	0.96	0.14	0.16	0.36	0.36	0.36	0.36	0.36	
13SEP00:02:00	BASELINE	-	164.500	91.333	30.35	27.78	28.69	30.51	31.72	32.98	3.03	1.00	0.20	2.89	0.89	0.11	0.22	0.67	0.67	0.67	0.67	0.67	
13SEP00:02:00	BASELINE	-	167.000	91.333	30.24	27.72	28.59	30.45	31.35	32.20	2.77	0.89	0.66	2.74	0.78	0.11	0.28	0.78	0.78	0.78	0.78	0.78	
13SEP00:02:00	BASELINE	-	169.500	91.333	29.87	27.51	28.37	30.08	30.98	32.62	2.61	0.78	0.61	2.64	0.72	0.10	0.28	0.72	0.72	0.72	0.72	0.72	
13SEP00:02:00	BASELINE	-	172.000	91.333	29.71	27.34	28.42	29.87	30.72	32.09	2.30	0.72	0.58	2.62	0.72	0.05	0.28	0.67	0.67	0.67	0.67	0.67	
13SEP00:02:00	BASELINE	-	190.000	91.333	30.08	27.89	28.69	30.30	31.30	31.51	2.61	0.83	0.45	2.68	0.56	0.31	0.22	0.50	0.50	0.50	0.50	0.50	
13SEP00:02:00	BASELINE	-	192.500	91.333	29.98	27.89	28.75	30.08	31.20	31.51	2.45	0.72	0.22	2.58	0.56	0.24	0.22	0.44	0.44	0.44	0.44	0.44	
13SEP00:02:00	BASELINE	-	195.000	91.333	29.92	27.78	28.80	29.98	31.30	31.67	2.50	0.78	0.11	2.64	0.61	0.16	0.22	0.44	0.44	0.44	0.44	0.44	
13SEP00:02:00	BASELINE	-	197.500	91.333	29.66	27.67	28.53	29.71	31.09	31.41	2.56	0.72	0.23	2.61	0.56	0.24	0.22	0.50	0.50	0.50	0.50	0.50	
13SEP00:02:00	BASELINE	-	200.000	91.333	29.39	27.45	28.37	29.44	30.72	31.20	2.35	0.67	0.25	2.58	0.56	0.23	0.22	0.44	0.44	0.44	0.44	0.44	
13SEP00:02:00	BASELINE	-	202.500	91.333	29.98	29.37	29.12	29.98	31.30	31.72	2.18	0.61	0.57	2.46	0.61	0.04	0.22	0.44	0.44	0.44	0.44	0.44	
13SEP00:02:00	BASELINE	-	235.333	92.333	29.28	26.47	27.40	29.34	31.25	31.56	3.85	1.11	0.11	3.00	0.94	0.16	0.22	0.44	0.44	0.44	0.44	0.44	
13SEP00:04:00	BASELINE	-	157.000	91.333	28.39	25.67	27.04	28.39	29.89	31.27	2.85	0.90	0.24	2.86	0.62	0.31	0.23	0.62	0.62	0.62	0.62	0.62	
13SEP00:04:00	BASELINE	-	159.500	91.333	28.17	25.78	26.71	28.17	29.89	31.00	3.18	0.96	0.24	2.91	0.68	0.28	0.23	0.62	0.62	0.62	0.62	0.62	
13SEP00:04:00	BASELINE	-	162.000	91.333	28.17	25.73	26.71	28.23	29.68	31.06	2.96	0.90	0.05	2.88	0.73	0.24	0.23	0.62	0.62	0.62	0.62	0.62	
13SEP00:04:00	BASELINE	-	164.500	91.333	28.28	25.95	26.82	28.34	29.78	31.00	2.96	0.96	0.20	2.85	0.73	0.21	0.23	0.57	0.57	0.57	0.57	0.57	
13SEP00:04:00	BASELINE	-	167.000	91.333	28.12	25.89	26.77	28.23	29.36	30.79	2.59	0.79	0.13	2.74	0.68	0.15	0.23	0.73	0.73	0.73	0.73	0.73	
13SEP00:04:00	BASELINE	-	169.500	91.333	28.17	25.95	26.77	28.23	29.41	30.90	2.64	0.79	0.19	2.73	0.79	0.06	0.26	0.73	0.73	0.73	0.73	0.73	
13SEP00:04:00	BASELINE	-	172.000	91.333	28.17	25.95	26.93	28.17	29.41	30.79	2.48	0.85	0.05	2.75	0.57	0.29	0.23	0.68	0.68	0.68	0.68	0.68	
13SEP00:04:00	BASELINE	-	190.000	91.333	28.50	26.33	27.15	28.39	30.53	30.85	3.38	1.07	0.58	2.89	0.73	0.34	0.23	0.51	0.51	0.51	0.51	0.51	
13SEP00:04:00	BASELINE	-	192.500	91.333	28.66	26.33	27.31	28.60	30.69	31.22	3.38	1.02	0.55	2.93	0.90	0.14	0.34	0.57	0.57	0.57	0.57	0.57	
13SEP00:04:00	BASELINE	-	195.000	91.333	28.55	26.60	27.42	28.39	30.53	30.79	3.11	0.96	0.74	2.76	0.90	0.06	0.23	0.45	0.45	0.45	0.45	0.45	
13SEP00:04:00	BASELINE	-	197.500	91.333	28.39	26.44	27.31	28.34	30.26	30.69	2.95	0.90	0.69	2.75	0.85	0.09	0.23	0.51	0.51	0.51	0.51	0.51	
13SEP00:04:00	BASELINE	-	200.000	91.333	28.50	26.39	27.39	28.20	29.55	30.16	3.05	1.05	0.51	2.75	0.73	0.14	0.23	0.45	0.45	0.45	0.45	0.45	
13SEP00:04:00	BASELINE	-	202.500	91.333	28.77	26.93	27.65	28.71	30.26	30.69	2.41	0.73	0.73	2.52	0.68	0.07	0.23	0.45	0.45	0.45	0.45	0.45	
13SEP00:04:00	BASELINE	-	235.333	92.333	28.07	25.24	26.17	28.23	30.37	30.85	4.20	1.13	0.10	3.00	0.90	0.23	0.23	0.57	0.57	0.57	0.57	0.57	
13SEP00:06:00	BASELINE	-	157.000	91.333	27.20	25.79	25.89	27.36	28.55	29.89	2.66	0.85	0.05	2.80	0.62	0.26	0.23	0.57	0.57	0.57	0.57	0.57	
13SEP00:06:00	BASELINE	-	159.500	91.333	27.53	24.79	26.06	27.50	29.25	30.26	3.19	0.96	0.15	2.90	0.68	0.29	0.28	0.57	0.57	0.57	0.57	0.57	
13SEP00:06:00	BASELINE	-	162.000	91.333	27.58	25.12	26.06	27.69	28.87	30.30	2.82	0.90	0.27	2.83	0.68	0.23	0.23	0.57	0.57	0.57	0.57	0.57	
13SEP00:06:00	BASELINE	-	164.500	91.333	27.74	25.24	26.11	27.90	28.98	30.10	2.87	0.90	0.22	2.79	0.73	0.22	0.17	0.57	0.57	0.57	0.57	0.57	
13SEP00:06:00	BASELINE	-	167.000	91.333	27.60	25.45	26.39	28.01	28.87	29.57	2.49	0.79	0.70	2.63	0.62	0.16	0.23	0.62	0.62	0.62	0.62	0.62	

TIME	PURPOSE	CONFIG (Degrees)	ELEV	AZIMUTH	TEMP_MEAN	TEMP_MIN	TEMP_05	TEMP_MED	TEMP_95	RNG90	TEMP_STDV	LESS	CLUTLR	LESS	CNTS	CNTS	RENO (DINEN-SION)	
		(0deg. C)	(0deg. C)	(0deg. C)	(0deg. C)	(0deg. C)	(0deg. C)	(0deg. C)	(0deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)	(deg. C)		
13SEP90:06:00	BASELINE	-	169.500	91.333	27.85	25.45	26.33	27.90	29.09	30.05	2.76	0.85	-0.38	2.75	0.73	0.13	0.26	0.62
13SEP90:06:00	BASELINE	-	172.000	91.333	28.44	25.84	26.87	28.55	29.84	30.74	2.96	0.96	-0.28	2.89	0.79	0.16	0.26	0.68
13SEP90:06:00	BASELINE	-	190.000	91.333	28.28	25.89	26.77	28.23	29.94	30.10	3.18	1.02	0.04	2.90	0.62	0.42	0.23	0.51
13SEP90:06:00	BASELINE	-	192.500	91.333	28.39	26.11	27.04	28.34	30.00	30.26	2.96	0.96	0.18	2.82	0.62	0.35	0.23	0.51
13SEP90:06:00	BASELINE	-	195.000	91.333	28.50	26.17	27.20	28.50	30.00	30.21	2.79	0.90	0.11	2.79	0.68	0.25	0.23	0.45
13SEP90:06:00	BASELINE	-	197.500	91.333	28.44	26.22	27.15	28.55	30.05	30.26	2.90	0.85	0.09	2.77	0.62	0.28	0.23	0.62
13SEP90:06:00	BASELINE	-	200.000	91.333	28.55	26.00	27.20	28.66	30.05	30.42	2.85	0.85	0.07	2.77	0.62	0.27	0.23	0.57
13SEP90:06:00	BASELINE	-	202.500	91.333	28.93	27.15	28.07	28.98	30.10	30.31	2.04	0.62	0.18	2.42	0.57	0.05	0.23	0.51
13SEP90:06:00	BASELINE	-	235.333	92.333	27.90	24.79	25.76	28.01	29.73	30.31	3.95	1.13	-0.38	3.03	0.90	0.24	0.23	0.57
13SEP90:08:00	BASELINE	-	157.000	91.333	30.55	28.57	29.81	30.60	31.71	33.44	1.91	0.61	0.92	2.38	0.55	0.04	0.17	0.50
13SEP90:08:00	BASELINE	-	159.500	91.333	30.97	29.38	30.28	31.03	31.82	32.61	1.53	0.50	0.18	2.20	0.44	0.02	0.17	0.44
13SEP90:08:00	BASELINE	-	162.000	91.333	31.08	29.75	30.39	31.08	32.08	33.70	1.69	0.55	1.06	2.26	0.55	0.02	0.17	0.50
13SEP90:08:00	BASELINE	-	164.500	91.333	31.45	29.97	30.76	31.45	32.50	33.70	1.74	0.55	0.84	2.31	0.50	0.14	0.17	0.44
13SEP90:08:00	BASELINE	-	167.000	91.333	32.24	30.23	31.13	32.34	33.65	35.05	2.52	0.83	0.36	2.73	0.72	0.12	0.28	0.61
13SEP90:08:00	BASELINE	-	169.500	91.333	32.66	30.87	31.87	32.71	33.65	35.10	1.78	0.61	0.28	2.42	0.55	0.09	0.17	0.44
13SEP90:08:00	BASELINE	-	172.000	91.333	33.02	31.40	32.13	33.02	34.22	35.41	2.09	0.66	0.53	2.52	0.61	0.12	0.22	0.50
13SEP90:08:00	BASELINE	-	190.000	91.333	33.44	31.61	32.71	33.44	34.17	35.51	1.46	0.44	-0.60	2.13	0.39	0.18	0.17	0.39
13SEP90:08:00	BASELINE	-	192.500	91.333	33.44	31.61	32.92	33.44	34.06	35.30	1.14	0.39	-0.19	2.02	0.39	0.08	0.17	0.39
13SEP90:08:00	BASELINE	-	195.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	
13SEP90:08:00	BASELINE	-	197.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	
13SEP90:08:00	BASELINE	-	200.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	
13SEP90:08:00	BASELINE	-	202.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	
13SEP90:08:00	BASELINE	-	235.333	92.333	-	-	-	-	-	-	-	-	-	-	-	-	-	
13SEP90:10:00	BASELINE	-	157.000	91.333	36.27	34.28	35.77	36.37	40.37	41.27	4.60	1.56	-0.21	3.35	1.36	0.12	0.32	0.91
13SEP90:10:00	BASELINE	-	159.500	91.333	37.82	34.10	35.37	37.97	40.18	40.63	4.01	1.56	-0.15	3.35	1.35	0.13	0.33	0.92
13SEP90:10:00	BASELINE	-	162.000	91.333	38.25	34.36	35.86	38.15	41.15	42.49	5.30	1.70	0.24	3.48	1.34	0.21	0.31	0.83
13SEP90:10:00	BASELINE	-	164.500	91.333	38.60	34.98	36.27	38.40	41.65	43.12	5.38	1.75	0.35	3.47	1.50	0.14	0.36	0.98
13SEP90:10:00	BASELINE	-	167.000	91.333	38.90	35.75	36.78	38.65	41.65	43.08	4.87	1.70	0.33	3.37	1.29	0.22	0.47	1.03
13SEP90:10:00	BASELINE	-	169.500	91.333	38.90	34.93	36.62	38.75	41.84	43.22	5.22	1.75	0.30	3.46	1.34	0.22	0.41	1.16
13SEP90:10:00	BASELINE	-	172.000	91.333	39.10	35.75	36.98	39.10	41.89	43.27	4.91	1.72	0.26	3.40	1.62	0.07	0.36	1.19
13SEP90:10:00	BASELINE	-	190.000	91.333	38.50	36.06	36.76	38.00	41.89	43.27	5.12	1.83	0.87	3.21	1.40	0.22	0.43	1.51
13SEP90:10:00	BASELINE	-	192.500	91.333	38.20	36.27	36.76	37.89	41.30	42.98	4.52	1.40	1.24	3.05	1.19	0.17	0.33	1.29
13SEP90:10:00	BASELINE	-	195.000	91.333	38.30	36.37	36.88	38.20	41.00	42.78	4.12	1.40	0.86	3.12	1.60	0.00	0.43	1.29
13SEP90:10:00	BASELINE	-	197.500	91.333	38.90	36.67	37.18	38.70	41.89	46.67	4.71	1.72	1.51	3.27	1.29	0.25	0.43	1.40
13SEP90:10:00	BASELINE	-	200.000	91.333	38.90	36.78	37.29	38.70	41.60	45.99	4.31	1.62	1.36	3.22	1.29	0.21	0.43	1.29
13SEP90:10:00	BASELINE	-	202.500	91.333	38.70	36.88	37.49	38.60	41.10	42.19	3.61	1.19	0.92	2.95	1.19	-0.05	0.33	0.97
13SEP90:10:00	BASELINE	-	235.333	92.333	42.93	37.44	38.45	43.17	46.45	51.78	11.93	4.27	0.56	3.67	3.67	0.17	2.76	

TIME	PURPOSE	CONFIG (Degrees)	ELEV (Degrees)	AZIMUTH (Degrees)	TEMP_MEAN	TEMP_MIN	TEMP_MAX	TEMP_05	TEMP_MED	TEMP_95	T_RNG90	TEMP_STDV	LESS	T_CLTTR	LESS	T_CNT75	T_CNT95	T_RELND
					(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	
13SEP00:12:00	BASELINE	-	157.000	91.333	42.17	37.92	39.68	42.17	45.10	49.17	5.42	2.48	0.18	3.34	1.87	0.16	0.63	1.56
13SEP00:12:00	BASELINE	-	159.500	91.333	42.17	37.92	39.43	42.41	45.34	47.27	5.91	2.48	0.09	3.37	1.87	0.21	0.63	1.56
13SEP00:12:00	BASELINE	-	162.000	91.333	41.92	37.92	39.18	41.92	45.58	46.79	6.40	2.48	0.25	3.40	1.87	0.27	0.63	1.25
13SEP00:12:00	BASELINE	-	164.500	91.333	41.73	37.73	38.64	41.63	45.55	47.09	6.91	2.39	0.26	3.70	1.98	0.18	0.42	1.36
13SEP00:12:00	BASELINE	-	167.000	91.333	42.03	38.33	39.14	42.03	45.74	46.89	6.60	2.29	0.24	3.62	1.77	0.25	0.52	1.36
13SEP00:12:00	BASELINE	-	169.500	91.333	42.03	37.12	38.94	42.13	45.84	47.37	6.90	2.39	0.20	3.74	1.77	0.25	0.63	1.56
13SEP00:12:00	BASELINE	-	172.000	91.333	42.42	38.03	39.44	42.52	46.12	47.56	6.68	2.28	0.21	3.69	2.07	0.07	0.52	1.55
13SEP00:12:00	BASELINE	-	190.000	91.333	41.03	38.23	38.73	40.24	45.83	47.37	7.10	2.48	0.98	3.49	1.76	0.28	0.52	1.86
13SEP00:12:00	BASELINE	-	192.500	91.333	40.64	38.33	38.94	40.24	44.67	47.27	5.73	1.86	1.36	3.27	1.45	0.20	0.31	1.66
13SEP00:12:00	BASELINE	-	195.000	91.333	40.84	38.63	39.04	40.54	44.18	46.31	5.15	1.76	0.92	3.31	1.76	0.01	0.62	1.55
13SEP00:12:00	BASELINE	-	197.500	91.333	41.33	38.33	39.14	40.93	45.45	50.59	6.31	2.17	1.52	3.53	1.68	0.27	0.52	1.76
13SEP00:12:00	BASELINE	-	200.000	91.333	41.43	38.63	39.34	41.13	44.96	50.50	5.62	1.97	1.39	3.48	1.55	0.22	0.42	1.55
13SEP00:12:00	BASELINE	-	202.500	91.333	40.84	38.33	39.34	40.54	43.79	45.35	4.45	1.45	0.99	3.16	1.45	-0.03	0.42	1.25
13SEP00:12:00	BASELINE	-	235.333	92.333	45.06	39.14	39.86	45.25	52.74	54.59	12.90	4.11	0.46	3.50	0.16	0.83	2.58	
13SEP00:14:00	BASELINE	-	157.000	91.333	45.17	40.56	41.85	45.37	48.34	53.41	6.50	2.40	0.18	3.72	1.88	0.23	0.53	1.46
13SEP00:14:00	BASELINE	-	159.500	91.333	45.07	39.75	41.54	45.26	48.53	52.20	6.99	2.42	-0.02	3.77	1.82	0.25	0.41	1.42
13SEP00:14:00	BASELINE	-	162.000	91.333	44.88	40.55	41.54	44.80	48.72	49.95	7.18	2.52	0.18	3.72	1.62	0.36	0.41	1.11
13SEP00:14:00	BASELINE	-	164.500	91.333	45.17	40.95	41.94	45.07	49.29	56.60	7.35	2.52	0.31	3.72	2.02	0.21	0.41	1.32
13SEP00:14:00	BASELINE	-	167.000	91.333	45.45	41.23	42.22	45.45	49.46	54.78	7.24	2.63	0.44	3.71	2.13	0.20	0.61	1.42
13SEP00:14:00	BASELINE	-	169.500	91.333	45.45	40.14	41.93	45.74	49.46	50.78	7.54	2.63	0.09	3.79	1.83	0.30	0.61	1.73
13SEP00:14:00	BASELINE	-	172.000	91.333	45.54	41.03	42.42	45.83	49.08	50.41	6.67	2.33	0.10	3.69	2.03	0.13	0.51	1.52
13SEP00:14:00	BASELINE	-	190.000	91.333	44.18	41.23	42.02	43.30	49.46	51.72	7.44	2.53	1.19	3.49	1.93	0.24	0.51	1.83
13SEP00:14:00	BASELINE	-	192.500	91.333	43.79	41.13	42.02	43.30	47.94	50.69	5.92	1.93	1.45	3.32	1.52	0.21	0.41	1.52
13SEP00:14:00	BASELINE	-	195.000	91.333	44.09	41.73	42.22	43.89	47.47	49.08	5.24	1.62	0.91	3.32	1.52	0.05	0.51	1.42
13SEP00:14:00	BASELINE	-	197.500	91.333	44.57	41.53	42.42	44.09	49.18	52.46	6.76	2.23	1.63	3.47	1.42	0.35	0.51	1.62
13SEP00:14:00	BASELINE	-	200.000	91.333	44.67	41.73	42.62	44.18	48.61	52.28	5.99	2.13	1.38	3.48	1.52	0.29	0.51	1.52
13SEP00:14:00	BASELINE	-	202.500	91.333	43.99	41.53	42.62	43.69	46.70	50.12	4.08	1.32	1.05	3.08	1.32	0.03	0.41	1.12
13SEP00:14:00	BASELINE	-	235.333	92.333	46.79	41.73	42.91	46.89	52.84	54.50	9.93	3.23	0.54	3.92	2.63	0.17	0.61	2.03
13SEP00:16:00	BASELINE	-	157.000	91.333	44.78	40.55	42.14	45.17	47.29	51.27	5.15	1.83	0.08	3.48	1.32	0.24	0.41	1.12
13SEP00:16:00	BASELINE	-	159.500	91.333	44.69	39.85	41.84	44.88	47.00	50.33	5.16	1.83	-0.21	3.45	1.32	0.26	0.41	1.02
13SEP00:16:00	BASELINE	-	162.000	91.333	44.59	40.35	41.94	44.69	47.48	48.43	5.54	1.93	0.01	3.52	1.22	0.39	0.41	0.82
13SEP00:16:00	BASELINE	-	164.500	91.333	44.39	41.05	42.04	44.30	47.19	50.80	5.15	1.83	0.22	3.46	1.43	0.22	0.41	0.92
13SEP00:16:00	BASELINE	-	167.000	91.333	44.20	40.75	41.84	44.10	47.19	51.92	5.35	2.03	0.52	3.47	1.63	0.19	0.51	1.12
13SEP00:16:00	BASELINE	-	169.500	91.333	44.69	40.05	42.04	44.78	47.77	48.63	5.73	2.03	0.06	3.35	1.43	0.32	0.51	1.22
13SEP00:16:00	BASELINE	-	172.000	91.333	44.20	40.25	41.74	44.30	47.19	47.86	5.45	1.83	0.09	3.50	1.53	0.16	0.41	1.12
13SEP00:16:00	BASELINE	-	190.000	91.333	43.71	40.55	42.04	43.12	48.24	49.76	6.20	1.93	1.37	3.25	1.53	0.19	0.41	1.32
13SEP00:16:00	BASELINE	-	192.500	91.333	43.02	40.55	41.94	42.63	45.94	48.43	4.00	1.32	1.58	2.93	1.02	0.25	0.31	1.02

TIME	PURPOSE	CONFIG (Degrees)	AZIMUTH (Degrees)	ELEV (Degrees)	IMP_MEAN (Deg. C)	IMP_MIN (Deg. C)	IMP_MAX (Deg. C)	TMP_05 (Deg. C)	TMP_MED (Deg. C)	TMP_95 (Deg. C)	RNG00 (Deg. C)	TMP_STD (Deg. C)	CLUTR (Deg. C)	LESS (Deg. C)	CM175 (Deg. C)	CN195 (Deg. C)	T_SKW (DIMEN-SION)		T_ENTR (DIMEN-SION)		T_REMO (DIMEN-SION)	
																SIGN.	UNIT	SIGN.	UNIT	SIGN.	UNIT	
13SEP00:16:00	BASELINE	-	195.000	91.333	43.22	41.35	42.04	43.02	45.56	46.52	3.52	1.12	0.93	2.92	1.12	0.01	0.61	1.02	0.01	0.61	1.02	
13SEP00:16:00	BASELINE	-	197.500	91.333	43.39	40.92	41.81	43.09	47.35	49.83	5.56	1.65	1.82	3.17	1.04	0.39	0.61	1.24	0.01	0.61	1.24	
13SEP00:16:00	BASELINE	-	200.000	91.333	43.48	41.32	42.11	43.19	46.20	50.67	4.09	1.55	2.02	3.09	0.93	0.40	0.31	1.04	0.01	0.31	1.04	
13SEP00:16:00	BASELINE	-	202.500	91.333	42.90	40.92	42.01	42.80	44.75	47.16	2.74	0.93	0.90	2.75	0.83	0.07	0.31	0.83	0.01	0.31	0.83	
13SEP00:16:00	BASELINE	-	235.333	92.333	44.36	41.51	42.40	44.36	47.35	48.40	4.95	1.65	1.63	3.36	1.45	0.17	0.41	1.14	0.01	0.41	1.14	
13SEP00:18:00	BASELINE	-	157.000	91.333	41.46	39.37	40.32	41.32	43.43	44.90	3.11	0.91	0.95	2.84	0.76	0.17	0.20	0.51	0.01	0.20	0.51	
13SEP00:18:00	BASELINE	-	159.500	91.333	41.12	38.31	40.12	41.02	42.65	44.41	2.53	0.76	0.76	2.67	0.66	0.14	0.20	0.51	0.01	0.20	0.51	
13SEP00:18:00	BASELINE	-	162.000	91.333	41.02	38.67	40.97	40.97	42.50	43.39	2.63	0.81	0.29	2.76	0.66	0.16	0.20	0.46	0.01	0.20	0.46	
13SEP00:18:00	BASELINE	-	164.500	91.333	40.77	39.02	39.72	40.72	42.11	44.46	2.39	0.71	0.49	2.68	0.61	0.16	0.20	0.46	0.01	0.20	0.46	
13SEP00:18:00	BASELINE	-	167.000	91.333	40.87	38.52	39.82	40.87	42.21	46.73	2.38	0.81	1.33	2.69	0.71	0.08	0.20	0.61	0.01	0.20	0.61	
13SEP00:18:00	BASELINE	-	169.500	91.333	40.87	38.77	39.92	40.82	42.21	44.70	2.28	0.71	0.70	2.64	0.60	0.11	0.20	0.51	0.01	0.20	0.51	
13SEP00:18:00	BASELINE	-	172.000	91.333	40.67	38.87	39.72	40.67	41.86	44.26	2.14	0.66	0.56	2.55	0.56	0.10	0.15	0.41	0.01	0.15	0.41	
13SEP00:18:00	BASELINE	-	190.000	91.333	40.67	39.57	40.22	40.57	42.21	43.53	1.99	0.56	2.81	1.88	0.46	0.19	0.10	0.46	0.01	0.10	0.46	
13SEP00:18:00	BASELINE	-	192.500	91.333	40.47	39.12	40.12	40.52	41.07	42.25	0.95	0.36	1.44	1.76	0.25	0.24	0.10	0.25	0.01	0.10	0.25	
13SEP00:18:00	BASELINE	-	195.000	91.333	40.47	39.47	40.02	40.52	41.02	41.96	1.00	0.30	0.80	1.81	0.30	0.12	0.10	0.30	0.01	0.10	0.30	
13SEP00:18:00	BASELINE	-	197.500	91.333	40.47	39.32	40.07	40.47	41.12	43.53	1.05	0.46	3.46	1.75	0.20	0.55	0.10	0.25	0.01	0.10	0.25	
13SEP00:18:00	BASELINE	-	200.000	91.333	40.37	39.62	40.07	40.37	40.82	43.53	0.75	0.36	4.23	1.59	0.20	0.42	0.10	0.25	0.01	0.10	0.25	
13SEP00:18:00	BASELINE	-	202.500	91.333	40.27	39.42	39.97	40.32	40.62	41.51	0.65	0.20	0.08	1.47	0.15	0.20	0.10	0.20	0.01	0.10	0.20	
13SEP00:18:00	BASELINE	-	235.333	92.333	40.30	38.64	39.70	40.35	40.94	41.39	1.25	0.41	0.25	2.07	0.36	0.04	0.16	0.31	0.01	0.16	0.31	
13SEP00:20:00	BASELINE	-	157.000	91.333	40.91	38.36	39.82	40.96	42.25	43.53	2.43	0.78	0.08	2.70	0.62	0.19	0.26	0.52	0.01	0.26	0.52	
13SEP00:20:00	BASELINE	-	159.500	91.333	40.81	38.91	39.77	40.86	41.75	42.99	1.99	0.68	0.25	2.53	0.57	0.15	0.21	0.47	0.01	0.21	0.47	
13SEP00:20:00	BASELINE	-	162.000	91.333	40.96	39.06	39.87	41.01	41.90	43.28	2.06	0.68	0.34	2.51	0.47	0.29	0.21	0.52	0.01	0.21	0.52	
13SEP00:20:00	BASELINE	-	164.500	91.333	40.86	38.96	39.72	40.91	41.90	43.04	2.19	0.73	0.25	2.58	0.62	0.19	0.16	0.47	0.01	0.16	0.47	
13SEP00:20:00	BASELINE	-	167.000	91.333	40.86	38.96	39.77	40.96	41.75	43.09	1.99	0.68	0.34	2.49	0.52	0.25	0.21	0.52	0.01	0.21	0.52	
13SEP00:20:00	BASELINE	-	169.500	91.333	41.06	39.16	39.97	41.26	42.05	44.50	2.09	0.76	0.19	2.50	0.54	0.25	0.33	0.65	0.01	0.21	0.65	
13SEP00:20:00	BASELINE	-	172.000	91.333	41.06	39.16	40.07	41.16	42.05	44.21	1.99	0.65	0.14	2.49	0.65	0.11	0.33	0.65	0.01	0.21	0.65	
13SEP00:20:00	BASELINE	-	190.000	91.333	41.51	39.42	40.12	41.85	42.30	42.50	2.18	0.73	0.99	2.33	0.57	0.19	0.21	0.52	0.01	0.21	0.52	
13SEP00:20:00	BASELINE	-	192.500	91.333	41.41	39.42	40.17	41.61	42.20	42.35	2.04	0.62	1.04	2.35	0.52	0.21	0.26	0.47	0.01	0.21	0.47	
13SEP00:20:00	BASELINE	-	195.000	91.333	41.46	39.47	40.42	41.61	42.20	42.45	1.79	0.57	0.84	2.32	0.52	0.06	0.21	0.42	0.01	0.21	0.42	
13SEP00:20:00	BASELINE	-	197.500	91.333	41.06	38.96	39.92	41.26	41.85	42.15	1.94	0.62	0.90	2.41	0.52	0.18	0.21	0.47	0.01	0.21	0.47	
13SEP00:20:00	BASELINE	-	200.000	91.333	41.06	38.8	39.92	41.26	41.81	42.15	1.89	0.62	0.96	2.41	0.52	0.17	0.21	0.47	0.01	0.21	0.47	
13SEP00:20:00	BASELINE	-	202.500	91.333	41.26	38.91	40.47	41.41	41.75	42.05	1.29	0.42	1.12	2.03	0.42	0.01	0.21	0.47	0.01	0.21	0.47	
13SEP00:20:00	BASELINE	-	235.333	92.333	40.22	37.90	38.66	40.22	41.71	41.90	3.05	0.88	0.20	2.78	0.13	0.26	0.26	0.52	0.06	0.21	0.52	
13SEP00:22:00	BASELINE	-	157.000	91.333	36.79	34.36	35.90	36.87	37.53	38.26	1.63	0.52	0.59	2.35	0.44	0.18	0.18	0.44	0.01	0.18	0.44	
13SEP00:22:00	BASELINE	-	159.500	91.333	37.02	35.13	36.16	37.13	37.84	39.20	1.68	0.53	0.39	2.35	0.48	0.13	0.21	0.42	0.01	0.13	0.42	
13SEP00:22:00	BASELINE	-	162.000	91.333	37.02	35.29	36.00	37.08	37.94	39.15	1.94	0.64	0.29	2.43	0.42	0.30	0.16	0.48	0.01	0.16	0.48	
13SEP00:22:00	BASELINE	-	164.500	91.333	37.08	35.39	36.05	37.08	37.94	39.10	1.88	0.64	0.29	2.38	0.53	0.20	0.16	0.42	0.01	0.16	0.42	

TIME	PURPOSE	CONFIG (Degrees)	AZIMUTH (Degrees)	ELEV (Deg. C)	TMP_MEAN (Deg. C)	TMP_MIN (Deg. C)	TMP_05 (Deg. C)	TMP_MED (Deg. C)	TMP_95 (Deg. C)	TMP_RNG90 (Deg. C)	TMP_STDEV (Deg. C)	TMP_MAX (Deg. C)	TMP_LESS (Deg. C)	T_CLOUDTR (Deg. C)	T_CLOUD (Deg. C)	T_CLOUD95 (Deg. C)	I_SKIN (DINEN-SION)	I_ENTRD (DINEN-SION)	I_RETNO (DINEN-SION)
13SEP90:22:00	BASELINE	-	167.000	91.333	37.23	35.49	36.26	37.33	38.09	39.15	1.83	0.64	0.36	2.38	0.48	0.26	0.21	0.48	
13SEP90:22:00	BASELINE	-	169.500	91.333	37.38	35.64	36.36	37.43	38.16	40.15	1.78	0.58	0.33	2.35	0.48	0.17	0.21	0.48	
13SEP90:22:00	BASELINE	-	172.000	91.333	37.33	35.49	36.41	37.38	38.14	40.00	1.73	0.58	0.27	2.37	0.53	0.07	0.21	0.48	
13SEP90:22:00	BASELINE	-	190.000	91.333	37.69	35.70	36.44	37.91	38.42	39.72	1.98	0.62	0.92	2.36	0.47	0.25	0.16	0.41	
13SEP90:22:00	BASELINE	-	192.500	91.333	37.84	35.95	36.77	37.99	38.59	38.75	1.82	0.53	0.95	2.25	0.42	0.19	0.21	0.42	
13SEP90:22:00	BASELINE	-	195.000	91.333	37.61	35.67	36.62	37.74	38.37	38.49	1.75	0.52	0.83	2.27	0.52	0.04	0.16	0.36	
13SEP90:22:00	BASELINE	-	197.500	91.333	37.76	35.77	36.64	37.91	38.47	38.67	1.83	0.55	1.02	2.26	0.47	0.17	0.16	0.41	
13SEP90:22:00	BASELINE	-	200.000	91.333	37.63	35.72	36.62	37.81	38.29	38.67	1.68	0.55	0.99	2.26	0.47	0.15	0.16	0.39	
13SEP90:22:00	BASELINE	-	202.500	91.333	37.81	36.39	37.10	37.96	38.39	38.62	1.29	0.39	0.77	1.99	0.41	0.07	0.16	0.36	
13SEP90:22:00	BASELINE	-	235.333	92.333	37.08	34.82	35.64	37.08	38.39	38.80	2.75	0.85	0.21	2.70	0.74	0.12	0.21	0.48	
14SEP90:00:00	BASELINE	-	157.000	91.333	33.91	32.29	32.87	33.91	34.96	35.41	2.08	0.70	0.00	2.53	0.48	0.34	0.22	0.43	
14SEP90:00:00	BASELINE	-	159.500	91.333	33.75	31.98	32.81	33.86	34.48	35.41	1.66	0.59	0.51	2.33	0.43	0.22	0.22	0.38	
14SEP90:00:00	BASELINE	-	162.000	91.333	34.43	32.76	33.60	34.43	35.20	36.33	1.60	0.54	0.17	2.32	0.38	0.28	0.16	0.43	
14SEP90:00:00	BASELINE	-	164.500	91.333	34.48	32.97	33.70	34.53	35.25	36.33	1.55	0.48	0.34	2.23	0.43	0.09	0.16	0.38	
14SEP90:00:00	BASELINE	-	167.000	91.333	34.53	32.97	33.65	34.63	35.36	36.18	1.71	0.59	0.27	2.37	0.43	0.30	0.16	0.48	
14SEP90:00:00	BASELINE	-	169.500	91.333	34.53	32.87	33.60	34.74	35.15	36.69	1.55	0.48	0.83	2.14	0.48	0.06	0.22	0.48	
14SEP90:00:00	BASELINE	-	172.000	91.333	34.58	32.87	33.65	34.74	35.25	36.84	1.60	0.48	0.74	2.21	0.48	0.03	0.22	0.43	
14SEP90:00:00	BASELINE	-	190.000	91.333	34.83	35.04	33.72	35.09	35.40	35.60	1.68	0.53	1.18	2.08	0.42	0.23	0.16	0.37	
14SEP90:00:00	BASELINE	-	192.500	91.333	34.88	33.22	33.98	35.06	35.32	35.45	1.34	0.42	1.52	1.86	0.37	0.15	0.16	0.32	
14SEP90:00:00	BASELINE	-	195.000	91.333	34.80	33.27	33.98	34.93	35.24	35.45	1.27	0.40	1.22	1.91	0.40	0.01	0.13	0.29	
14SEP90:00:00	BASELINE	-	197.500	91.333	35.25	33.83	34.35	35.41	35.77	35.92	1.42	0.42	1.08	1.97	0.37	0.16	0.16	0.34	
14SEP90:00:00	BASELINE	-	200.000	91.333	35.36	33.83	34.50	35.51	35.87	36.02	1.36	0.45	1.09	2.02	0.37	0.15	0.16	0.32	
14SEP90:00:00	BASELINE	-	202.500	91.333	35.48	34.19	34.92	35.59	35.87	36.00	0.95	0.32	1.00	1.71	0.32	-0.02	0.13	0.32	
14SEP90:00:00	BASELINE	-	235.333	92.333	35.05	33.08	33.75	35.10	36.12	36.74	2.37	0.70	-0.47	2.57	0.59	0.15	0.22	0.43	

**APPENDIX C: VISIBLE SCENE METRICS**

TIME	PURPOSE	CONFIG (Degrees)	ELEV	V_MEAN (BRIGHTNESS VALUE)	V_MIN (BRIGHTNESS VALUE)	V_PERSOS (BRIGHTNESS VALUE)	V_MEDIAN (BRIGHTNESS VALUE)	V_MAX V_RNGPO (BRIGHTNESS VALUE)	V_SKW (DIMENTIONALNESS)	V_ENTRO (DIMEN-SION-LESSNESS)	V_CNTS (BRIGHTNESS)	V_CNT90 (BRIGHTNESS)
06SEP00:06:59	TRAINING	1	162.000	91.333								
06SEP00:07:01	TRAINING	1	164.500	91.333								
06SEP00:07:03	TRAINING	1	167.000	91.333								
06SEP00:07:04	TRAINING	1	169.500	91.333								
06SEP00:07:09	TRAINING	1	172.000	91.333								
06SEP00:07:10	TRAINING	1	174.500	91.333								
06SEP00:07:11	TRAINING	1	177.000	91.333								
06SEP00:07:11	TRAINING	1	179.500	91.333								
06SEP00:07:12	TRAINING	1	182.000	91.333								
06SEP00:07:13	TRAINING	1	184.500	91.333								
06SEP00:10:50	DEMONSTRATION	1	185.000	91.250	3163	564	2162	3205	3924	8774	1762.00	574
06SEP00:10:52	DEMONSTRATION	1	187.500	91.250	3012	606	2114	3053	3714	9923	1600.00	535
06SEP00:10:54	DEMONSTRATION	1	190.000	91.250	3017	572	2092	3083	3725	8654	1633.00	512
06SEP00:10:56	DEMONSTRATION	1	192.500	91.250	3072	527	2193	3110	3803	8564	1610.00	513
06SEP00:10:58	DEMONSTRATION	1	195.000	91.250	3067	589	2061	3120	3858	11507	1797.00	554
06SEP00:11:00	DEMONSTRATION	1	197.500	91.250	3060	582	2010	3094	3888	8313	1878.00	569
06SEP00:11:02	DEMONSTRATION	1	200.000	91.250	3201	574	2287	3235	3963	8237	1676.00	539
06SEP00:11:04	DEMONSTRATION	1	202.500	91.250	3222	651	2381	3251	3877	8701	1496.00	486
06SEP00:11:09	DEMONSTRATION	1	205.000	91.250	3343	682	2493	3369	4012	9424	1519.00	502
06SEP00:11:11	DEMONSTRATION	1	207.500	91.250	3434	713	2631	3441	4185	7921	1554.00	505
07SEP00:08:18	TRAINING	2	162.000	91.333								
07SEP00:08:19	TRAINING	2	164.500	91.333								
07SEP00:08:20	TRAINING	2	167.000	91.333								
07SEP00:08:21	TRAINING	2	169.500	91.333								
07SEP00:08:22	TRAINING	2	172.000	91.333								
07SEP00:08:23	TRAINING	2	174.500	91.333								
07SEP00:08:24	TRAINING	2	177.000	91.333								
07SEP00:08:25	TRAINING	2	179.500	91.339								
07SEP00:08:26	TRAINING	2	182.000	91.333								
07SEP00:08:27	TRAINING	2	184.500	91.333								
07SEP00:10:35	TRAINING	2	162.000	91.333								
07SEP00:10:36	TRAINING	2	164.500	91.333								
07SEP00:10:37	TRAINING	2	167.000	91.333								
07SEP00:10:38	TRAINING	2	169.500	91.333								
07SEP00:10:39	TRAINING	2	172.000	91.333								
07SEP00:10:40	TRAINING	2	174.500	91.333								
07SEP00:10:41	TRAINING	2	177.000	91.333								

TIME	PURPOSE	CONFIG (Degrees)	ELEV	AZIMUTH	v_mean	v_min (BRIGHTNESS)	v_max (BRIGHTNESS)	v_std (BRIGHTNESS)	v_per95 (BRIGHTNESS)	v_per95 (BRIGHTNESS)	v_skew	v_eniro
07SEP00:10:42	TRAINING	2	179.500	91.333								
07SEP00:10:43	TRAINING	2	182.000	91.333								
07SEP00:10:44	TRAINING	2	184.500	91.333								
07SEP00:12:00	TESTING	7	235.284	92.337								
08SEP00:03:16	TESTING	7	235.284	92.336								
08SEP00:03:21	TESTING	7	235.284	92.336								
08SEP00:03:26	TESTING	7	235.284	92.336								
08SEP00:03:38	TESTING	7	235.284	92.336								
08SEP00:03:56	TESTING	7	235.284	92.336								
08SEP00:04:09	TESTING	7	235.284	92.336								
08SEP00:04:53	TESTING	8	235.277	92.339								
08SEP00:05:04	TESTING	8	235.277	92.339								
08SEP00:05:13	TESTING	8	235.277	92.339								
08SEP00:05:22	TESTING	8	235.277	92.339								
08SEP00:05:43	TESTING	8	235.277	92.339								
08SEP00:06:45	TESTING	4	185.000	91.250								
08SEP00:06:46	TESTING	4	187.500	91.250								
08SEP00:06:47	TESTING	4	190.000	91.250								
08SEP00:06:48	TESTING	4	192.500	91.250								
08SEP00:06:49	TESTING	4	195.000	91.250								
08SEP00:06:51	TESTING	4	197.500	91.250								
08SEP00:06:52	TESTING	4	200.000	91.250								
08SEP00:06:53	TESTING	5	190.000	91.250								
08SEP00:06:54	TESTING	5	192.500	91.250								
08SEP00:07:29	TESTING	5	195.000	91.250								
08SEP00:07:30	TESTING	5	197.500	91.250								
08SEP00:07:31	TESTING	5	200.000	91.250								
08SEP00:07:32	TESTING	5	192.500	91.250								
08SEP00:07:33	TESTING	5	195.000	91.250								
08SEP00:07:34	TESTING	5	197.500	91.250								
08SEP00:07:36	TESTING	5	200.000	91.250								
08SEP00:07:37	TESTING	5	202.500	91.250								
08SEP00:07:38	TESTING	5	205.000	91.250								
08SEP00:08:10	TESTING	6	185.000	91.250								
08SEP00:08:11	TESTING	6	187.500	91.250								
08SEP00:08:12	TESTING	6	190.000	91.250								
08SEP00:08:13	TESTING	6	192.500	91.250								

TIME	PURPOSE	CONFIG (Degrees)	ELEV	V_MEAN (BRIGHTNESS)	V_MIN (BRIGHTNESS)	V_MAX (BRIGHTNESS)	V_STD (BRIGHTNESS)	V_SKW (BRIGHTNESS)	V_ENIRO (DIMEN-LESS)	V_CMTS (BRIGHTNESS)	V_CMT90 (BRIGHTNESS)
				MESS VALUE	MESS VALUE	MESS VALUE	MESS VALUE	SIGN.	DIMEN-LESS	DIMEN-LESS	DIMEN-LESS
08SEP90-08:15	TESTING	6	195.000	91.250	.	.	.	.	.	.	.
08SEP90-08:16	TESTING	6	197.500	91.250	.	.	.	.	.	.	.
08SEP90-08:17	TESTING	6	200.000	91.250	.	.	.	.	.	.	.
08SEP90-08:18	TESTING	6	202.500	91.250	.	.	.	.	.	.	.
08SEP90-08:19	TESTING	6	205.000	91.250	.	.	.	.	.	.	.
08SEP90-09:53	TESTING	9	190.000	91.000	.	.	.	.	.	.	.
08SEP90-09:54	TESTING	9	192.500	91.000	.	.	.	.	.	.	.
08SEP90-09:55	TESTING	9	195.000	91.000	.	.	.	.	.	.	.
08SEP90-08:56	TESTING	9	197.500	91.000	.	.	.	.	.	.	.
08SEP90-08:57	TESTING	9	200.000	91.000	.	.	.	.	.	.	.
08SEP90-08:58	TESTING	9	202.500	91.000	.	.	.	.	.	.	.
08SEP90-08:59	TESTING	9	205.000	91.000	.	.	.	.	.	.	.
10SEP90-03:22	TRAINING	1	162.000	91.333	.	.	.	.	.	.	.
10SEP90-03:24	TRAINING	1	164.500	91.333	.	.	.	.	.	.	.
10SEP90-03:25	TRAINING	1	167.000	91.333	.	.	.	.	.	.	.
10SEP90-03:26	TRAINING	1	169.500	91.333	.	.	.	.	.	.	.
10SEP90-03:27	TRAINING	1	172.000	91.333	.	.	.	.	.	.	.
10SEP90-03:29	TRAINING	1	174.500	91.333	.	.	.	.	.	.	.
10SEP90-03:30	TRAINING	1	177.000	91.333	.	.	.	.	.	.	.
10SEP90-03:31	TRAINING	1	179.500	91.333	.	.	.	.	.	.	.
10SEP90-03:32	TRAINING	1	182.000	91.333	.	.	.	.	.	.	.
10SEP90-03:33	TRAINING	1	184.500	91.333	.	.	.	.	.	.	.
10SEP90-04:27	TRAINING	2	162.000	91.333	.	.	.	.	.	.	.
10SEP90-04:28	TRAINING	2	164.500	91.333	.	.	.	.	.	.	.
10SEP90-04:29	TRAINING	2	167.000	91.333	.	.	.	.	.	.	.
10SEP90-04:30	TRAINING	2	169.500	91.333	.	.	.	.	.	.	.
10SEP90-04:31	TRAINING	2	172.000	91.333	.	.	.	.	.	.	.
10SEP90-04:32	TRAINING	2	174.500	91.333	.	.	.	.	.	.	.
10SEP90-04:33	TRAINING	2	177.000	91.333	.	.	.	.	.	.	.
10SEP90-04:34	TRAINING	2	179.500	91.333	.	.	.	.	.	.	.
10SEP90-04:35	TRAINING	2	182.000	91.333	.	.	.	.	.	.	.
10SEP90-04:36	TRAINING	2	184.500	91.333	.	.	.	.	.	.	.
10SEP90-05:46	TRAINING	3	162.000	90.750	.	.	.	.	.	.	.
10SEP90-05:48	TRAINING	3	164.500	90.750	.	.	.	.	.	.	.
10SEP90-05:49	TRAINING	3	167.000	90.750	.	.	.	.	.	.	.
10SEP90-05:50	TRAINING	3	169.500	90.750	.	.	.	.	.	.	.
10SEP90-05:52	TRAINING	3	172.000	90.750	.	.	.	.	.	.	.

			V_MEAN	V_MIN	V_PER95	V_MEDIAN	V_MAX	V_RNG90	V_STD	V_SKW	V_ENTRO
TIME	PURPOSE	CONFIG (Degrees)	ELEV	(BRIGHTNESS)	(BRIGHTNESS)	(BRIGHTNESS)	(BRIGHTNESS)	(BRIGHTNESS)	(BRIGHTNESS)	(DIMEN- SION- LESS	(DIMEN- SION- LESS
			VALUE)	VALUE)	MESS	MESS	MESS	MESS	MESS	UNIT1)	UNIT1)
10SEP90:05:53	TRAINING	3	174.500	90.750							
10SEP90:05:54	TRAINING	3	177.000	90.750							
10SEP90:05:58	TRAINING	3	179.500	90.750							
10SEP90:05:59	TRAINING	3	182.000	90.750							
10SEP90:06:00	TRAINING	3	184.500	90.750							
10SEP90:06:07	TRAINING	1	162.000	91.333							
10SEP90:06:08	TRAINING	1	164.500	91.333							
10SEP90:06:09	TRAINING	1	167.000	91.333							
10SEP90:06:11	TRAINING	1	169.500	91.333							
10SEP90:06:13	TRAINING	1	172.000	91.333							
10SEP90:06:14	TRAINING	1	174.500	91.333							
10SEP90:06:15	TRAINING	1	177.000	91.333							
10SEP90:06:16	TRAINING	1	179.500	91.333							
10SEP90:06:18	TRAINING	1	182.000	91.333							
10SEP90:06:19	TRAINING	1	184.500	91.333							
12SEP90:06:16	TESTING	1	185.000	91.250							
12SEP90:04:19	TESTING	1	187.500	91.250							
12SEP90:04:21	TESTING	1	190.000	91.250							
12SEP90:04:22	TESTING	1	192.500	91.250							
12SEP90:04:23	TESTING	1	195.000	91.250							
12SEP90:04:25	TESTING	1	197.500	91.250							
12SEP90:04:26	TESTING	1	200.000	91.250							
11SEP90:04:42	TESTING	2	185.000	91.250							
11SEP90:04:43	TESTING	2	187.500	91.250							
11SEP90:04:43	TESTING	2	200.000	91.250							
11SEP90:04:45	TESTING	2	202.500	91.250							
11SEP90:04:46	TESTING	2	195.000	91.250							
11SEP90:04:46	TESTING	2	197.500	91.250							
11SEP90:04:47	TESTING	2	200.000	91.250							
11SEP90:04:48	TESTING	2	202.500	91.250							
11SEP90:04:48	TESTING	2	205.000	91.250							
11SEP90:04:50	TESTING	2	207.500	91.250							
11SEP90:04:51	TESTING	2	210.000	91.250							
11SEP90:08:19	TESTING	12	165.000	91.250	2186	700	1367	2169	3007	4394	1660.00
11SEP90:08:24	TESTING	12	181.500	91.250	2443	740	1420	2357	3549	16055	2129.00
11SEP90:08:25	TESTING	12	190.000	91.250	2439	684	1399	2372	3489	4342	2090.00
11SEP90:08:27	TESTING	12	192.500	91.250	2470	598	1556	2441	3436	8218	1880.00

TIME	PURPOSE	CONFIG (Degrees)	AZIMUTH	ELEV	V_MEAN (BRIGHTNESS)	V_MIN (BRIGHTNESS)	V_MEDIAN (BRIGHTNESS)	V_PER95 (BRIGHTNESS)	V_MAX (BRIGHTNESS)	V_STD (BRIGHTNESS)	V_SKEN (DIMEN- SION- LESS	V_CN190 (BRIGHT- NESS				
11SEP90:08:29	TESTING	12	195.000	91.250	2465	911	1628	2450	3255	5083	1627.00	498	-0.1030	7.5720	97	273
11SEP90:08:31	TESTING	12	197.500	91.250	2424	890	1568	2424	3219	4611	1653.00	493	-0.1980	7.5840	111	291
11SEP90:08:33	TESTING	12	200.000	91.250	2497	865	1689	2508	3225	5020	1536.00	468	-0.1640	7.5430	102	270
11SEP90:08:35	TESTING	12	202.500	91.250	2582	907	1832	2599	3246	5926	1414.00	436	-0.2130	7.4640	89	255
11SEP90:08:37	TESTING	12	205.000	91.250	2649	1102	1856	2681	3294	7108	1438.00	437	-0.3300	7.4550	90	273
11SEP90:08:38	TESTING	12	207.500	91.250	2724	1153	1999	2751	3337	4975	1338.00	418	-0.0470	7.3990	83	256
11SEP90:09:10	TESTING	13	185.000	91.250	2932	986	1862	2974	3629	5360	1967.00	602	-0.2950	7.7740	65	301
11SEP90:09:11	TESTING	13	187.500	91.250	2701	916	1768	2717	3451	16051	1683.00	566	-1.2560	7.6490	87	257
11SEP90:09:14	TESTING	13	190.000	91.250	2377	789	1560	2418	3018	3714	1458.00	436	-0.4930	7.4520	81	212
11SEP90:09:16	TESTING	13	192.500	91.250	2398	735	1690	2462	2955	5349	1265.00	369	-0.4340	7.3440	67	208
11SEP90:09:19	TESTING	13	195.000	91.250	2394	1035	1748	2427	2933	3851	1185.00	361	-0.3250	7.2760	79	234
11SEP90:09:20	TESTING	13	197.500	91.250	2400	950	1726	2422	2974	4216	1248.00	379	-0.3190	7.3360	94	280
11SEP90:09:24	TESTING	13	200.000	91.250	2452	949	1772	2478	3003	3973	1221.00	362	-0.2200	7.3190	82	247
11SEP90:09:25	TESTING	13	202.500	91.250	2506	965	1873	2526	3062	4937	1189.00	362	-0.2580	7.2820	77	236
11SEP90:09:27	TESTING	13	205.000	91.250	2564	1133	1918	2590	3084	5232	1166.00	355	-0.4050	7.2480	76	234
11SEP90:09:28	TESTING	13	207.500	91.250	2922	1275	2216	2916	3534	5484	1318.00	421	-0.2890	7.3850	86	262
11SEP90:09:45	TESTING	14	185.000	91.250	2631	933	1825	2679	3229	4487	1604.00	444	-0.3340	7.4550	81	267
11SEP90:09:46	TESTING	14	187.500	91.250	2513	923	1768	2544	3098	5350	1310.00	414	-0.0690	7.3880	70	209
11SEP90:09:48	TESTING	14	190.000	91.250	2600	882	1776	2650	3236	4339	1460.00	440	-0.4660	7.4660	84	224
11SEP90:09:49	TESTING	14	192.500	91.250	2545	714	1846	2582	3115	5349	1269.00	387	-0.4300	7.3430	66	201
11SEP90:09:51	TESTING	14	195.000	91.250	2546	1111	1889	2577	3099	4015	1210.00	368	-0.3490	7.2930	77	238
11SEP90:09:52	TESTING	14	197.500	91.250	2531	918	1826	2536	3118	4352	1292.00	394	-0.4210	7.3590	88	263
11SEP90:09:53	TESTING	14	200.000	91.250	2577	898	1877	2604	3142	5298	1265.00	394	-0.1000	7.3410	82	257
11SEP90:10:38	TESTING	10	165.000	91.250	2876	1082	1999	2896	3708	5017	1709.00	524	-0.2070	7.6230	99	293
11SEP90:10:39	TESTING	10	187.500	91.250	2716	1009	1973	2754	3314	5349	1341.00	416	-0.3550	7.4040	65	215
11SEP90:10:41	TESTING	10	190.000	91.250	2689	939	1901	2759	3295	4265	1394.00	419	-0.4900	7.4080	76	217
11SEP90:10:42	TESTING	10	192.500	91.250	2708	369	1997	2775	3295	5165	1299.00	400	-0.5890	7.3640	70	207
11SEP90:10:44	TESTING	10	195.000	91.250	2704	1201	2038	2762	3261	4336	1223.00	370	-0.3710	7.2970	80	237
11SEP90:10:45	TESTING	10	197.500	91.250	2680	374	1949	2709	3278	5345	1329.00	409	-0.5680	7.3790	91	272
11SEP90:10:47	TESTING	10	200.000	91.250	2717	439	2008	2749	3285	4409	1277.00	393	-0.2960	7.3430	84	258
11SEP90:10:48	TESTING	10	202.500	91.250	2758	1111	2105	2777	3323	4332	1218.00	372	-0.2860	7.2990	78	236
11SEP90:10:50	TESTING	10	205.000	91.250	2789	1281	2150	2814	3290	4334	1140.00	352	-0.4760	7.2380	67	210
11SEP90:10:51	TESTING	10	207.500	91.250	2827	1588	2241	2831	3363	4725	1122.00	350	-0.0970	7.2170	61	200
11SEP90:10:12	TESTING	4	185.000	91.250	2951	1376	2218	2900	4064	5351	1846.00	543	-1.4410	7.4760	92	306
11SEP90:10:14	TESTING	4	187.500	91.250	2626	960	1881	2660	3231	5350	1350.00	421	-0.1680	7.4150	69	213
11SEP90:10:15	TESTING	4	190.000	91.250	2606	915	1818	2659	3201	4077	1383.00	415	-0.5300	7.3960	77	212
11SEP90:10:16	TESTING	4	192.500	91.250	2628	429	1923	2665	3207	5348	1284.00	393	-0.4830	7.3530	69	207

TIME	PURPOSE	CONFIG (Degrees)	ELEV	AZIMUTH	V_MEAN (BRIGHTNESS VALUE)	V_MIN (BRIGHTNESS VALUE)	V_MAX (BRIGHTNESS VALUE)	V_SD (BRIGHTNESS VALUE)	V_PERS (BRIGHTNESS VALUE)	V_MEDIAN (BRIGHTNESS VALUE)	V_SKEW (BRIGHTNESS VALUE)	V_ENTRO (BRIGHTNESS VALUE)	V_CMTS (BRIGHTNESS VALUE)	V_CMTS (BRIGHTNESS VALUE)
11SEP90:10:18	TESTING	4	195.000	91.250	2630	1156	1966	2666	3166	4251	1220.00	372	-0.3460	7.3020
11SEP90:10:19	TESTING	4	197.500	91.250										
12SEP90:02:33	TESTING	4	165.000	91.250										
12SEP90:02:34	TESTING	4	187.500	91.250										
12SEP90:02:36	TESTING	4	190.000	91.250										
12SEP90:02:37	TESTING	4	192.500	91.250										
12SEP90:02:38	TESTING	4	195.000	91.250										
12SEP90:02:39	TESTING	4	197.500	91.250										
12SEP90:02:40	TESTING	4	200.000	91.250										
12SEP90:02:41	TESTING	4	202.500	91.250										
12SEP90:02:42	TESTING	4	205.000	91.250										
12SEP90:02:43	TESTING	4	207.500	91.250										
12SEP90:03:48	TESTING	13	185.000	91.250										
12SEP90:03:49	TESTING	13	187.500	91.250										
12SEP90:03:51	TESTING	13	190.000	91.250										
12SEP90:03:52	TESTING	13	192.500	91.250										
12SEP90:03:53	TESTING	13	195.000	91.250										
12SEP90:03:53	TESTING	13	197.500	91.250										
12SEP90:03:55	TESTING	13	200.000	91.250										
12SEP90:03:55	TESTING	13	202.500	91.250										
12SEP90:03:56	TESTING	13	205.000	91.250										
12SEP90:03:57	TESTING	13	207.500	91.250										
12SEP90:04:40	TESTING	9	185.000	91.250										
12SEP90:04:41	TESTING	9	187.500	91.250										
12SEP90:04:41	TESTING	9	190.000	91.250										
12SEP90:04:42	TESTING	9	192.500	91.250										
12SEP90:04:43	TESTING	9	195.000	91.250										
12SEP90:04:44	TESTING	9	197.500	91.250										
12SEP90:04:45	TESTING	9	200.000	91.250										
12SEP90:04:46	TESTING	9	202.500	91.250										
12SEP90:04:46	TESTING	9	205.000	91.250										
12SEP90:04:47	TESTING	9	207.500	91.250										
12SEP90:06:15	TESTING	10	185.000	91.000	45	17	31	45	64	92	33.00	11	0.9960	3.7010
12SEP90:06:19	TESTING	10	187.500	91.000	63	25	45	64	84	167	39.00	14	1.5680	3.9150
12SEP90:06:22	TESTING	10	190.000	91.000	79	30	54	61	101	138	47.00	14	0.3720	4.0210
12SEP90:06:24	TESTING	10	192.500	91.000	110	15	84	112	132	294	48.00	15	-0.5400	4.0770
12SEP90:06:32	TESTING	10	195.000	91.000	162	16	122	161	212	393	90.00	27	0.3910	4.7010

TIME	PURPOSE	CONFIG (Degrees)	ELEV	V MEAN (BRIGHTNESS) VALUE)	V MIN (BRIGHTNESS) VALUE)	V PEAKS (BRIGHTNESS) VALUE)	V MEDIAN (BRIGHTNESS) VALUE)	V PER95 (BRIGHTNESS) VALUE)	V MAX V_RNG90 (BRIGHTNESS) LESSNESS	V_STD (BRIGHTNESS) LESSNESS	V_SKEW (DIMIN- SION- (BRIGHTNESS) LESSNESS	V_ENTRO (DIMIN- SION- (BRIGHTNESS) LESSNESS	V_CM90 (DIMIN- SION- (BRIGHTNESS) LESSNESS
12SEP00:06:31	TESTING	10	197.500	91.000	232	23	143	229	337	628	194.00	59	0.3660
12SEP00:06:33	TESTING	10	200.000	91.000	330	28	157	335	496	961	339.00	104	-0.0090
12SEP00:06:35	TESTING	10	202.500	91.000	408	37	193	414	596	1821	403.00	121	0.0780
12SEP00:06:36	TESTING	10	205.000	91.000	482	42	287	489	670	1671	383.00	121	-0.0780
13SEP00:02:00	BASELINE	-	157.000	91.333	-	-	-	-	-	-	-	-	-
13SEP00:02:00	BASELINE	-	159.500	91.333	-	-	-	-	-	-	-	-	-
13SEP00:02:00	BASELINE	-	162.000	91.333	-	-	-	-	-	-	-	-	-
13SEP00:02:00	BASELINE	-	164.500	91.333	-	-	-	-	-	-	-	-	-
13SEP00:02:00	BASELINE	-	167.000	91.333	-	-	-	-	-	-	-	-	-
13SEP00:02:00	BASELINE	-	169.500	91.333	-	-	-	-	-	-	-	-	-
13SEP00:02:00	BASELINE	-	172.000	91.333	-	-	-	-	-	-	-	-	-
13SEP00:02:00	BASELINE	-	190.000	91.333	-	-	-	-	-	-	-	-	-
13SEP00:02:00	BASELINE	-	192.500	91.333	-	-	-	-	-	-	-	-	-
13SEP00:02:00	BASELINE	-	195.000	91.333	-	-	-	-	-	-	-	-	-
13SEP00:02:00	BASELINE	-	197.500	91.333	-	-	-	-	-	-	-	-	-
13SEP00:02:00	BASELINE	-	200.000	91.333	-	-	-	-	-	-	-	-	-
13SEP00:02:00	BASELINE	-	202.500	91.333	-	-	-	-	-	-	-	-	-
13SEP00:02:00	BASELINE	-	235.333	92.333	-	-	-	-	-	-	-	-	-
13SEP00:04:00	BASELINE	-	157.000	91.333	-	-	-	-	-	-	-	-	-
13SEP00:04:00	BASELINE	-	159.500	91.333	-	-	-	-	-	-	-	-	-
13SEP00:04:00	BASELINE	-	162.000	91.333	-	-	-	-	-	-	-	-	-
13SEP00:04:00	BASELINE	-	164.500	91.333	-	-	-	-	-	-	-	-	-
13SEP00:04:00	BASELINE	-	167.000	91.333	-	-	-	-	-	-	-	-	-
13SEP00:04:00	BASELINE	-	169.500	91.333	-	-	-	-	-	-	-	-	-
13SEP00:04:00	BASELINE	-	172.000	91.333	-	-	-	-	-	-	-	-	-
13SEP00:04:00	BASELINE	-	190.000	91.333	-	-	-	-	-	-	-	-	-
13SEP00:04:00	BASELINE	-	192.500	91.333	-	-	-	-	-	-	-	-	-
13SEP00:04:00	BASELINE	-	195.000	91.333	-	-	-	-	-	-	-	-	-
13SEP00:04:00	BASELINE	-	197.500	91.333	-	-	-	-	-	-	-	-	-
13SEP00:04:00	BASELINE	-	200.000	91.333	-	-	-	-	-	-	-	-	-
13SEP00:04:00	BASELINE	-	202.500	91.333	-	-	-	-	-	-	-	-	-
13SEP00:04:00	BASELINE	-	235.333	92.333	-	-	-	-	-	-	-	-	-
13SEP00:06:00	BASELINE	-	157.000	91.333	-	-	-	-	-	-	-	-	-
13SEP00:06:00	BASELINE	-	159.500	91.333	-	-	-	-	-	-	-	-	-
13SEP00:06:00	BASELINE	-	162.000	91.333	-	-	-	-	-	-	-	-	-
13SEP00:06:00	BASELINE	-	164.500	91.333	-	-	-	-	-	-	-	-	-
13SEP00:06:00	BASELINE	-	167.000	91.333	-	-	-	-	-	-	-	-	-

TIME	PURPOSE	CONFIG (Degrees)	ELEV	V_MEAN (BRIGHTNESS)	V_MIN (BRIGHTNESS)	V_PEROS (BRIGHTNESS)	V_MAX (BRIGHTNESS)	V_SD (BRIGHTNESS)	V_SKW (DIMEN. OF CNTS)	V_ENTRO (DIMEN. OF CNTS)
13SEP90:06:00	BASELINE	-	169.500	91.333	-	-	-	-	-	-
13SEP90:06:00	BASELINE	-	172.000	91.333	-	-	-	-	-	-
13SEP90:06:00	BASELINE	-	190.000	91.333	-	-	-	-	-	-
13SEP90:06:00	BASELINE	-	192.500	91.333	-	-	-	-	-	-
13SEP90:06:00	BASELINE	-	195.000	91.333	-	-	-	-	-	-
13SEP90:06:00	BASELINE	-	197.500	91.333	-	-	-	-	-	-
13SEP90:06:00	BASELINE	-	200.000	91.333	-	-	-	-	-	-
13SEP90:06:00	BASELINE	-	202.500	91.333	-	-	-	-	-	-
13SEP90:06:00	BASELINE	-	235.333	92.333	-	-	-	-	-	-
13SEP90:08:00	BASELINE	-	157.000	91.333	2159	265	1477	2165	2799	1617
13SEP90:08:00	BASELINE	-	159.500	91.333	2164	252	1583	2161	2816	1597
13SEP90:08:00	BASELINE	-	162.000	91.333	2151	251	1545	2133	2841	1754
13SEP90:08:00	BASELINE	-	164.500	91.333	2200	270	1588	2197	2870	1491
13SEP90:08:00	BASELINE	-	167.000	91.333	2209	287	1565	2198	2881	1302
13SEP90:08:00	BASELINE	-	169.500	91.333	1876	750	1183	1892	2504	1321
13SEP90:08:00	BASELINE	-	172.000	91.333	1868	606	1295	1887	2555	1260
13SEP90:08:00	BASELINE	-	190.000	91.333	2312	604	1509	2370	2881	1372
13SEP90:08:00	BASELINE	-	192.500	91.333	2332	594	1605	2371	2913	1308
13SEP90:08:00	BASELINE	-	195.000	91.333	2353	988	1659	2391	2913	1254
13SEP90:08:00	BASELINE	-	197.500	91.333	2458	980	1709	2689	3055	1346
13SEP90:08:00	BASELINE	-	200.000	91.333	2497	997	1771	2528	3082	1311
13SEP90:08:00	BASELINE	-	202.500	91.333	2562	946	1864	2580	3175	1307
13SEP90:08:00	BASELINE	-	235.333	92.333	3098	447	2048	2982	4084	1617
13SEP90:10:00	BASELINE	-	157.000	91.333	2696	1369	1985	2699	3334	1349
13SEP90:10:00	BASELINE	-	159.500	91.333	2717	1137	2068	2703	3362	1316
13SEP90:10:00	BASELINE	-	162.000	91.333	2614	1005	1920	2610	3306	1386
13SEP90:10:00	BASELINE	-	164.500	91.333	2667	1116	2002	2677	3317	1315
13SEP90:10:00	BASELINE	-	167.000	91.333	2685	1084	2021	2685	3343	1322
13SEP90:10:00	BASELINE	-	169.500	91.333	2705	1113	1914	2727	3417	1503
13SEP90:10:00	BASELINE	-	172.000	91.333	2789	917	2085	2774	3504	1419
13SEP90:10:00	BASELINE	-	190.000	91.333	3065	981	2064	3131	3798	1734
13SEP90:10:00	BASELINE	-	192.500	91.333	3031	850	2206	3066	3722	1516
13SEP90:10:00	BASELINE	-	195.000	91.333	3038	1304	2249	3073	3719	1470
13SEP90:10:00	BASELINE	-	197.500	91.333	3010	1147	2151	3044	3723	1572
13SEP90:10:00	BASELINE	-	200.000	91.333	2964	1173	2167	3015	3662	1495
13SEP90:10:00	BASELINE	-	202.500	91.333	3032	1211	2284	3041	3736	1452
13SEP90:10:00	BASELINE	-	235.333	92.333	2933	1104	2032	2924	3862	1850

TIME	PURPOSE	CONFIG (Degrees)	ELEV	V_MEAN (BRIGHTNESS)	V_MIN (BRIGHTNESS)	V_MAX (BRIGHTNESS)	V_SKW (DIMEN-SIGN)	V_MEDIAN (BRIGHTNESS)	V_PEROS (BRIGHTNESS)	V_SID (BRIGHTNESS)	V_VENIRO (DIMEN-SIGN)
13SEP90:12:00	BASELINE	-	157.000	91.333	3142	1556	2356	3159	3824	5114	1670.00
13SEP90:12:00	BASELINE	-	159.500	91.333	3037	1272	2340	3039	3698	4678	1358.00
13SEP90:12:00	BASELINE	-	162.000	91.333	3001	1153	2226	3009	3733	6563	1509.00
13SEP90:12:00	BASELINE	-	164.500	91.333	3059	1181	2276	3063	3775	6513	1499.00
13SEP90:12:00	BASELINE	-	167.000	91.333	3061	1219	2371	3056	3755	5181	1384.00
13SEP90:12:00	BASELINE	-	169.500	91.333	3085	1227	2213	3106	3853	5500	1640.00
13SEP90:12:00	BASELINE	-	172.000	91.333	3196	1095	2438	3171	3946	5813	1528.00
13SEP90:12:00	BASELINE	-	190.000	91.333	3388	1139	2352	3611	4180	5916	2028.00
13SEP90:12:00	BASELINE	-	192.500	91.333	3360	945	2447	3376	4246	5496	1799.00
13SEP90:12:00	BASELINE	-	195.000	91.333	3364	1403	2467	3382	4229	5930	1762.00
13SEP90:12:00	BASELINE	-	197.500	91.333	3314	1299	2355	3337	4210	5481	1855.00
13SEP90:12:00	BASELINE	-	200.000	91.333	3352	1350	2417	3373	4269	5889	1852.00
13SEP90:12:00	BASELINE	-	202.500	91.333	3437	1362	2542	3410	4469	6015	1927.00
13SEP90:12:00	BASELINE	-	205.500	92.333	2814	1143	1941	2817	3648	6172	1707.00
13SEP90:12:00	BASELINE	-	157.000	91.333	-	-	-	-	-	514	0.2140
13SEP90:14:00	BASELINE	-	159.500	91.333	-	-	-	-	-	-	7.6240
13SEP90:14:00	BASELINE	-	162.000	91.333	-	-	-	-	-	-	105
13SEP90:14:00	BASELINE	-	164.500	91.333	-	-	-	-	-	-	306
13SEP90:14:00	BASELINE	-	167.000	91.333	-	-	-	-	-	-	-
13SEP90:14:00	BASELINE	-	169.500	91.333	-	-	-	-	-	-	-
13SEP90:14:00	BASELINE	-	172.000	91.333	-	-	-	-	-	-	-
13SEP90:14:00	BASELINE	-	190.000	91.333	3154	1167	2243	3165	4081	5055	1838.00
13SEP90:14:00	BASELINE	-	192.500	91.333	3100	942	2209	3109	3991	5272	1782.00
13SEP90:14:00	BASELINE	-	195.000	91.333	3154	1244	2334	3184	4301	5675	1967.00
13SEP90:14:00	BASELINE	-	197.500	91.333	3095	835	2186	3117	3981	4838	1795.00
13SEP90:14:00	BASELINE	-	200.000	91.333	3107	1300	2216	3124	4017	5269	1801.00
13SEP90:14:00	BASELINE	-	202.500	91.333	3220	1376	2373	3180	4259	4912	1886.00
13SEP90:14:00	BASELINE	-	205.500	92.333	2464	441	1688	2493	3242	8184	1556.00
13SEP90:14:00	BASELINE	-	157.000	91.333	2506	858	1680	2533	3200	4356	1520.00
13SEP90:14:00	BASELINE	-	159.500	91.333	2451	943	1766	2451	3138	4486	1372.00
13SEP90:14:00	BASELINE	-	162.000	91.333	2397	863	1685	2412	3055	5031	1370.00
13SEP90:14:00	BASELINE	-	164.500	91.333	2355	873	1678	2353	2948	4470	1310.00
13SEP90:14:00	BASELINE	-	167.000	91.333	2296	796	1597	2327	2894	4657	1297.00
13SEP90:14:00	BASELINE	-	169.500	91.333	2289	825	1514	2308	2955	5894	1441.00
13SEP90:14:00	BASELINE	-	172.000	91.333	2288	693	1600	2295	2958	4165	1358.00
13SEP90:16:00	BASELINE	-	190.000	91.333	2627	877	1709	2631	3117	3923	1409.00
13SEP90:16:00	BASELINE	-	192.500	91.333	2431	734	1694	2643	3134	4120	1440.00
13SEP90:16:00	BASELINE	-	-	-	-	-	-	-	-	432	-0.1350
13SEP90:16:00	BASELINE	-	-	-	-	-	-	-	-	73	7.4680

TIME	PURPOSE	CONFIG (Degrees)	ELEV	V_MEAN (BRIGHTNESS)	V_MIN (BRIGHTNESS)	V_MAX (BRIGHTNESS)	V_SID (BRIGHTNESS)	V_SKW (DIMEN- SION)	V_CNT90 (BRIGHTNESS)
13SEP00:16:00	BASELINE	-	195.000	91.333	2438	953	1754	2439	3168
13SEP00:16:00	BASELINE	-	197.500	91.333	2375	896	1656	2368	3115
13SEP00:16:00	BASELINE	-	200.000	91.333	2394	1015	1687	2396	3166
13SEP00:16:00	BASELINE	-	202.500	91.333	2443	1123	1775	2414	3241
13SEP00:16:00	BASELINE	-	235.333	92.333	2040	1017	1487	2026	2671
13SEP00:18:00	BASELINE	-	157.000	91.333	1499	488	927	1523	1995
13SEP00:18:00	BASELINE	-	159.500	91.333	1371	467	863	1372	1872
13SEP00:18:00	BASELINE	-	162.000	91.333	1253	448	688	1266	1733
13SEP00:18:00	BASELINE	-	164.500	91.333	1171	371	663	1168	1674
13SEP00:18:00	BASELINE	-	167.000	91.333	1100	413	562	1127	1582
13SEP00:18:00	BASELINE	-	169.500	91.333	1072	398	625	1078	1512
13SEP00:18:00	BASELINE	-	172.000	91.333	1013	338	538	1026	1641
13SEP00:18:00	BASELINE	-	190.000	91.333	1072	399	722	1075	1416
13SEP00:18:00	BASELINE	-	192.500	91.333	1031	358	689	1041	1350
13SEP00:18:00	BASELINE	-	195.000	91.333	975	380	671	977	1278
13SEP00:18:00	BASELINE	-	197.500	91.333	905	341	618	897	1209
13SEP00:18:00	BASELINE	-	200.000	91.333	850	351	572	848	1143
13SEP00:18:00	BASELINE	-	202.500	91.333	810	344	557	805	1082
13SEP00:18:00	BASELINE	-	235.333	92.333	565	302	403	544	803
13SEP00:20:00	BASELINE	-	157.000	91.333	-	-	-	-	-
13SEP00:20:00	BASELINE	-	159.500	91.333	-	-	-	-	-
13SEP00:20:00	BASELINE	-	162.000	91.333	-	-	-	-	-
13SEP00:20:00	BASELINE	-	164.500	91.333	-	-	-	-	-
13SEP00:20:00	BASELINE	-	167.000	91.333	-	-	-	-	-
13SEP00:20:00	BASELINE	-	169.500	91.333	-	-	-	-	-
13SEP00:20:00	BASELINE	-	172.000	91.333	-	-	-	-	-
13SEP00:20:00	BASELINE	-	190.000	91.333	-	-	-	-	-
13SEP00:20:00	BASELINE	-	192.500	91.333	-	-	-	-	-
13SEP00:20:00	BASELINE	-	195.000	91.333	-	-	-	-	-
13SEP00:22:00	BASELINE	-	197.500	91.333	-	-	-	-	-
13SEP00:22:00	BASELINE	-	199.500	91.333	-	-	-	-	-
13SEP00:22:00	BASELINE	-	162.000	91.333	-	-	-	-	-
13SEP00:22:00	BASELINE	-	164.500	91.333	-	-	-	-	-

TIME	PURPOSE	CONFIG (Degrees)	ELEV	V_MEAN (BRIGHTNESS)	V_MIN (BRIGHTNESS)	V_MEDIAN (BRIGHTNESS)	V_MAX (BRIGHTNESS)	V_PER95 (BRIGHTNESS)	V_STD (BRIGHTNESS)	V_SKEW (DIMEN-0DIMEN-V_CMTS)	V_ENTRO (DIMEN-0DIMEN-V_CMTS)
13SEP00:22:00	BASELINE	-	91.333	-	-	-	-	-	-	-	-
13SEP00:22:00	BASELINE	-	167.000	-	-	-	-	-	-	-	-
13SEP00:22:00	BASELINE	-	169.500	91.333	-	-	-	-	-	-	-
13SEP00:22:00	BASELINE	-	172.000	91.333	-	-	-	-	-	-	-
13SEP00:22:00	BASELINE	-	190.000	91.333	-	-	-	-	-	-	-
13SEP00:22:00	BASELINE	-	192.500	91.333	-	-	-	-	-	-	-
13SEP00:22:00	BASELINE	-	195.000	91.333	-	-	-	-	-	-	-
13SEP00:22:00	BASELINE	-	197.500	91.333	-	-	-	-	-	-	-
13SEP00:22:00	BASELINE	-	200.000	91.333	-	-	-	-	-	-	-
13SEP00:22:00	BASELINE	-	202.500	91.333	-	-	-	-	-	-	-
13SEP00:22:00	BATT LINE	-	235.333	92.333	-	-	-	-	-	-	-
14SEP00:00:00	BASELINE	-	157.000	91.333	-	-	-	-	-	-	-
14SEP00:00:00	BASELINE	-	159.500	91.333	-	-	-	-	-	-	-
14SEP00:00:00	BASELINE	-	162.000	91.333	-	-	-	-	-	-	-
14SEP00:00:00	BASELINE	-	164.500	91.333	-	-	-	-	-	-	-
14SEP00:00:00	BASELINE	-	167.000	91.333	-	-	-	-	-	-	-
14SEP00:00:00	BASELINE	-	169.500	91.333	-	-	-	-	-	-	-
14SEP00:00:00	BASELINE	-	172.000	91.333	-	-	-	-	-	-	-
14SEP00:00:00	BASELINE	-	190.000	91.333	-	-	-	-	-	-	-
14SEP00:00:00	BASELINE	-	192.500	91.333	-	-	-	-	-	-	-
14SEP00:00:00	BASELINE	-	195.000	91.333	-	-	-	-	-	-	-
14SEP00:00:00	BASELINE	-	197.500	91.333	-	-	-	-	-	-	-
14SEP00:00:00	BASELINE	-	200.000	91.333	-	-	-	-	-	-	-
14SEP00:00:00	BASELINE	-	202.500	91.333	-	-	-	-	-	-	-
14SEP00:00:00	BASELINE	-	235.333	92.333	-	-	-	-	-	-	-

**APPENDIX D: THERMAL TARGET METRICS**

WES_NAME	TIME (DEGREES)	TGT_ELEV (DEGREES)	TGT_AZIM (DEGREES)	TYPE	ID	ORIENT	RANGE (METERS)	T_MEAN (Deg. C)	T_STD (Deg. C)	T_MIN (Deg. C)	T_MAX (Deg. C)	ICON_GIP (DIMEN-SION)	TIR2 (DIMEN-SION)
												1_P01 (UNIT)	1_P01 (UNIT)
0606R101	06SEP90:06:59	161.027	91.218	HULK	3	RR	1825	26.26	0.00	25.74	27.16	0.9755	0.26
0606R102	06SEP90:07:01	163.638	91.380	APC	15	RR	1731	26.80	0.03	26.15	26.74	1.0000	0.50
0606R102	06SEP90:07:01	165.343	91.173	HULK	4	RR	1924	26.94	0.00	26.42	27.67	0.9934	0.15
0606R104	06SEP90:07:04	169.878	91.425	APC	16	FF	1737	27.43	0.00	26.94	28.13	0.9940	0.30
0606R104	06SEP90:07:04	170.596	92.018	HULK	1	RB	1260	27.76	0.00	26.89	28.19	0.9952	0.24
0606R104	06SEP90:07:04	168.328	91.321	HULK	2	FF	1720	27.27	0.00	26.84	27.86	0.8817	0.12
0606R104	06SEP90:07:04	170.279	90.784	HULK	8	RB	2293	27.61	0.00	27.43	28.29	0.9965	0.30
0606R104	06SEP90:07:04	170.538	91.424	TANK	8	RR	1735	28.02	0.06	26.84	29.74	1.0000	0.83
0606R104	06SEP90:07:04	169.310	91.425	TRUCK	11	RF	1739	27.81	0.06	26.94	29.68	0.9996	0.72
0606R106	06SEP90:07:10	175.084	91.473	TANK	5	RR	1743	28.94	0.06	27.70	30.58	1.0000	0.90
0606R107	06SEP90:07:11	175.760	90.754	HULK	6	LL	1457	28.29	0.00	28.13	28.56	0.5857	0.18
0606R107	06SEP90:07:11	178.076	90.698	HULK	7	RR	3955	28.35	0.00	28.24	28.40	0.6228	-0.18
06110306	06SEP90:11:00	197.744	91.279	APC	-	RR	2600	39.20	0.11	37.90	40.78	0.9868	1.81
06110306	06SEP90:11:00	196.441	91.127	TANK	-	RR	2600	36.79	0.00	36.08	37.29	0.8229	0.00
06110308	06SEP90:11:06	201.484	91.093	TANK	-	RR	2600	38.60	0.11	36.99	39.89	0.9996	1.02
0708R201	07SEP90:08:18	161.027	91.218	HULK	3	RR	1825	33.12	0.00	32.34	33.80	0.8831	-0.06
0708R202	07SEP90:08:19	165.343	91.173	HULK	4	RR	1924	33.49	0.00	32.76	34.05	0.9218	-0.06
0708R203	07SEP90:08:20	167.736	90.817	APC	16	FR	2242	32.06	0.00	32.19	34.26	0.9112	-0.11
0708R203	07SEP90:08:20	168.824	90.722	TRUCK	11	RF	2211	34.11	0.11	31.77	37.41	1.0000	1.01
0708R204	07SEP90:08:21	170.496	92.018	HULK	1	RB	1260	33.59	0.06	32.34	35.64	0.9989	-0.06
0708R204	07SEP90:08:21	175.760	90.754	HULK	6	LL	3457	33.43	0.00	33.33	34.00	0.8173	-0.06
0708R204	07SEP90:08:21	168.328	91.321	HULK	2	FF	1720	33.80	0.00	33.33	34.05	0.9218	-0.06
0708R204	07SEP90:08:21	170.279	90.784	HULK	5	RB	2293	33.69	0.06	32.55	34.57	0.9665	0.40
0708R204	07SEP90:08:21	168.540	90.762	TANK	3	RR	2255	34.26	0.06	32.92	36.51	0.9998	1.07
0708R204	07SEP90:08:21	169.718	90.780	TANK	5	RF	2281	34.26	0.06	33.12	37.01	1.0000	0.96
0708R207	07SEP90:08:24	175.760	90.754	HULK	6	LL	3457	33.43	0.00	32.97	33.95	0.7087	-0.28
0708R207	07SEP90:08:24	178.076	90.698	HULK	7	RR	3955	34.00	0.00	33.59	34.26	0.8438	0.00
0710R201	07SEP90:10:35	161.027	91.218	HULK	3	RR	1825	42.10	0.11	38.20	45.05	0.9928	-0.54
0710R202	07SEP90:10:36	165.343	91.173	HULK	4	RR	1924	41.86	0.11	39.35	43.99	0.9444	-1.19
0710R203	07SEP90:10:37	167.718	90.813	APC	16	FR	2242	41.07	0.00	40.09	42.00	0.7162	-0.43
0710R203	07SEP90:10:37	166.847	90.724	TRUCK	11	RF	2211	41.81	0.05	40.24	43.31	0.8920	0.16
0710R204	07SEP90:10:38	170.596	92.018	HULK	1	RB	1260	39.94	0.05	37.50	42.73	0.8569	0.05
0710R204	07SEP90:10:38	168.328	91.321	HULK	2	FF	1720	43.22	0.11	39.84	45.57	0.9945	-0.22
0710R204	07SEP90:10:38	170.279	90.784	HULK	5	RB	2293	41.27	0.05	38.45	42.83	0.8645	-0.43
0710R204	07SEP90:10:38	168.565	90.768	TANK	3	RR	2255	41.47	0.05	40.33	43.36	0.9058	0.38
0710R204	07SEP90:10:38	169.737	90.773	TANK	1	RF	2281	41.61	0.05	40.53	43.56	0.9192	-0.22
0710R206	07SEP90:10:40	175.599	90.996	APC	15	RB	2119	42.05	0.05	39.05	43.41	0.9309	1.08
0710R207	07SEP90:10:41	175.760	90.754	HULK	6	LL	3457	41.32	0.05	40.58	42.29	0.8204	-0.16

WE_S_NAME	TIME (DEGREES)	TGL_AZIM (DEGREES)	TGL_ELEV (DEGREES)	TYPE	ID	ORIENT	RANGE (METERS)	T_MEAN (Deg. C)	T_SD (Deg. C)	T_MIN (Deg. C)	T_MAX (Deg. C)	T CONTR (Deg. C)	SIGN-LESS (UNIT)	SIGN-LESS (UNIT)	T_POT (# OF PIXELS)	T_CW_GTP (DIMEN- (0.1MM))	T_IR2 (DIMEN- (0.1MM))
0710R207	07SEP90:10:41	178.076	90.698	HULK	?	RR	3955	42.00	0.00	41.12	42.49	0.8369	0.33	0.7008	0.26	10	
0712S701	07SEP90:12:00	235.044	92.365	APC	15	RF	1197	45.74	0.32	42.16	50.89	0.8640	0.32	0.6651	0.01	105	
0712S701	07SEP90:12:00	235.799	92.275	TANK	5	RR	1269	45.65	0.21	42.37	49.32	0.8233	0.53	0.7561	0.02	105	
0712S701	07SEP90:12:00	234.672	92.404	TRUCK	16	RF	1149	43.73	0.32	41.10	49.97	0.8389	0.11	0.5777	0.00	136	
0803S701	08SEP90:03:16	235.026	92.399	APC	15	RF	1197	31.47	0.12	29.35	34.89	0.9991	0.70	0.9754	0.41	105	
0803S701	08SEP90:03:16	236.009	92.300	TANK	5	RR	1290	32.31	0.12	30.10	34.59	0.9993	1.05	0.9999	3.16	105	
0803S701	08SEP90:03:16	234.491	92.744	TRUCK	14	RF	976	31.15	0.24	28.61	38.43	1.0000	0.35	0.8754	0.10	171	
0803S702	08SEP90:03:21	235.026	92.399	APC	15	RF	1197	31.37	0.12	29.25	35.20	0.9995	0.82	0.9915	0.52	105	
0803S702	08SEP90:03:21	236.009	92.300	TANK	5	RR	1290	32.20	0.12	30.10	34.89	0.9993	0.96	0.9967	2.73	105	
0803S702	08SEP90:03:21	234.491	92.744	TRUCK	14	RF	976	30.94	0.24	28.50	37.53	1.0000	0.23	0.8175	0.05	171	
0803S703	08SEP90:03:26	235.026	92.399	APC	15	RF	1197	31.25	0.06	29.08	35.24	0.9997	0.80	0.9833	0.54	105	
0803S703	08SEP90:03:26	236.009	92.300	TANK	5	RR	1290	32.04	0.06	30.04	34.58	0.9995	0.80	0.9833	2.55	105	
0803S703	08SEP90:03:26	234.491	92.744	TRUCK	14	RF	976	30.41	0.11	28.39	36.72	1.0000	-0.23	0.2418	0.06	171	
0803S704	08SEP90:03:38	235.026	92.399	APC	15	RF	1197	30.82	0.06	28.69	35.02	0.9999	0.76	0.9828	0.44	105	
0803S704	08SEP90:03:38	236.009	92.300	TANK	5	RR	1290	31.50	0.06	29.49	33.84	0.9970	0.87	0.9945	2.44	105	
0803S704	08SEP90:03:38	234.491	92.744	TRUCK	14	RF	976	30.24	0.12	27.99	35.84	1.0000	-0.06	0.4569	0.00	171	
0803S705	08SEP90:03:56	235.026	92.399	APC	15	RF	1197	30.76	0.06	28.59	34.72	0.9998	0.81	0.9929	0.64	105	
0803S705	08SEP90:03:56	236.009	92.300	TANK	5	RR	1290	31.34	0.06	29.39	33.58	0.9843	0.76	0.9846	1.70	105	
0803S705	08SEP90:03:56	234.491	92.744	TRUCK	14	RF	976	30.13	0.12	27.99	35.74	1.0000	-0.06	0.4647	0.00	171	
0803S706	08SEP90:04:09	235.026	92.399	APC	15	RF	1197	30.76	0.06	28.26	34.77	0.9999	0.93	0.9934	0.73	105	
0803S706	08SEP90:04:09	236.009	92.300	TANK	5	RR	1290	31.08	0.06	29.28	33.33	0.9867	0.64	0.9704	1.48	105	
0803S706	08SEP90:04:09	234.491	92.744	TRUCK	14	RF	976	29.49	0.12	27.62	35.13	1.0000	-0.47	0.1032	0.18	171	
0804S801	08SEP90:04:53	234.892	92.338	APC	15	FF	1199	30.08	0.06	28.37	33.22	0.9999	0.47	0.9316	0.26	105	
0804S801	08SEP90:04:53	236.154	92.243	TANK	5	RF	1290	30.39	0.06	28.48	33.17	0.9997	0.59	0.9608	1.32	105	
0804S801	08SEP90:04:53	234.593	92.688	TRUCK	11	RR	976	29.76	0.06	27.24	34.30	1.0000	0.53	0.9478	0.26	171	
0804S802	08SEP90:05:04	234.892	92.338	APC	15	FF	1199	29.86	0.06	28.26	33.43	0.9999	0.35	0.9848	0.13	105	
0804S802	08SEP90:05:04	236.154	92.243	TANK	5	RF	1290	30.45	0.06	28.31	33.01	0.9968	0.47	0.9266	0.66	105	
0804S802	08SEP90:05:04	234.593	92.688	TRUCK	11	RR	976	29.81	0.06	27.24	34.20	1.0000	0.65	0.9728	0.41	171	
0804S803	08SEP90:05:13	234.892	92.338	APC	15	FF	1199	30.07	0.06	28.16	33.88	0.9999	0.41	0.8956	0.23	105	
0804S803	08SEP90:05:13	236.154	92.243	TANK	5	RF	1290	30.54	0.06	27.34	34.40	1.0000	0.41	0.9010	0.19	171	
0804S803	08SEP90:05:13	234.593	92.688	TRUCK	11	RR	976	29.86	0.06	28.47	33.26	0.9933	0.69	0.9720	1.38	105	
0804S804	08SEP90:05:22	236.892	92.338	APC	15	FF	1199	30.07	0.06	27.39	34.55	1.0000	0.52	0.9386	0.22	171	
0804S804	08SEP90:05:22	236.154	92.243	TANK	5	RF	1290	30.54	0.06	28.52	33.83	0.9999	0.52	0.9455	0.36	105	
0804S804	08SEP90:05:22	234.593	92.688	TRUCK	11	RR	976	29.86	0.06	27.34	34.40	1.0000	0.41	0.9010	0.19	171	
0804S805	08SEP90:05:43	236.892	92.338	APC	15	FF	1199	29.11	0.06	27.61	32.38	0.9910	0.23	0.8185	0.08	105	
0804S805	08SEP90:05:43	236.154	92.243	TANK	5	RF	1290	29.64	0.06	27.66	31.70	0.9488	0.58	0.9724	0.79	105	
0804S805	08SEP90:05:43	234.593	92.688	TRUCK	11	RR	976	29.16	0.06	26.63	34.40	1.0000	0.64	0.9809	0.43	171	

WES_NAME	TIME (DEGREES)	TGT_AZIM (DEGREES)	TGT_ELEV (DEGREES)	TYPE	IO ORIENT	RANGE (METERS)	I_MEAN (Deg. C)	I_SID (Deg. C)	I_MIN (Deg. C)	I_MAX (Deg. C)	SIGN.	I_LESS (deg. C)	I_CONTR (deg. C)	I_LESS (deg. C)	I_SION (deg. C)	I_TIR2 (DIMEN. (DIMEW))	IICON_GIP (DIMEW)
08065405	08SEP00:06:49	195.036	91.139	TANK	5	RR	2812	30.61	0.06	29.17	>	0.9954	1.27	0.9992	5.19	21	
08065405	08SEP00:06:49	194.298	91.131	TRUCK	11	RR	2862	30.40	0.00	29.92	<	0.8725	0.29	0.8882	0.51	21	
08065408	08SEP00:06:53	201.419	91.096	APC	15	RF	3240	29.97	0.06	29.17	<	0.8921	0.41	0.9792	0.67	21	
08065408	08SEP00:06:53	202.296	91.096	TRUCK	30	RR	3254	30.13	0.00	29.49	<	0.8530	0.52	0.9925	1.58	21	
08075505	08SEP00:07:33	195.038	91.130	TANK	5	FF	2808	32.05	0.06	31.47	<	0.9880	0.57	0.9940	2.52	21	
08075505	08SEP00:07:33	194.325	91.129	TRUCK	11	FF	2859	32.25	0.00	31.78	<	0.9000	0.29	0.9922	1.33	21	
08075508	08SEP00:07:37	201.427	91.106	APC	15	RR	3241	32.10	0.00	31.58	<	0.9000	0.40	0.9916	1.62	21	
08075508	08SEP00:07:37	202.286	91.099	TRUCK	30	FF	3253	32.10	0.00	31.63	<	0.9998	0.46	0.9972	3.70	21	
08085605	08SEP00:08:15	196.226	91.146	APC	15	FF	2859	35.44	0.00	34.88	<	0.9998	0.68	0.9967	6.73	21	
08085605	08SEP00:08:15	194.322	91.159	TRUCK	30	FF	2857	35.39	0.06	34.72	<	0.66	1.0000	0.73	0.9963	7.80	21
08085608	08SEP00:08:18	202.443	91.107	TANK	5	FF	3260	35.18	0.00	34.88	<	0.9987	0.45	0.9957	3.26	21	
08085608	08SEP00:08:18	202.284	91.101	TRUCK	11	RR	3212	35.39	0.06	34.82	<	0.60	1.0000	0.62	0.9996	6.10	21
08095902	08SEP00:09:54	192.643	91.003	TANK	3	FF	2862	48.85	0.00	48.66	<	0.8529	0.13	0.8082	0.20	21	
08095903	08SEP00:09:55	194.324	91.137	TANK	5	FF	3853	48.80	0.00	48.38	<	0.20	0.7279	-0.13	0.2237	0.19	10
08095906	08SEP00:08:58	202.094	91.104	TANK	1	FF	3241	49.67	0.00	49.39	<	0.99	0.3391	-0.17	0.8892	0.20	21
08095907	08SEP00:08:59	204.038	91.075	TANK	0	FF	3506	50.09	0.00	49.90	<	0.29	0.2222	-0.17	0.0834	0.35	21
1003R101	10SEP00:03:22	161.027	91.218	HULK	3	RR	1825	30.94	0.06	29.51	<	0.76	0.9915	0.86	0.9855	2.83	55
1003R102	10SEP00:03:24	163.638	91.380	APC	15	RR	1731	30.31	0.06	28.98	<	0.91	0.9736	0.69	0.9778	0.98	55
1003R102	10SEP00:03:24	165.343	91.173	HULK	4	RR	1924	31.47	0.06	29.89	<	0.81	0.9724	0.69	0.9778	0.83	55
1003R104	10SEP00:03:26	170.378	91.425	APC	16	FF	1737	30.47	0.06	29.14	<	0.60	0.9996	0.63	0.9453	0.50	55
1003R104	10SEP00:03:26	170.496	92.018	HULK	1	RR	1260	30.94	0.06	28.77	<	0.19	0.9969	0.63	0.9453	0.64	105
1003R104	10SEP00:03:26	168.328	91.321	HULK	2	FF	1720	30.15	0.06	28.71	<	0.76	0.9862	0.63	0.9453	1.01	55
1003R104	10SEP00:03:26	170.279	90.784	HULK	5	RR	2293	32.15	0.06	31.21	<	0.90	0.9724	0.74	0.9648	2.42	36
1003R104	10SEP00:03:26	169.810	91.425	TRUCK	11	RF	1739	29.83	0.06	28.50	<	0.31	0.6989	-0.17	0.2939	0.02	55
1003R105	10SEP00:03:27	171.051	91.424	TANK	3	RR	1735	30.73	0.11	29.19	<	0.00	0.2627	0.34	0.8296	0.05	55
1003R107	10SEP00:03:30	175.760	90.754	HULK	6	LL	3457	32.72	0.00	32.25	<	0.35	0.8588	0.40	0.8704	0.79	21
1003R107	10SEP00:03:30	178.076	90.698	HULK	7	RR	3955	33.29	0.00	32.67	<	0.81	0.8976	0.52	0.9322	0.66	10
1003R107	10SEP00:03:30	177.584	91.473	TANK	5	RR	1743	31.15	0.11	29.14	<	0.33	0.9533	1.65	1.0000	2.45	55
1004.R201	10SEP00:04:27	161.027	91.218	HULK	3	RR	1825	29.95	0.06	28.57	<	0.53	0.9693	0.61	0.9906	2.02	55
1004.R202	10SEP00:04:28	165.343	91.173	HULK	4	RR	1924	30.59	0.06	29.00	<	0.58	0.9657	0.64	0.9699	0.54	55
1004.R203	10SEP00:04:29	167.740	90.847	APC	16	RR	2239	30.91	0.06	30.11	<	0.27	0.9968	0.23	0.7909	0.29	36
1004.R203	10SEP00:04:30	166.870	90.752	TRUCK	11	RF	2213	31.64	0.06	30.59	<	0.90	1.0000	1.04	0.9900	0.25	36
1004.R204	10SEP00:04:30	170.496	92.018	HULK	1	RR	1260	30.06	0.06	28.03	<	0.96	0.9827	0.58	0.9365	0.59	105
1004.R204	10SEP00:04:30	168.328	91.321	HULK	2	FF	1720	29.37	0.06	27.82	<	0.75	0.9589	0.52	0.9202	0.59	55
1004.R204	10SEP00:04:30	170.279	90.784	HULK	5	RR	2293	31.54	0.06	30.70	<	0.31	0.9987	0.69	0.9571	2.88	36
1004.R204	10SEP00:04:30	168.566	90.808	TANK	3	RF	2224	31.90	0.06	30.38	<	0.03	0.9997	1.16	0.9904	5.35	36
1004.R204	10SEP00:04:30	169.727	90.813	TANK	5	RF	2282	32.01	0.06	30.59	<	0.00	1.0000	1.44	0.9973	12.18	36

WES_NAME	TIME	TGT_AZIM (DEGREES)	TGT_ELEV (DEGREES)	TYPE	ID	ORIENT	RANGE (METERS)	T_MEAN (Deg. C)	T_STD (Deg. C)	T_MIN (Deg. C)	T_MAX (Deg. C)	T_GIP (DIMEN- SION- LESS UNIT)	T_GIP (DIMEN- SION- LESS UNIT)	T_IIR2 (DIMEN- SION- LESS UNIT)		
1004R207	10SEP00:04:33	175.760	90.754	HULK	6	LL	3657	32.11	0.00	31.54	32.84	0.8630	0.29	0.8662	0.54	21
1004R207	10SEP00:04:33	178.076	90.698	HULK	7	RR	3955	32.84	0.00	32.43	33.41	0.9295	0.52	0.9212	1.06	10
1005R301	10SEP00:05:46	161.027	91.218	HULK	3	RR	1825	29.52	0.06	28.02	31.89	0.9367	0.75	0.9331	1.92	55
1005R302	10SEP00:05:48	165.343	91.173	HULK	4	RR	1924	30.21	0.12	28.40	32.31	0.9534	0.61	0.9613	0.36	55
1005R304	10SEP00:05:50	168.328	91.321	HULK	2	FF	1720	29.15	0.12	27.64	31.58	0.9147	0.49	0.9026	0.73	55
1005R304	10SEP00:05:50	170.279	90.786	HULK	5	RB	2293	31.58	0.12	30.74	33.14	0.9998	0.73	0.9558	2.49	36
1005R306	10SEP00:05:53	175.733	90.752	TANK	3	RR	3900	32.21	0.00	31.89	32.94	0.8523	0.49	0.9143	1.62	10
1005R307	10SEP00:05:54	176.696	90.641	APC	15	RR	3888	32.41	0.12	31.47	33.45	0.9452	0.24	0.7747	0.07	10
1005R307	10SEP00:05:54	177.912	90.714	APC	16	FF	3895	30.95	0.00	30.74	31.26	0.6996	-0.12	0.4394	0.50	10
1005R307	10SEP00:05:54	175.760	90.754	HULK	6	LL	3457	31.89	0.00	31.26	32.62	0.8627	0.49	0.8972	0.72	21
1005R307	10SEP00:05:54	178.076	90.698	HULK	7	RR	3955	32.62	0.12	31.37	33.56	0.9550	0.61	0.9465	0.50	10
1005R307	10SEP00:05:54	177.321	90.679	TANK	5	RF	3879	33.14	0.12	32.00	33.97	0.9820	0.85	0.9110	0.90	10
1005R307	10SEP00:05:54	177.659	90.674	TRUCK	11	RF	3885	33.04	0.12	32.21	34.16	0.9899	0.73	0.9770	1.30	10
1008R101	10SEP00:08:07	161.027	91.218	HULK	3	RR	1825	33.81	0.00	33.29	34.42	0.9030	-0.17	0.2798	0.17	55
1008R102	10SEP00:08:08	163.759	91.351	APC	15	RR	1730	36.99	0.06	34.06	38.08	1.0000	0.96	0.9932	5.83	55
1008R102	10SEP00:08:08	165.343	91.173	HULK	4	RR	1924	33.86	0.00	33.24	34.42	0.8496	-0.34	0.1321	1.46	55
1008R104	10SEP00:08:11	170.496	92.018	HULK	1	RB	1260	33.81	0.06	32.77	36.06	0.9986	-0.06	0.4429	0.01	105
1008R104	10SEP00:08:11	168.320	91.321	HULK	2	FF	1720	34.22	0.00	33.60	34.78	0.9667	0.06	0.6375	0.04	55
1008R104	10SEP00:08:11	170.279	90.786	HULK	5	RB	2293	32.51	0.00	32.09	33.86	0.6090	-0.40	0.0588	0.52	36
1008R104	10SEP00:08:11	170.031	91.389	TRUCK	11	RF	1730	35.40	0.11	33.55	40.02	1.0000	1.53	0.9990	0.96	55
1008R105	10SEP00:08:13	170.782	91.389	APC	16	FF	1730	33.01	0.00	33.24	34.58	0.9475	-0.45	0.9555	3.60	55
1008R105	10SEP00:08:13	171.545	91.389	TANK	3	RR	1730	36.27	0.06	32.98	36.16	1.0000	1.13	1.0000	15.79	55
1008R107	10SEP00:08:15	175.760	90.754	HULK	6	LL	3457	32.67	0.06	32.15	33.39	0.7143	-0.23	0.1648	0.10	21
1008R107	10SEP00:08:15	178.076	90.698	HULK	7	RR	3955	32.77	0.00	32.67	32.98	0.3580	-0.28	0.0946	1.66	10
1008R107	10SEP00:08:15	177.019	91.455	TANK	5	RR	1730	34.40	0.06	33.08	36.72	1.0000	1.36	1.0000	24.14	55
1104S104	12SEP00:04:22	191.598	91.185	TANK	0	RR	2639	30.63	0.12	28.93	31.79	0.8002	0.12	0.6216	0.02	21
1104S104	12SEP00:04:22	192.169	91.187	TANK	1	FF	2657	30.21	0.12	28.83	31.16	0.7626	-0.12	0.3953	0.02	21
1104S106	12SEP00:04:25	197.664	91.141	APC	16	RR	2968	30.42	0.06	29.46	31.37	0.8575	0.52	0.9188	0.46	21
1104S106	12SEP00:04:25	197.049	91.141	TRUCK	11	RF	2943	29.67	0.06	28.71	31.37	0.8575	-0.46	0.1693	0.25	21
1104S106	12SEP00:04:25	196.297	91.142	TRUCK	14	RR	2898	29.67	0.00	29.25	30.47	0.6159	-0.86	0.0513	1.73	21
1104S204	11SEP00:04:45	191.619	91.176	TANK	0	RF	2639	30.94	0.12	29.67	31.99	0.7937	0.12	0.6241	0.06	21
1104S204	11SEP00:04:45	192.174	91.175	TANK	1	RR	2658	30.84	0.12	29.67	32.41	0.8271	0.24	0.7434	0.11	21
1104S204	11SEP00:04:45	193.210	91.139	TRUCK	14	FF	2898	30.21	0.12	29.25	31.15	0.7180	-1.09	0.0167	1.84	21
1104S206	11SEP00:04:46	197.674	91.131	APC	16	FF	2968	29.57	0.00	28.50	30.42	0.7815	-0.12	0.4127	0.02	21
1104S206	11SEP00:04:46	197.136	91.139	TRUCK	11	RR	2944	29.35	0.12	28.39	31.05	0.8529	-0.48	0.1725	0.29	21
1104S208	11SEP00:04:48	202.006	91.108	APC	15	RR	3269	29.89	0.12	29.14	31.15	0.8230	-0.36	0.2030	0.24	21
1104S208	11SEP00:04:48	201.511	91.109	TANK	3	RF	3240	30.42	0.12	29.14	31.78	0.8680	-0.72	0.9867	0.86	21

WFS_NAME	TIME	TGT_AZTH	TGT_ELEV	TYPE	ID	ORIENT	RANGE	T_MEAN	T_SD	T_MIN	T_MAX	T CONTR	T (deg. C)	SIGN.	T_SON.	T_LESS	T LESS (# OF UNITS)	T_POT	T_COU_GIP	T_COU_GIP	T_COU_R2
		(DEGREES)	(DEGREES)				(METERS)	(Deg. C)					(DIMEN-	(DIMEN-	(DIMEN-						
11085804	11SEP00:08:27	192.167	91.179	TANK	3	RR	2721	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11085804	11SEP00:08:27	192.923	91.186	TANK	5	FF	2690	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11085806	11SEP00:08:31	197.673	91.151	APC	16	RR	2968	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11085806	11SEP00:08:31	196.389	91.149	TRUCK	11	RR	2913	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11085806	11SEP00:08:31	197.061	91.154	TRUCK	14	FF	2916	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11085808	11SEP00:08:35	201.408	91.119	APC	15	RR	3261	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11095C04	11SEP00:09:16	192.239	91.186	TANK	3	RF	2720	40.65	0.12	39.46	41.82	0.9979	1.54	0.9981	3.56	21	-	-	-	-	-
11095C04	11SEP00:09:16	192.904	91.193	TANK	5	RR	2690	40.84	0.12	39.66	41.82	0.9979	1.43	0.9986	3.89	21	-	-	-	-	-
11095C05	11SEP00:09:19	196.209	91.156	TRUCK	11	FF	2902	41.04	0.12	39.26	42.60	1.0000	0.95	0.9528	1.38	21	-	-	-	-	-
11095C06	11SEP00:09:20	197.657	91.155	APC	16	FF	2968	40.92	0.00	40.04	41.41	0.9437	0.57	0.8981	0.52	21	-	-	-	-	-
11095C06	11SEP00:09:20	196.996	91.155	TRUCK	14	RR	2933	40.53	0.11	39.34	41.51	0.9581	0.46	0.8626	0.19	21	-	-	-	-	-
11095C08	11SEP00:09:25	201.473	91.124	APC	15	RR	3240	42.49	0.00	42.15	42.88	1.0000	1.25	0.9998	2.61	21	-	-	-	-	-
11095D04	11SEP00:09:49	192.874	91.189	APC	16	RR	2695	42.15	0.11	40.78	43.70	0.9437	0.00	0.6183	0.00	21	-	-	-	-	-
11095D05	11SEP00:09:51	194.305	91.156	TANK	3	RR	2862	42.54	0.11	41.66	43.60	0.9172	1.02	0.9192	1.48	21	-	-	-	-	-
11095D05	11SEP00:09:51	196.073	91.155	TANK	5	RF	2913	42.73	0.11	41.27	43.60	0.9172	0.68	0.8864	0.57	21	-	-	-	-	-
11095D07	11SEP00:09:53	201.043	91.126	TRUCK	14	RR	3211	44.47	0.00	43.99	45.05	0.9941	1.36	0.9886	2.87	21	-	-	-	-	-
11105006	11SEP00:10:45	196.455	91.023	TANK	5	RF	3858	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11105007	11SEP00:10:47	200.019	91.046	APC	15	RF	3756	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11105008	11SEP00:10:48	202.558	91.063	TRUCK	14	RF	3647	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11105404	11SEP00:10:16	192.910	91.191	TANK	5	RR	2686	43.60	0.11	42.25	44.85	0.9151	0.44	0.8357	0.14	21	-	-	-	-	-
11105404	11SEP00:10:16	192.149	91.185	TRUCK	11	RR	2713	44.38	0.22	41.66	46.28	0.9856	1.65	0.9770	1.19	21	-	-	-	-	-
12025404	12SEP00:02:37	192.859	91.146	TANK	5	RR	2686	30.29	0.06	28.91	32.50	1.0000	0.64	0.988	1.43	21	-	-	-	-	-
12025404	12SEP00:02:37	191.534	91.185	TRUCK	11	RR	2645	29.50	0.06	28.43	30.19	0.7701	0.06	0.3971	0.01	21	-	-	-	-	-
12025408	12SEP00:02:41	201.438	91.115	APC	15	FF	3240	28.43	0.00	28.00	29.23	0.3483	0.12	0.3641	0.08	21	-	-	-	-	-
12025408	12SEP00:02:41	201.984	91.113	TRUCK	14	RR	3253	29.07	0.06	28.16	30.03	0.7876	0.23	0.8011	0.35	21	-	-	-	-	-
12035C04	12SEP00:03:52	192.268	91.176	TANK	3	RF	2717	28.98	0.06	27.53	29.89	0.7947	0.18	0.7441	0.11	21	-	-	-	-	-
12035C04	12SEP00:03:52	192.859	91.146	TANK	5	RR	2686	29.20	0.06	28.02	30.84	0.9081	0.30	0.8378	0.22	21	-	-	-	-	-
12035C05	12SEP00:03:53	195.665	91.154	APC	16	FF	2866	29.25	0.00	28.93	29.63	0.8095	0.47	0.9394	0.43	21	-	-	-	-	-
12035C05	12SEP00:03:53	194.496	91.168	TRUCK	11	FF	2812	28.88	0.00	28.24	29.52	0.8033	0.59	0.9610	1.12	21	-	-	-	-	-
12035C05	12SEP00:03:53	195.090	91.162	TRUCK	14	RR	2829	28.56	0.06	27.10	30.10	0.8431	0.83	0.9940	0.76	21	-	-	-	-	-
12035C08	12SEP00:03:55	201.944	91.109	APC	15	RR	3251	28.45	0.00	27.48	29.20	0.8152	0.18	0.7437	0.06	21	-	-	-	-	-
12045904	12SEP00:04:42	192.145	91.186	TANK	3	FF	2702	27.90	0.06	27.09	28.86	0.8536	0.24	0.7662	0.12	21	-	-	-	-	-
12045906	12SEP00:04:44	198.744	91.140	TANK	1	FF	3047	27.95	0.06	27.14	29.02	0.8889	-0.18	0.3111	0.12	21	-	-	-	-	-
12045906	12SEP00:04:44	196.505	91.014	TANK	5	FF	3854	28.43	0.06	27.25	28.86	0.8750	0.29	0.8421	0.14	10	-	-	-	-	-
12045907	12SEP00:04:45	198.744	91.140	TANK	1	FF	3047	27.90	0.06	27.03	28.92	0.8944	0.18	0.7581	0.09	21	-	-	-	-	-
12045908	12SEP00:04:46	202.110	91.113	TANK	0	FF	5282	27.79	0.00	27.09	28.38	0.7721	0.00	0.5088	0.00	21	-	-	-	-	-
12085006	12SEP00:06:33	196.457	91.071	TANK	0	RF	3857	28.33	0.00	27.84	28.86	0.8471	0.24	0.8573	0.21	10	-	-	-	-	-

WES_NAME	TIME	TGL_AZIM (DEGREES)	TGL_ELEV (DEGREES)	TYPE	ID	ORIENT	(METERS)	T_MEAN (Deg. C)	T_STD (Deg. C)	T_MIN (Deg. C)	T_MAX (Deg. C)	T_GIP		T_VIR2	
												DIMEN-	SION- UNIT	STON- LESS	T_POT (# OF PIXELS)
12065007	12SEP00:06:33	199.832	91.032	APC	16	RR	3739	27.30	0.06	26.49	28.43	0.7548	-0.18	0.2603	0.06
12065008	12SEP00:06:35	202.761	91.058	TRUCK	10	RF	3600	28.76	0.00	28.54	28.97	0.8123	0.06	0.6687	0.03
BL0203	13SEP00:02:00	161.027	91.218	HULK	3	RR	1825	28.77	0.24	26.83	32.06	1.0000	0.60	0.9280	0.35
BL0204	13SEP00:02:00	165.343	91.173	HULK	4	RR	1924	30.77	0.06	28.91	32.83	0.9978	0.67	0.9604	0.59
BL0205	13SEP00:02:00	170.496	92.018	HULK	1	RB	1260	30.72	0.06	28.53	32.62	1.0000	0.67	0.9570	0.89
BL0206	13SEP00:02:00	168.328	91.321	HULK	2	FF	1720	29.12	0.06	27.72	31.51	0.9984	0.39	0.8673	0.29
BL0206	13SEP00:02:00	170.279	90.784	HULK	5	RB	2293	30.14	0.06	29.34	31.35	0.9979	0.56	0.9353	2.61
BL0403	13SEP00:04:00	161.027	91.218	HULK	3	RR	1825	28.23	0.06	26.82	30.90	0.9989	0.85	0.9915	1.99
BL0404	13SEP00:04:00	165.343	91.173	HULK	4	RR	1924	28.71	0.06	27.25	30.95	0.9988	0.51	0.9508	0.54
BL0406	13SEP00:04:00	170.496	92.018	HULK	1	RB	1260	28.55	0.06	26.44	30.90	1.0000	0.79	0.9694	1.89
BL0406	13SEP00:04:00	168.328	91.321	HULK	2	FF	1720	27.58	0.06	25.95	30.21	0.9984	0.62	0.9407	1.14
BL0406	13SEP00:04:00	170.279	90.784	HULK	5	RB	2293	29.03	0.06	28.07	30.63	0.9996	0.57	0.9276	2.79
BL0603	13SEP00:06:00	161.027	91.218	HULK	3	RR	1825	27.15	0.06	25.84	29.30	0.9875	0.62	0.9815	1.38
BL0604	13SEP00:06:00	165.343	91.173	HULK	4	RR	1924	27.85	0.06	26.39	29.57	0.9713	0.45	0.9485	0.36
BL0606	13SEP00:06:00	173.496	92.018	HULK	1	RB	1260	28.01	0.06	26.06	29.73	0.9996	0.45	0.9218	0.56
BL0606	13SEP00:06:00	168.328	91.321	HULK	2	FF	1720	26.93	0.06	26.00	28.98	0.9437	0.17	0.7486	0.06
BL0606	13SEP00:06:00	170.279	90.784	HULK	5	RB	2293	28.93	0.00	28.07	30.05	1.0000	0.51	0.9391	1.42
BL0803	13SEP00:08:00	161.027	91.218	HULK	3	RR	1825	30.97	0.00	30.28	31.50	0.8713	-0.22	0.1670	0.71
BL0804	13SEP00:08:00	165.343	91.173	HULK	4	RR	1924	31.40	0.00	31.03	31.71	0.7735	-0.28	0.0962	1.45
BL0806	13SEP00:08:00	170.496	92.018	HULK	1	RB	1260	32.55	0.06	31.92	34.48	0.9962	0.05	0.6651	0.05
BL0806	13SEP00:08:00	168.328	91.321	HULK	2	FF	1720	33.08	0.00	32.50	33.70	0.9655	-0.05	0.4517	0.04
BL0806	13SEP00:08:00	170.279	90.784	HULK	5	RB	2293	32.13	0.00	31.77	32.66	0.5028	-0.05	0.4517	0.05
BL1003	13SEP00:10:00	161.027	91.218	HULK	3	RR	1825	39.46	0.05	36.42	41.80	0.9843	-0.72	0.1130	0.71
BL1004	13SEP00:10:00	165.343	91.173	HULK	4	RR	1924	38.90	0.05	36.47	41.45	0.9410	-0.83	0.0958	0.31
BL1006	13SEP00:10:00	170.496	92.018	HULK	1	RB	1260	38.20	0.05	36.11	41.70	0.9444	0.16	0.6395	0.01
BL1006	13SEP00:10:00	168.328	91.321	HULK	2	FF	1720	40.95	0.05	37.94	42.44	0.9830	0.16	0.6395	0.01
BL1006	13SEP00:10:00	170.279	90.784	HULK	5	RB	2293	39.46	0.05	37.08	40.80	0.8622	-0.31	0.3505	0.22
BL1203	13SEP00:12:00	161.027	91.218	HULK	3	RR	1825	43.40	0.63	45.58	49.14	0.9714	-1.25	0.1077	0.96
BL1204	13SEP00:12:00	165.343	91.173	HULK	4	RR	1924	42.13	0.10	39.44	44.19	0.8306	-0.84	0.1566	0.22
BL1206	13SEP00:12:00	170.496	92.018	HULK	1	RB	1260	41.44	0.10	39.44	45.84	0.9579	0.63	0.8146	0.14
BL1206	13SEP00:12:00	168.328	91.321	HULK	2	FF	1720	44.58	0.10	41.14	46.99	0.9961	-0.42	0.3286	0.13
BL1206	13SEP00:12:00	170.279	90.784	HULK	5	RB	2293	42.02	0.10	40.14	44.28	0.8055	-0.84	0.2105	1.58
BL1403	13SEP00:14:00	161.027	91.218	HULK	3	RR	1825	46.01	0.20	43.51	49.62	0.9537	-0.71	0.1651	0.56
BL1404	13SEP00:14:00	165.343	91.173	HULK	4	RR	1924	45.55	0.10	42.92	47.76	0.8011	-0.71	0.1874	0.10
BL1406	13SEP00:14:00	170.496	92.018	HULK	1	RB	1260	44.77	0.10	42.52	48.23	0.8305	-0.81	0.8437	0.21
BL1406	13SEP00:14:00	168.328	91.321	HULK	2	FF	1720	48.23	0.10	45.64	50.12	0.9861	0.10	0.4711	0.01
BL1406	13SEP00:14:00	170.279	90.784	HULK	5	RB	2293	46.60	0.10	44.57	47.85	0.7794	-1.02	0.1862	1.75

WES NAME	TIME	TG1_AZIM (DEGREES)	TG1_ELEV (DEGREES)	ID	ORIENT	RANGE (METERS)	T_MEAN (DEG. C)	T_STD (DEG. C)	T_MIN (DEG. C)	T_MAX (DEG. C)	T_CONTR (Deg. C)	SLOP (0.1MM)	SLON- LESS (# OF UNIT)	T_POT (0.1MM)	ICOM_GIP (0.1MM)	T_TIR2
BL1603	13SEP00:16:00	161.027	91.218	MULK	3	RR	1825	45.65	0.10	44.20	47.19	0.9305	-0.61	0.1954	-0.69	55
BL1604	13SEP00:16:00	165.343	91.173	MULK	4	RR	1924	44.88	0.10	42.73	46.91	0.9248	-0.10	0.4726	0.00	55
BL1606	13SEP00:16:00	170.496	92.018	MULK	1	RB	1260	44.78	0.10	42.83	46.33	0.7378	1.32	0.9784	1.05	105
BL1606	13SEP00:16:00	168.328	91.321	MULK	2	FF	1720	46.71	0.10	45.66	47.58	0.9405	0.41	0.7717	0.13	55
BL1606	13SEP00:16:00	170.279	90.784	MULK	5	RB	2293	45.75	0.00	45.07	46.81	0.8091	-0.61	0.2633	0.29	36
BL1803	13SEP00:18:00	161.027	91.218	MULK	3	RR	1825	41.51	0.05	40.82	42.75	0.9878	0.20	0.8576	0.55	55
BL1804	13SEP00:18:00	165.343	91.173	MULK	4	RR	1924	41.32	0.05	40.37	42.50	0.9872	0.30	0.9197	0.54	55
BL1806	13SEP00:18:00	170.496	92.018	MULK	1	RB	1260	41.91	0.05	40.32	44.70	1.0000	1.42	1.0000	15.06	105
BL1806	13SEP00:18:00	168.328	91.321	MULK	2	FF	1720	41.37	0.05	40.92	42.75	0.9864	0.46	0.9564	3.40	55
BL1806	13SEP00:18:00	170.279	90.784	MULK	5	RB	2293	41.46	0.05	40.42	43.43	0.9970	0.30	0.8918	0.21	36
BL2003	13SEP00:20:00	161.027	91.218	MULK	3	RR	1825	40.76	0.05	39.72	43.28	1.0000	0.78	0.9951	3.15	55
BL2004	13SEP00:20:00	165.343	91.173	MULK	4	RR	1924	41.11	0.05	39.67	43.04	1.0000	0.57	0.9770	1.07	55
BL2006	13SEP00:20:00	170.496	92.018	MULK	1	RB	1260	42.15	0.11	39.87	44.50	1.0000	0.87	0.9920	2.39	105
BL2006	13SEP00:20:00	168.328	91.321	MULK	2	FF	1720	40.76	0.11	39.57	43.04	0.9978	0.54	0.9632	0.99	55
BL2006	13SEP00:20:00	170.279	90.784	MULK	5	RB	2293	41.26	0.11	40.27	43.33	0.9986	0.65	0.9795	0.13	36
BL2203	13SEP00:22:00	161.027	91.218	MULK	3	RR	1825	36.87	0.05	35.70	39.15	1.0000	0.53	0.9763	1.91	55
BL2204	13SEP00:22:00	165.343	91.173	MULK	4	RR	1924	37.38	0.05	36.05	39.10	1.0000	0.53	0.9787	1.11	55
BL2206	13SEP00:22:00	170.496	92.018	MULK	1	RB	1260	38.24	0.05	36.31	40.15	1.0000	0.69	0.9889	2.09	105
BL2206	13SEP00:22:00	168.328	91.321	MULK	2	FF	1720	37.08	0.05	35.65	39.10	0.9979	0.53	0.9762	1.36	55
BL2206	13SEP00:22:00	170.279	90.784	MULK	5	RB	2293	37.63	0.05	36.97	39.30	0.9987	0.50	0.9819	11.29	36
BL2203	14SEP00:00:00	161.027	91.218	MULK	3	RR	1825	34.37	0.05	33.34	36.33	1.0000	0.48	0.9784	2.30	55
BL2204	14SEP00:00:00	165.343	91.173	MULK	4	RR	1924	34.89	0.05	33.80	36.33	1.0000	0.43	0.9773	0.87	55
BL2206	14SEP00:00:00	170.496	92.018	MULK	1	RB	1260	35.05	0.05	33.28	36.69	1.0000	0.59	0.9868	1.87	105
BL2206	14SEP00:00:00	168.328	91.321	MULK	2	FF	1720	34.22	0.05	33.13	35.92	0.9978	0.48	0.9759	1.09	55
BL2206	14SEP00:00:00	170.279	90.784	MULK	5	RB	2293	34.99	0.00	34.43	36.33	0.9992	0.48	0.9759	5.58	36

**APPENDIX E: VISIBLE TARGET METRICS**

WES_NAME	ID	V_MEAN (BRIGHT- NESS VALUE)	V_STD (BRIGHT- NESS VALUE)	V_MAX (BRIGHT- NESS VALUE)	V_MIN (BRIGHT- NESS VALUE)	WORK_GTP	VCOM_GTP	DARK_CON (DIMEN- SION- LESS UNIT)	IMG_AZIN (DEGREES)	IMG_ELEV (DEGREES)
0606R101	3								TRAINING	162.000
0606R102	15								TRAINING	164.500
0606R102	4								TRAINING	164.500
0606R104	16								TRAINING	169.500
0606R104	1								TRAINING	169.500
0606R104	2								TRAINING	169.500
0606R104	5								TRAINING	169.500
0606R104	3								TRAINING	169.500
0606R104	11								TRAINING	169.500
0606R106	5								TRAINING	174.500
0606R106	5								TRAINING	177.000
0606R107	6								TRAINING	177.000
0606R107	7								TRAINING	177.000
06110306	2836	478	3710	1774	0.9760	473	0.9654	2.8910	351	Demonstration
06110306	1978	442	3217	1374	0.9964	552	0.9831	1.4300	351	Demonstration
06110308	2701	549	3401	1502	0.9965	407	0.9636	3.4650	351	Demonstration
0708R201	3								TRAINING	162.000
0708R202	4								TRAINING	164.500
0708R203	16								TRAINING	167.000
0708R203	11								TRAINING	167.000
0708R204	1								TRAINING	169.500
0708R204	2								TRAINING	169.500
0708R204	5								TRAINING	169.500
0708R204	3								TRAINING	169.500
0708R204	5								TRAINING	169.500
0708R207	6								TRAINING	177.000
0708R207	7								TRAINING	162.000
0710R201	3								TRAINING	164.500
0710R204	2								TRAINING	167.000
0710R202	4								TRAINING	169.500
0710R203	16								TRAINING	169.500
0710R203	11								TRAINING	167.000
0710R204	1								TRAINING	169.500
0710R204	2								TRAINING	169.500
0710R204	5								TRAINING	169.500
0710R206	5								TRAINING	169.500
0710R206	15								TRAINING	174.500
0710R207	6								TRAINING	177.000

WFS_NAME	ID	V_MEAN (BRIGHT- NESS VALUE)	V_STD (BRIGHT- NESS VALUE)	V_MAX (BRIGHT- NESS VALUE)	V_MIN (BRIGHT- NESS VALUE)	WDK_GTP (DIMEN- SION- LESS MESS UNIT)	DARK_CON (BRIGHT- NESS MESS UNIT)	VCON_GTP (DIMEN- SION- LESS MESS UNIT)	V_POT (# OF PIXELS)	PURPOSE	IMG_AZTH (DEGREES)	IMG_ELEV (DEGREES)
0710R207	7									TRAINING	177.000	91.33
0712S701	15									TESTING	235.284	92.33
0712S701	5									TESTING	235.284	92.33
0712S701	14									TESTING	235.284	92.33
0803S701	15									TESTING	235.284	92.33
0803S701	5									TESTING	235.284	92.33
0803S701	14									TESTING	235.284	92.33
0803S701	14									TESTING	235.284	92.33
0803S702	15									TESTING	235.284	92.33
0803S702	5									TESTING	235.284	92.33
0803S702	14									TESTING	235.284	92.33
0803S703	15									TESTING	235.284	92.33
0803S703	5									TESTING	235.284	92.33
0803S703	14									TESTING	235.284	92.33
0803S704	15									TESTING	235.284	92.33
0803S704	5									TESTING	235.284	92.33
0803S704	14									TESTING	235.284	92.33
0803S705	15									TESTING	235.284	92.33
0803S705	5									TESTING	235.284	92.33
0803S705	14									TESTING	235.284	92.33
0803S705	14									TESTING	235.284	92.33
0803S706	15									TESTING	235.284	92.33
0803S706	5									TESTING	235.277	92.33
0803S706	14									TESTING	235.284	92.33
0804S801	15									TESTING	235.277	92.33
0804S801	5									TESTING	235.277	92.33
0804S801	11									TESTING	235.277	92.33
0804S801	11									TESTING	235.277	92.33
0804S802	15									TESTING	235.277	92.33
0804S802	5									TESTING	235.277	92.33
0804S802	11									TESTING	235.277	92.33
0804S803	15									TESTING	235.277	92.33
0804S803	5									TESTING	235.277	92.33
0804S803	11									TESTING	235.277	92.33
0804S804	15									TESTING	235.277	92.33
0804S804	5									TESTING	235.277	92.33
0804S804	11									TESTING	235.277	92.33
0804S805	15									TESTING	235.277	92.33
0804S805	5									TESTING	235.277	92.33
0804S805	11									TESTING	235.277	92.33

WFS_NAME	V_MEAN (BRIGHT- NESS VALUE)	V_STD (BRIGHT- NESS VALUE)	V_MAX (BRIGHT- NESS VALUE)	V_MIN (BRIGHT- NESS VALUE)	WORK_GIP (DIMEN- SION- LESS UNIT)	DARK_CON (BRIGHT- NESS LESS UNIT)	V_TIR2 (DIMEN- SION- LESS UNIT)	V_POT (# OF PIXELS)	PURPOSE	IMG_AZTH (DEGREES)	IMG_ELEV (DEGREES)
08065405	5	10	15	5	TESTING	195.000	195.000	195.000	TESTING	91.25	91.25
08065405	11	10	15	5	TESTING	195.000	195.000	195.000	TESTING	91.25	91.25
08065408	15	10	30	5	TESTING	195.000	195.000	195.000	TESTING	91.25	91.25
08065408	30	10	30	5	TESTING	195.000	195.000	195.000	TESTING	91.25	91.25
08075505	5	11	11	1	TESTING	195.000	195.000	195.000	TESTING	91.25	91.25
08075505	11	10	15	1	TESTING	195.000	195.000	195.000	TESTING	91.25	91.25
08075508	15	10	30	1	TESTING	195.000	195.000	195.000	TESTING	91.25	91.25
08075508	30	10	30	1	TESTING	195.000	195.000	195.000	TESTING	91.25	91.25
08085605	15	10	30	5	TESTING	195.000	195.000	195.000	TESTING	91.25	91.25
08085605	30	10	30	5	TESTING	195.000	195.000	195.000	TESTING	91.25	91.25
08085608	5	10	15	1	TESTING	195.000	195.000	195.000	TESTING	91.25	91.25
08085608	11	10	11	1	TESTING	195.000	195.000	195.000	TESTING	91.25	91.25
08095902	3	10	5	5	TESTING	192.500	192.500	192.500	TESTING	91.00	91.00
08095903	5	10	5	5	TESTING	195.000	195.000	195.000	TESTING	91.00	91.00
08095906	1	10	1	1	TESTING	192.500	192.500	192.500	TESTING	91.00	91.00
08095907	0	10	0	0	TESTING	205.000	205.000	205.000	TESTING	91.00	91.00
1003R101	3	10	1003R101	3	TRAINING	162.000	162.000	162.000	TRAINING	91.33	91.33
1003R102	15	10	1003R102	4	TRAINING	164.500	164.500	164.500	TRAINING	91.33	91.33
1003R102	4	10	1003R102	4	TRAINING	164.500	164.500	164.500	TRAINING	91.33	91.33
1003R104	16	10	1003R104	16	TRAINING	169.500	169.500	169.500	TRAINING	91.33	91.33
1003R104	1	10	1003R104	1	TRAINING	172.000	172.000	172.000	TRAINING	91.33	91.33
1003R104	2	10	1003R104	2	TRAINING	169.500	169.500	169.500	TRAINING	91.33	91.33
1003R104	5	10	1003R104	5	TRAINING	169.500	169.500	169.500	TRAINING	91.33	91.33
1003R104	11	10	1003R104	11	TRAINING	169.500	169.500	169.500	TRAINING	91.33	91.33
1003R105	3	10	1003R105	3	TRAINING	162.000	162.000	162.000	TRAINING	91.33	91.33
1003R107	6	10	1003R107	6	TRAINING	177.000	177.000	177.000	TRAINING	91.33	91.33
1003R107	7	10	1003R107	7	TRAINING	167.000	167.000	167.000	TRAINING	91.33	91.33
1003R107	5	10	1003R107	5	TRAINING	167.000	167.000	167.000	TRAINING	91.33	91.33
1004R201	3	10	1004R201	3	TRAINING	169.500	169.500	169.500	TRAINING	91.33	91.33
1004R202	4	10	1004R202	4	TRAINING	164.500	164.500	164.500	TRAINING	91.33	91.33
1004R203	16	10	1004R203	11	TRAINING	167.000	167.000	167.000	TRAINING	91.33	91.33
1004R203	11	10	1004R203	11	TRAINING	167.000	167.000	167.000	TRAINING	91.33	91.33
1004R204	1	10	1004R204	1	TRAINING	169.500	169.500	169.500	TRAINING	91.33	91.33
1004R204	5	10	1004R204	5	TRAINING	169.500	169.500	169.500	TRAINING	91.33	91.33
1004R204	3	10	1004R204	3	TRAINING	169.500	169.500	169.500	TRAINING	91.33	91.33
1004R204	5	10	1004R204	5	TRAINING	169.500	169.500	169.500	TRAINING	91.33	91.33

WES_NAME	ID	V_MEAN (BRIGHT- NESS VALUE)	V_STD (BRIGHT- NESS VALUE)	V_MAX (BRIGHT- NESS VALUE)	V_MIN (BRIGHT- NESS VALUE)	WORK_GTP	VCOM_GTP	V_TIR2 (DIMEN- SION- LESS UNIT)	V_POT (# OF PIXELS)	PURPOSE	IMG_AZIM (DEGREES)	IMG_ELEV (DEGREES)
1004R207	6	-	-	-	-	-	-	-	-	TRAINING	177.000	91.35
1004R207	7	-	-	-	-	-	-	-	-	TRAINING	177.000	91.35
1005R301	3	-	-	-	-	-	-	-	-	TRAINING	162.000	90.75
1005R302	4	-	-	-	-	-	-	-	-	TRAINING	164.500	90.75
1005R304	2	-	-	-	-	-	-	-	-	TRAINING	169.500	90.75
1005R304	5	-	-	-	-	-	-	-	-	TRAINING	169.500	90.75
1005R306	3	-	-	-	-	-	-	-	-	TRAINING	174.500	90.75
1005R307	15	-	-	-	-	-	-	-	-	TRAINING	177.000	90.75
1005R307	16	-	-	-	-	-	-	-	-	TRAINING	177.000	90.75
1005R307	6	-	-	-	-	-	-	-	-	TRAINING	177.000	90.75
1005R307	7	-	-	-	-	-	-	-	-	TRAINING	177.000	90.75
1005R307	5	-	-	-	-	-	-	-	-	TRAINING	177.000	90.75
1005R307	11	-	-	-	-	-	-	-	-	TRAINING	162.000	91.35
1008R101	3	-	-	-	-	-	-	-	-	TRAINING	164.500	91.35
1008R102	15	-	-	-	-	-	-	-	-	TRAINING	164.500	91.35
1008R102	4	-	-	-	-	-	-	-	-	TRAINING	169.500	91.35
1008R104	1	-	-	-	-	-	-	-	-	TRAINING	169.500	91.35
1008R104	2	-	-	-	-	-	-	-	-	TRAINING	169.500	91.35
1008R104	5	-	-	-	-	-	-	-	-	TRAINING	169.500	91.35
1008R104	11	-	-	-	-	-	-	-	-	TRAINING	172.000	91.35
1008R105	16	-	-	-	-	-	-	-	-	TRAINING	172.000	91.35
1008R105	3	-	-	-	-	-	-	-	-	TRAINING	177.000	91.35
1008R107	6	-	-	-	-	-	-	-	-	TRAINING	177.000	91.35
1008R107	7	-	-	-	-	-	-	-	-	TRAINING	177.000	91.35
1008R107	5	-	-	-	-	-	-	-	-	TESTING	192.500	91.25
1104S104	0	-	-	-	-	-	-	-	-	TESTING	192.500	91.25
1104S104	1	-	-	-	-	-	-	-	-	TESTING	192.500	91.25
1104S106	16	-	-	-	-	-	-	-	-	TESTING	197.500	91.25
1104S106	11	-	-	-	-	-	-	-	-	TESTING	197.500	91.25
1104S106	14	-	-	-	-	-	-	-	-	TESTING	197.500	91.25
1104S204	0	-	-	-	-	-	-	-	-	TESTING	192.500	91.25
1104S204	1	-	-	-	-	-	-	-	-	TESTING	192.500	91.25
1104S204	14	-	-	-	-	-	-	-	-	TESTING	197.500	91.25
1104S206	16	-	-	-	-	-	-	-	-	TESTING	197.500	91.25
1104S206	11	-	-	-	-	-	-	-	-	TESTING	202.500	91.25
1104S208	15	-	-	-	-	-	-	-	-	TESTING	202.500	91.25
1104S208	3	-	-	-	-	-	-	-	-	TESTING	202.500	91.25

WES_NAME	10	V_MEAN (BRIGHT- NESS VALUE)	V_STD (BRIGHT- NESS VALUE)	V_MAX (BRIGHT- NESS VALUE)	V_MIN (BRIGHT- NESS VALUE)	VCOM_GTP (DIMEN- SION- LESS UNIT)	DARK_CON (DIMEN- SION- LESS UNIT)	V_TIR2 (DIMEN- SION- LESS UNIT)	IMG_ELEV (DEGREES)
11085804	3	2028	465	3135	1173	0.9943	321	0.9766	192.500
11085804	5	2602	418	4244	1476	0.9650	-41	0.4000	91.25
11085806	16	2459	611	4811	1283	0.9642	-3	0.4886	91.25
11085806	11	2048	558	4595	991	0.9995	369	0.9802	197.500
11085806	14	2379	387	3412	1196	0.9906	34	0.5886	91.25
11085808	15	2563	512	6203	1613	0.9827	-105	0.2529	202.500
11085808	3	2299	410	3742	1407	0.9890	57	0.7274	91.25
11095C04	5	2267	531	3145	1255	0.9960	263	0.9752	192.500
11095C04	11	2654	478	3674	1555	0.9813	-4	0.6827	91.25
11095C06	16	2218	560	3357	1194	0.9976	235	0.9218	197.500
11095C06	14	2560	330	3487	1794	0.9339	-190	0.1118	91.25
11095C08	15	2422	499	3687	1458	0.9951	12	0.5560	0.0020
11095C08	16	2607	352	3324	1623	0.9828	74	0.7751	351
11095C08	3	2264	465	3248	1350	0.9981	208	0.9337	325
11095C05	5	2716	349	3892	1803	0.9661	-36	0.3578	325
11095C07	14	2624	584	3971	1571	0.9874	227	0.9315	231
11105006	5	2369	278	2976	1559	0.9800	261	0.9445	34730
11105007	15	2482	345	2885	1682	0.9878	244	0.9438	40190
11105008	14	2406	336	2955	1631	0.9954	331	0.9850	44990
11105A04	5	2466	494	3203	1472	0.9948	292	0.9814	15690
11105A04	11	2234	507	3279	1292	0.9979	339	0.9910	20430
12025A04	5	-	-	-	-	-	-	-	192.500
12025A04	11	-	-	-	-	-	-	-	91.25
12025A08	15	-	-	-	-	-	-	-	202.500
12025A08	14	-	-	-	-	-	-	-	91.25
12035C04	3	-	-	-	-	-	-	-	192.500
12035C04	5	-	-	-	-	-	-	-	91.25
12035C05	16	-	-	-	-	-	-	-	195.000
12035C05	11	-	-	-	-	-	-	-	195.000
12035C05	14	-	-	-	-	-	-	-	195.000
12045P04	15	-	-	-	-	-	-	-	202.500
12045P04	3	-	-	-	-	-	-	-	192.500
12045P04	1	-	-	-	-	-	-	-	197.500
12045P08	0	-	-	-	-	-	-	-	197.500
12065D06	0	264	30	34.9	217	0.5792	-19	0.2058	171

WES NAME	ID	V_MEAN (BRIGHTNESS)	V_STD (BRIGHTNESS)	V_MAX (BRIGHTNESS)	V_MIN (BRIGHTNESS)	V_DIMEN- SION- LESS NESS	DARK_COM- (BRIGHT- NESS)	V_POT (# OF PIXELS)	PURPOSE	VCOM_GTP	V_TIR2	IMG_ELEV (DEGREES)	
										SIOM- LESS NESS	SIOM- UNIT)	SIOM- UNIT)	
BL0206S007	16	427	114	813	261	0.7329	-65	0.0572	171	TESTING	200,000	91.00	
BL0206S008	10	477	71	694	343	0.6970	0	0.5007	171	TESTING	202,500	91.00	
BL0203	3	-	-	-	-	-	-	-	-	BASELINE	162,000	91.33	
BL0204	4	-	-	-	-	-	-	-	-	BASELINE	164,500	91.33	
BL0206	1	-	-	-	-	-	-	-	-	BASELINE	169,500	91.33	
BL0206	2	-	-	-	-	-	-	-	-	BASELINE	169,500	91.33	
BL0206	5	-	-	-	-	-	-	-	-	BASELINE	169,500	91.33	
BL0403	3	-	-	-	-	-	-	-	-	BASELINE	162,000	91.33	
BL0404	4	-	-	-	-	-	-	-	-	BASELINE	164,500	91.33	
BL0406	1	-	-	-	-	-	-	-	-	BASELINE	169,500	91.33	
BL0406	2	-	-	-	-	-	-	-	-	BASELINE	169,500	91.33	
BL0406	5	-	-	-	-	-	-	-	-	BASELINE	169,500	91.33	
BL0603	3	-	-	-	-	-	-	-	-	BASELINE	162,000	91.33	
BL0604	4	-	-	-	-	-	-	-	-	BASELINE	164,500	91.33	
BL0606	1	-	-	-	-	-	-	-	-	BASELINE	169,500	91.33	
BL0606	2	-	-	-	-	-	-	-	-	BASELINE	169,500	91.33	
BL0606	5	-	-	-	-	-	-	-	-	BASELINE	169,500	91.33	
BL0803	3	174	388	2480	998	0.9972	316	0.9822	2,7850	741	BASELINE	162,000	91.33
BL0804	4	2215	571	3129	1216	0.9935	292	0.9906	1,2400	703	BASELINE	164,500	91.33
BL0806	1	1619	530	2934	868	0.9989	513	1.0000	1,6120	1485	BASELINE	169,500	91.33
BL0806	2	1558	284	2265	767	1.0000	174	0.9222	1,0450	861	BASELINE	169,500	91.33
BL0806	5	1825	379	2755	1220	0.9399	213	0.9559	1,4400	465	BASELINE	169,500	91.33
BL1003	3	2155	513	2946	1195	0.9994	368	0.9897	2,7670	741	BASELINE	162,000	91.33
BL1004	4	2688	696	3746	1481	0.9946	317	0.9947	1,2510	703	BASELINE	164,500	91.33
BL1006	1	2422	740	4389	1357	0.9869	659	1.0000	1,8020	1485	BASELINE	169,500	91.33
BL1006	2	2398	466	3341	1118	1.0000	260	0.9614	1,4480	861	BASELINE	169,500	91.33
BL1006	5	2425	578	3460	1427	0.9942	474	0.9977	5,6780	465	BASELINE	169,500	91.33
BL1203	3	2498	619	3501	1344	0.9992	405	0.9953	2,3230	741	BASELINE	162,000	91.33
BL1204	4	3131	657	4539	1706	0.9918	323	0.9916	0,9997	703	BASELINE	164,500	91.33
BL1206	1	2682	782	4912	1562	0.9961	751	1.0000	2,0340	1485	BASELINE	169,500	91.33
BL1206	2	2799	533	3973	1309	0.9999	287	0.9589	1,0210	861	BASELINE	169,500	91.33
BL1206	5	3857	653	3857	1700	0.9903	599	0.9997	6,4450	465	BASELINE	162,000	91.33
BL1403	3	-	-	-	-	-	-	-	-	BASELINE	164,500	91.33	
BL1404	4	-	-	-	-	-	-	-	-	BASELINE	169,500	91.33	
BL1406	1	-	-	-	-	-	-	-	-	BASELINE	169,500	91.33	
BL1406	2	-	-	-	-	-	-	-	-	BASELINE	169,500	91.33	
BL1406	5	-	-	-	-	-	-	-	-	BASELINE	169,500	91.33	

YES_NAME	ID	V_MEAN (BRIGHTNESS)	V_STD (BRIGHTNESS)	V_MAX (BRIGHTNESS)	V_MIN (BRIGHTNESS)	WORK_GTP	DARK_GTP	V_TIR2 (DIMEN-SION-LESS)	V_TIR2 (DIMEN-SION-LESS)	VCON_GTP (DIMEN-SION-LESS)	DARK_CON (BRIGHTNESS)	V_POT (# OF PIXELS)	PURPOSE	IMG_AZTH (DEGREES)	IMG_ELEV (DEGREES)
BL1603	3	1892	512	2790	864	1.0000	431	0.9981	2.9320	741	BASELINE	162.000	91.33		
BL1604	4	2373	713	3592	1129	0.9988	238	0.9893	3.7360	703	BASELINE	164.500	91.33		
BL1605	1	2036	632	4285	1055	0.9976	619	0.9993	2.0670	1485	BASELINE	169.500	91.33		
BL1606	2	1979	423	2782	841	1.0000	226	0.9373	0.8190	861	BASELINE	169.500	91.33		
BL1606	5	1957	445	2949	1103	0.9959	474	0.9950	1.9990	465	BASELINE	169.500	91.33		
BL1803	3	1027	286	1638	455	1.0000	185	0.9984	1.1310	741	BASELINE	162.000	91.33		
BL1804	4	1227	346	1810	605	0.9809	84	0.8667	0.1790	703	BASELINE	164.500	91.33		
BL1804	1	1035	283	2322	532	0.9792	245	0.9906	1.1710	1485	BASELINE	169.500	91.33		
BL1806	2	914	176	1467	423	0.9999	108	0.8886	0.4650	861	BASELINE	169.500	91.33		
BL1806	5	950	210	1480	557	0.9732	135	0.9319	0.3400	465	BASELINE	169.500	91.33		
BL2003	3	-	-	-	-	-	-	-	-	-	BASELINE	162.000	91.33		
BL2004	4	-	-	-	-	-	-	-	-	-	BASELINE	164.500	91.33		
BL2006	1	-	-	-	-	-	-	-	-	-	BASELINE	169.500	91.33		
BL2006	2	-	-	-	-	-	-	-	-	-	BASELINE	169.500	91.33		
BL2006	5	-	-	-	-	-	-	-	-	-	BASELINE	169.500	91.33		
BL2203	3	-	-	-	-	-	-	-	-	-	BASELINE	162.000	91.33		
BL2204	4	-	-	-	-	-	-	-	-	-	BASELINE	164.500	91.33		
BL2206	1	-	-	-	-	-	-	-	-	-	BASELINE	169.500	91.33		
BL2206	2	-	-	-	-	-	-	-	-	-	BASELINE	169.500	91.33		
BL2206	5	-	-	-	-	-	-	-	-	-	BASELINE	169.500	91.33		
BL2403	3	-	-	-	-	-	-	-	-	-	BASELINE	162.000	91.33		
BL2404	4	-	-	-	-	-	-	-	-	-	BASELINE	164.500	91.33		
BL2406	1	-	-	-	-	-	-	-	-	-	BASELINE	169.500	91.33		
BL2406	2	-	-	-	-	-	-	-	-	-	BASELINE	169.500	91.33		
BL2406	5	-	-	-	-	-	-	-	-	-	BASELINE	169.500	91.33		