General Disclaimer

One or more of the Following Statements may affect this Document

- This document has been reproduced from the best copy furnished by the organizational source. It is being released in the interest of making available as much information as possible.

- This document may contain data, which exceeds the sheet parameters. It was furnished in this condition by the organizational source and is the best copy available.

- This document may contain tone-on-tone or color graphs, charts and/or pictures, which have been reproduced in black and white.

- This document is paginated as submitted by the original source.

- Portions of this document are not fully legible due to the historical nature of some of the material. However, it is the best reproduction available from the original submission.

Produced by the NASA Center for Aerospace Information (CASI)
RC A10/AF A01 CSCL 13B G3/45 09506

FINAL TECHNICAL REPORT FOR NASA GRANT NO. NSG-6018

INVESTIGATION FOR IMPROVED PRECISION IN AERIAL APPLICATION EQUIPMENT

1 OCTOBER 1977 TO 30 SEPTEMBER 1981

LAWRENCE O. ROTH
PRINCIPAL INVESTIGATOR
AGRICULTURAL ENGINEERING DEPARTMENT
OKLAHOMA STATE UNIVERSITY
STILLWATER, OK 74078

PHONE: 405-624-5432
PROJECT ACCOMPLISHMENT

One of the major accomplishments of the project has been the development of equipment and operating techniques to facilitate rapid field measurement and evaluation of spray distribution patterns from agricultural aircraft and the introduction and acceptance of this new equipment and technology by the agricultural aviation industry. Indeed, the results of this project were directly responsible for the formulation and initiation of Operation SAFE (Self-regulating Application and Flight Efficiency), an industry-wide continuing education national program sponsored by the National Agricultural Aviation Association (NAAA) to enhance the safety and efficiency of the application of agricultural chemicals by aircraft. One important component of Operation SAFE involving spray distribution pattern checking of all aircraft will be accomplished following the techniques and procedures developed on the project and will use commercial equipment, the design of which was based on the prototype set of equipment developed on this project.

The project has also resulted in equipment and techniques that are currently being used in a research program to develop basic performance data on aircraft spray dispersal systems that will be used to not only improve the performance of systems now in use, but also to suggest possible design improvements for new systems. The information gathered over the past three years on current system
configuration and performance will form a reference base against which future improvements may be compared.

Priorities and time limitations precluded significant accomplishment with aircraft granule dispersing systems. However, the equipment and techniques developed on the project will provide a valuable base from which further research can be initiated in this important area.

PROJECT SUMMARY

The project developed in essentially three phases. The first phase involved the development of techniques and procedures to rapidly sample and analyze aircraft spray and granule distribution patterns along with a set of portable and mobile field equipment. During this phase, the equipment was repeatedly taken to the field to expose the techniques, procedures and equipment to field conditions and to evaluate and refine the procedures and improve equipment reliability.

As the equipment and techniques evolved into a useable and reliable configuration, phase two was initiated. The mechanism of "fly-in clinics" was used during this phase as a means of bringing a large number of currently used aircraft and equipment to a selected site for the purpose of measuring and, if needed, making corrective changes to the spray system to enhance distribution pattern uniformity. The data base appended to this report is a result of this activity. During phase two, the pattern measuring equipment was used to record the spray distribution patterns from nearly all of the different current makes
of agricultural aircraft in common use throughout the United States with the exception of the far-west and the southeastern part of the country.

The third phase of the project began to evolve while phase two was underway, and was concerned with the development of techniques and procedures to acquire the more basic information that was needed to define and understand the fundamental nature of the entire system, i.e., the aircraft and its flow field. Sampling and analysis techniques and procedures were developed to enable efficient nozzle-by-nozzle studies and were used on a limited basis prior to the termination of this project. However, research is continuing in this important area.

DESCRIPTION OF EQUIPMENT AND TECHNIQUES DEVELOPED DURING THE PROJECT

A. Rapid Spray Distribution Pattern Measuring Equipment. The system that finally evolved during the course of the project consists of a field sampling unit and an analysis unit.

The field sampling unit consists of 30.5 m tee-shaped extruded aluminum track with a 38 mm wide lipped channel on the top to contain and support a 37 mm continuous paper tape. The track is assembled from twenty-five 1.2 m sections that are pinned together to form a continuous and semi-rigid sample line that can be moved about easily by three persons. The track is supported by several short bases to keep it from overturning. The sampling surface is inclined about 20 degrees from horizontal to enhance spray deposition and is approximately 10 cm from the ground surface. One end of the track has a paper tape supply.
magazine designed to hold a 214 m roll of paper tape. The other end has a manual paper tape windup magazine. At the center of the track a wind directional/anemometer unit is mounted on a .5 m staff. The remainder of the field sampling unit consists of a microprocessor-controlled photographic and aircraft velocity data system designed to measure, record and printout aircraft and test identification, aircraft ground velocity, wind direction and wind velocity at the moment the aircraft crosses the sample line as well as to trigger a Polaroid camera. The resulting photograph is used to determine aircraft altitude and lateral displacement from a reference point on the sample line. Two skyward-pointed modified microwave intrusion detectors spaced a measured distance apart sense the approach of an aircraft and supply signals to the microprocessor.

Following a series of test flights, data from the field sampling unit for each flight will consist of a 30.5 m cross swath paper tape, a Polaroid photograph showing aircraft altitude and lateral displacement from the track centerline, a printout from the microprocessor listing the test and aircraft identification, aircraft ground velocity, wind direction and wind velocity.

The electronic flight line equipment is operated from 12 VDC rechargeable batteries. Seven packing tubes and cases are required to transport the flight line equipment.

The analysis unit consists of a paper tape processor and a microcomputer to digitize, record and manipulate the data from each test flight. The tape processing unit and the microcomputer both require 115 VAC. The fluorescent tracer for the analysis equipment is rhodamine FB and is mixed with water in the approximate concentration of 0.2 g/l. Toxicants are not used in test work.
Each aircraft to be tested is first cleaned and flushed before preparing and loading the dye/water mixture. The analytical instrument in the paper tape processor is a Turner Model 111 filter fluorometer equipped with a special drum to facilitate movement of the continuous paper tape through it. A constant speed drive unit draws the paper tape through the fluorometer at 15.2 m/min from a supply reel and delivers it to a take up reel. The filter fluorometer is equipped with filters so the instrument sees only the 585 nm peak of the rhodamine dye on the paper tape. As the fluorometer scans the sprayed paper tape passing through it, a millivolt signal is generated and is fed to both a strip chart recorder and an Apple II computer system. No attempt is made to quantify the fluorometer output or to relate it to the actual quantity of spray (rhodamine) deposited on the paper tape. Rather, the analog and digitized output is considered a relative measure of the amount of deposition occurring across the swath. The strip chart generated as a 30.5 m length of paper tape is analyzed provides an immediate graphic display of the across-swath spray distribution pattern for a single pass of the aircraft.

Immediately following the processing of a 30.5 m length of sprayed paper tape, the digitized data entering the computer memory is stored on a disk. And following the analysis of the paper tapes for a test series, the results can be recalled, viewed in graphic form on the monitor and electronically manipulated and printed out using the computer system software developed for this purpose.

The entire analysis unit is designed to fit into 3 cases including a special case for the Apple II computer, disk drive units, Silentype printer and the monitor.

Equipment and procedures were also developed early in the project to collect
and analyze discrete samples taken at intervals across the sample line. For this purpose, 35 mm Eastman 5980 clear leader film was placed in a channel across the 30.5 m sample line. Following spraying and drying of the spray on the film, 19 mm by 35 mm samples were removed (punched) at regular intervals across the film and put into small plastic containers for subsequent analysis for the rhodamine dye. The analysis involved injecting a measured quantity of diluent (water/alcohol mixture) into the container, vigorous shaking to remove the spray from the film, pipetting a quantity into a sample cuvette, placing the cuvette into the fluorometer, noting and recording the reading and calculations and plotting the results. Calibration samples were taken from the aircraft hopper during a test series.

Although this technique could be used to quantify the amount of spray deposition across the pattern, the time required to process a set of samples (about 1 min/sample) precluded its usefulness in the field test program. The discrete sampling procedure was used only in limited test work to establish a correlation between the results of continuous and discrete sampling.

A paper, "Rapid Distribution Pattern Measurement for Agricultural Aircraft", prepared for and presented at the 1979 ASAE/NAAA Technical Session on Agricultural Aviation Research at Las Vegas, NV, describes these techniques as they had been developed at that point in the project.

B. Granule Distribution Pattern Measuring Equipment. This equipment consists of an assembly of 24 sampling bins each having a one square meter top area. The individual bins are designed with tapering bottoms to minimize bouncing of material from the bins and are equipped with removable sample collection tubes at each bin outlet. For transport and maneuverability, four 6-bin assemblies
were developed. The 6 bins are mounted in a structural frame equipped with pneumatic-tired caster wheels. Each assembly features a quick coupling arrangement to provide a continuous 24 m sampling width. The caster wheels expedite sample line orientation with respect to the wind and facilitate handling, movement and loading of the units. The bins are moved about in the field with a 6 kW garden tractor. A specially fitted fifth-wheel hitch system trailer and crew-cab pickup combination is used to transport the sampling equipment where needed. A 2500 W generator in the pickup bed supplies 115 VAC to a voltage regulator and electrical control system in the cab to enable operation of instruments. The interior of the vehicle has been modified to serve as a mobile field laboratory through the removal of the rear seats and the installation of a laboratory bench top. The front seats are swivel mounted to permit work at the laboratory bench (facing rearward) and operation of the vehicle (facing forward).

The samples of granular material collected from the sampling bins are analyzed (weighed) using a Scientech electronic balance/Hewlett Packard HP-97 programmable calculator assembly with an interface unit. A stripchart recorder is used to generate a graph of the distribution pattern as the samples are weighed. The samples are manually placed on the balance pan and the weights are entered into the calculator memory when a key is pressed. As each sample is weighed, the stripchart recorder pen draws a line proportional in length to the sample weight. Between the samples, a controller circuit lifts the recorder pen, advances the chart 5 mm and then lowers the pen for the next sample entry. Following entry of the last sample, the calculator generates pattern statistics to go along with the stripchart recorder graph. The data is stored on a HP-97 magnetic card.
Extensive use of the pattern measuring equipment was made at a number of different sites around the country during scheduled fly-ins. The equipment was used at several different sites in Oklahoma, Kansas and Illinois as well as in the states of Arizona, Iowa, and Maryland (which drew aircraft from a 5-state area). The spray distribution patterns of nearly 200 different aircraft were measured which represented nearly every type of agricultural aircraft in commercial use in the United States.

During the first year of field work it was believed necessary to measure both granule patterns and spray patterns for whatever aircraft equipment would appear at the fly-ins. This required transporting the granular bin assembly and all of the equipment associated with spray pattern measurement to each site. After the first few fly-ins, however, it became apparent that the major interest in the industry was with spray pattern analysis as, typically, only one (or no) aircraft would arrive equipped with a granule spreader. Thus, it was decided to separate the granule work and the spray work and develop a separate light-weight and highly portable spray pattern measurement system. The relative interest and press of activity with the spray equipment, then, precluded further significant activity with the granule distribution pattern measuring equipment during the remainder of the project.

A. Spray Distribution Pattern Data. The general operating procedure at the fly-ins to collect spray pattern data involved establishing 1) a loading area where the aircraft would be flushed (if necessary), loaded with the dye/water mixture and spraying system documented, 2) a test flight area to
position and set up the flightline sampling equipment and 3) an analysis area
where the analytical equipment (fluorometer and computer) could be set up near a
115 VAC source.

At the loading area, the aircraft spray system would be documented,
recording nozzle type, angle and pressure, boom type and location and individual
nozzle positions along the boom. The aircraft hopper would be normally loaded
with about 100, 200, or 300 l of water into which the rhodamine dye would be
poured. Pre-measured 100 ml bottles of dye solution enabled adding one
container or dye for each 100 l of water in the hopper to produce the desired
dye concentration of about 0.2 g/l. An assigned person at the loading area
would brief the pilot as to flight procedures.

The pattern sampling procedure developed was to orient the sample line for
each flight so that the aircraft would fly directly into the wind, the sample
line and flight line equipment being relatively easy to re-orient quickly when a
wind shift would occur. Each test series for a given aircraft consisted of
three consecutive passes or replications over the sample line at the altitude
and air speed normally used by the pilot. The test series were completed in 10
to 15 min, depending mainly on the time required for the spray on the paper tape
to dry before it could be rolled up on the take-up reel and a new length of tape
to be drawn across the sample line. On the last replication of each test
series, small (25mm by 75 mm) water sensitive cards were placed at 1 m intervals
across the sample line to provide a visual assessment of the spray drops being
deposited in the swath. These cards were assembled side by side and were
helpful in identifying and verifying system leaks and other pattern
characteristics. Following a test flight series, the flightline data was
gathered and taken to the analysis area and the flightline made ready for the next series.

At the analysis area, the sprayed tapes from the sample line were processed through the fluorometer, each 30.5 m tape requiring about 2 min. The other data collected at the flight line (aircraft position and velocity and wind direction and velocity) for each replication was entered into the computer and stored in a single textfile on a disk along with the distribution pattern data. A flightline and analysis procedure was established to provide a standard graphic output format such that the lefthand side of the graphic display would correspond to the lefthand side of the aircraft as viewed by the pilot in the cockpit looking forward.

The appendix of this report contains a compilation of the aircraft system and spray distribution pattern data collected during the project.

B. Single Nozzle Distribution Pattern Data. The single nozzle distribution pattern studies were designed to show where the spray goes from each nozzle position on a spray boom and to characterize the shape of the deposition pattern from each nozzle location. A testing protocol was established (following some preliminary tests) where the maximum number of nozzles could be operated at the same time without any overlapping of the individual deposition patterns. The tests were conducted flying directly into the wind and under low-wind (under 8 km/hr) conditions. Computer software was developed to plot and analyze data. A paper, "Speed, Altitude and Nozzle Angle Effects on Single Nozzle Patterns", prepared for and presented to the 1981 ASAE/NAAA Technical Session on Agricultural Aviation Research at Las Vegas, NV, describes this technique in detail and presents the results of a test series with an Eagle aircraft.
C. Granule Distribution Pattern Data. In operation, the 24 m bin assembly is placed across the flightline with sample collection tubes at each bin outlet. The flightline microprocessor-controlled data collection system (for aircraft position and velocity and weather data) is positioned along the flightline. Following a test flight, the sample tubes are collected in a rack and, along with the other flightline data, are taken to the mobile laboratory. The individual samples are weighed and recorded using the electronic balance/programmable calculator system. The stripchart recorder graph provides an immediate visual portrayal of the distribution pattern and following the weighing of the last sample, the calculator can generate pattern statistics.

Distribution patterns from several granule dispensing systems tested are presented in the appendix.

D. Discussion of Appendix Data. The appendix of this report is a data base that describes the aircraft and spray systems and resulting spray distribution patterns for the aircraft subjected to this test procedure. In examining the data, it is quite apparent that seldom are two aircraft encountered (even of the same make and model) that are equipped with the same type and arrangement of spraying system components. The conditions under which many of the test flights were made were frequently less than desired from a controlled experiment standpoint. Excessive wind velocity or crosswind component, inconsistent aircraft altitude, attitude and velocity as the machines crossed the sample line all contributed to variation in the patterns. Thus it is literally impossible to subject these data to any analysis that will show differences that can be attributed to differences in system arrangement or adjustment. This data base is intended, however, to show the range of equipment
and equipment setups that are being used in the field and the resulting spray distribution patterns being produced by them.

**Data Sheet Format.** Each data sheet in the appendix is a compilation of the data collected for each aircraft for a test series (usually three replications). Early in phase two of the project, as field operating procedures and techniques were developing and evolving, the spray systems were not adequately documented and the weather data and aircraft position data from the flight line were not available or consistently recorded and cataloged. As a result, some of the data sheets have missing data elements and in those cases where nozzle location data could not be found or interpreted, the pattern data has been omitted.

Information on the data sheet includes a) test number, b) aircraft make or type, c) boom shape and location with respect to the wing, d) spray nozzle type, size and angle, and e) a line drawing (to scale) showing the position of the "on" nozzles along the spray boom. A test number followed by a hyphen and a number indicates that more than one test series was conducted with the aircraft. Each subsequent test series is unique and generally was made following changes in "on" nozzle positions in attempts to correct some observed pattern deficiency. A key to the aircraft make is presented on the first page of the appendix. The spray nozzle angle convention used has the nozzle pointed straight back for an angle of 180 deg and straight down or sideways for an angle of 90 deg. The boom drawings and the pattern graphs indicate left and right as the pilot would view them from the cockpit.

For each test flight or pass, the flight line data is shown to assist in pattern interpretation. These data include aircraft altitude and lateral
displacement left or right of the sample line center (taken from the photograph), aircraft ground velocity, and wind velocity and direction. The convention used for wind direction is that a wind direction of 180 deg represents flying directly into the wind. Wind directions greater than 180 deg create crosswind components that move from right to left and consequently would tend to move the spray and the resulting deposition pattern to the left. Wind directions less than 180 deg would produce the opposite effect and would tend to move the spray and deposition pattern to the right.

The scale at the top of each pattern graph provides a horizontal distance reference. This scale is different than that shown with the boom drawing. Since only a relative measure of spray deposition is measured, no scale is provided on the vertical axis of the pattern graphs.

**Aircraft Types and Makes.** Nearly every make of United States production aircraft was tested during the course of the project. Only a very few helicopters were encountered, perhaps in proportion to the relative numbers of fixed and rotary wing agricultural aircraft operating in the United States. Turbine configurations of the Thrush, Air Tractor, Weatherly and Aycat were encountered at least one time. No attempt was made to distinguish between the different models within a particular make of aircraft on the data sheets.

**Spray System Components and Arrangement.** Only rather sketchy information on the booms was recorded. However, most of the booms were mounted on a few inches to the rear and below the trailing edge of the wing. Some were mounted parallel to the trailing edge of the wing while others were mounted on brackets that provided a horizontal straight boom regardless of wing dihedral. For each system, the length of the spray boom is shown along with the measured wingspan.
The boom length shown is the distance between the outermost "on" nozzles and thus may not truly reflect the overall length of the boom. The spray nozzle assemblies were observed to be attached to the top, rear or bottom of the boom whether round or airfoiled shaped. The more common arrangement was the top boom connection, presumably to minimize boom outlet plugging and to enhance boom flushing and cleaning.

The nozzle equipment reported was, in most cases, what the pilot indicated he was currently using. No verification was made of either the types and sizes of the nozzles or their relative condition. Practically all types of atomizing equipment was encountered, the disk and core assembly being the most common. No examinations were made of the system filters or nozzle strainers.

Spray Distribution Pattern Interpretations. Some orientation and explanation is necessary before attempting to interpret and draw inferences from the spray distribution patterns.

The pattern traces are drawn as the pilot would see them (as the aircraft would be flying into the page). The left and right sides of the patterns are indicated at the top of the graph and along with a scale to establish a horizontal distance reference to the left and right of the sample line center. The three (or two) patterns shown are the result of separate flights or passes over the sample line, ordinarily about 5 min. apart. The vertical line in the center of the graph represents the center of the sample line and the pattern trace is not corrected for any lateral displacement of the aircraft from the sample line center. No vertical scale is provided for the patterns as only a relative measure of deposition was recorded from a zero line, the horizontal line at the bottom of each graph.
Because of sudden wind shifts and the failure to re-orient the sample line with respect to the wind or the occurrence of crosswind gusts at the moment of sampling, many of the passes were made with crosswind components that caused a shifting and distortion in the measured pattern. The wind velocity and direction (if recorded) will provide a basis for judging the effect of crosswind on the pattern. A wind direction of greater than 180 deg will cause a pattern shift to the left and would cause a "piling up" of the small drop component of the spray on the right end of the pattern and would be manifested by a sharply rising pattern trace at the right end of the pattern. The opposite would occur when the wind direction would be at an angle less than 180 degrees. Of course, the magnitude of the wind velocity would determine the amount of effect of the crosswind.

An examination of the patterns on most of the data sheets will show pronounced similarities among the three patterns. Occasionally, however, the cumulative effects of the several variations involved may cause one or more of the patterns to appear quite different from the others. In these cases, it is not possible to interpret the data with much confidence as it is difficult to know which of the patterns is truly representative.

The major effects on the pattern by the aircraft that can be readily observed are propwash and outboard deposition caused by entrainment in the wingtip vortices. The aircraft propellor, as viewed by the pilot, normally rotates in a clockwise direction and causes a leftward lateral displacement of air (and spray) under the body of the aircraft propwash). The effect of propwash on the pattern will appear near the center of the pattern as a "peak" to the left of the centerline with a corresponding "valley" immediately to the
right of the peak. Propwash is generally the result of a symmetrical or uniform nozzle spacing across the boom or may be due to insufficient compensation in nozzle placement to fill in the valley (by turning nozzles on) or to reduce the peak (by turning nozzles off). At best, this is currently a trial and error procedure for most aircraft.

Wingtip vortex deposition may appear as small short spikes on the outer edges of the pattern. This deposition is the result of the larger spray particles from the outermost few nozzle positions becoming entrained temporarily in the wingtip vortex and then falling out and being deposited at or near the edge of the pattern. The smaller drop component of the spray from these outer nozzles, once entrained in the vortex, will likely be reduced further in size through evaporation and may not fall to the ground within the sample area.

A study of the nozzle position configuration for the different aircraft will show that most systems make some provision to compensate for propwash through a clustering of nozzles to the right of the aircraft centerline and a removal of some nozzles to the left of the centerline. Those systems featuring uniformly spaced and symmetrical nozzle locations will, almost without exception, display a pronounced propwash characteristic in the pattern. Also, where the boom length is greater than about 75% of the wingspan, wingtip vortex induced pattern spikes will appear at the edges of the patterns.

Granule Distribution Pattern Interpretation. The granule distribution pattern data sheets in the appendix present some data for spreaders dispensing seed, fertilizer and granular herbicide pellets. The settings of the spreaders are unknown, but were what the operators were normally using in their granular applications. Though very limited and incomplete, these data do indicate that
rather large variations in the distribution pattern can occur and that system adjustments would need to be made to produce uniform patterns. Once a uniform pattern is obtained, it would then be possible to establish an effective swath width for proper overlapping of adjacent swaths to produce a uniform deposition on a field.

At this time, little is known about the effects of the aircraft flow field on particle trajectories for different kinds of granular materials or the influence of spreader discharge points on the lateral movement of the particles. Thus, adjustment of these systems is strictly a trial and error procedure.
The following papers and publication were prepared during the project:


AIRCRAFT SYSTEM AND DISTRIBUTION PATTERN DATA

Key to Abbreviations Used:

NA = Not Available
RD = Round
DEG = Degrees
FT = Feet
CL = Center line
MPH = Miles Per Hour
A/C = Aircraft
AC = Agcat
AT = Air Tractor
B = Bell
C = Callair
CS = Cessna
E = Eagle
H = Hiller
HU = Hughes
N = Navion
PB = Piper Brave
PP = Piper Pawnee
S = Stearman
T = Thrush
TT = Thrush Turbine
WX = Weatherly
TEST NO = 1  
A/C MAKE/TYPY = AT
BOOM
SHAPE = NA  
POSITION = NA
NOZZLE
TYPE = NA  
SIZE = 12-56  
ANGLE = 180 DEG

WING SPAN = 47.5 FEET
LEFT ROOM LENGTH = 42.6 FEET

PASS NO 1A
SPEED = NA MPH
ALITUDE = NA FT  
LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  
WIND DIRECTION = NA DEG

PASS NO 1B
SPEED = NA MPH
ALITUDE = 5 FT  
LATERAL DISPL = 2 FT LEFT OF CL
WIND SPEED = NA MPH  
WIND DIRECTION = NA DEG

PASS NO 1C
SPEED = NA MPH
ALITUDE = NA FT  
LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  
WIND DIRECTION = NA DEG
TEST NO = 3  
A/C MAKE/TYP = CS  
ROOM ---  
SHAPE = NA  
POSITION = NA  
NOZZLE ---  
TYPE = NA  
SIZE = 8-45  
ANGLE = NA DEG

*----WING SPAN = 44.6 FT----*

LEFT  
ROOM LENGTH = 38.1 FT  
RIGHT  
TIP 15 10 5 CL 5 10 15 TIP

PASS NO 1A  
SPEED = NA MPH  
ALTITUDE = 4 FT  
LATERAL DISPL = 0 FT RIGHT OF CL  
WIND SPEED = NA MPH  
WIND DIRECTION = NA DEG

PASS NO 1B  
SPEED = NA MPH  
ALTITUDE = NA FT  
LATERAL DISPL = NA FT RIGHT OF CL  
WIND SPEED = NA MPH  
WIND DIRECTION = NA DEG

PASS NO 1C  
SPEED = NA MPH  
ALTITUDE = 5 FT  
LATERAL DISPL = 0 FT RIGHT OF CL  
WIND SPEED = NA MPH  
WIND DIRECTION = NA DEG
TEST NO = 8-1  A/C MAKE/TYPE = CS
----- BOOM -----  
SHAPE = AIRFOIL  POSITION = 5" BEHIND ST  
----- NOZZLE -----  
TYPE = TEEJET  SIZE = 6  ANGLE = 180 DEG

WING SPAN = 42.5 FEET  
LEFT BOOM LENGTH = 31 FEET

PASS NO 1A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30  RIGHT

PASS NO 1B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30  RIGHT
TEST NO = 8-2  A/C MAKE/TYPER = CS
----- BOOM -----
SHAPE = AIRFOIL  POSITION = 5" BEHIND ST
----- NOZZLE -----
TYPE = TEEJET  SIZE = "  ANGLE = 45 DEG

*--------*WING SPAN = 42.5 FEET*--------*
LEFT  BOOM LENGTH = 31 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 2A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 2B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 9-1  A/C MAKE/TYEPE = AC

----- BOOM -----
SHAPE = ROUND  POSITION = 4" BEHIND

----- NOZZLE -----
TYPE = TURRET  SIZE = 8  ANGLE = 135 DEG

*--------- WING SPAN = 40.3 FEET ---------*
LEFT BOOM LENGTH = 34 FEET  RIGHT
TIP 15 10 5 CL 5 10 15 TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 9-2  A/C MAKE/TYPtE = AC
----- BOOM -----
SHAPE = ROUND  POSITION = 4" BEHIND
----- NOZZLE -----
TYPE = TURRET  SIZE = 8  ANGLE = 135 DEG

*-------------WING SPAN = 40.3 FEET-------------*
LEFT BOOM LENGTH = 34 FEET  RIGHT
TIP 15 10 5  CL 5 10 15  TIP

PASS NO 2A  SPEED = NA MPH
ALTITUDE = 5 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 2B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 11-1 A/C MAKE/TYPE = AC
----- BOOM ----- SHAPE = AIRFOIL POSITION = 4" BEHIND; 7" BELOW
----- NOZZLE ----- TYPE = TURRET SIZE = 2-45 ANGLE = 180 DEG

*-------- WING SPAN = 34.9 FEET *--------
LEFT BOOM LENGTH = 29.4 FEET RIGHT TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = 4.5 FT LATERAL DISPL = 1 FT LEFT OF CL WIND SPEED = NA MPH WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B  SPEED = NA MPH
ALTITUDE = 1 FT LATERAL DISPL = .5 FT RIGHT OF CL WIND SPEED = NA MPH WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 12-1  A/C MAKE/TYPE = WX

----- BOOM -----

SHAPE = AIRFOIL + WX  POSITION = 9" BEHIND; 4" BELOW

----- NOZZLE -----  TYPE = TURRET  SIZE = 6  ANGLE = 180 DEG

*-------- WING SPAN = 40.8 FEET ---------:

LEFT  BOOM LENGTH = 33.6 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 12-2  A/C MAKE/TYPEx = WX

----- BOOM -----
SHAPE = AIRFOIL + WX  POSITION = 9" BEHIND; 4" BELOW
TYPE = TURRET  SIZE = 6  ANGLE = 180 DEG

*-------------WING SPAN = 40.8 FEET-------------*
LEFT BOOM LENGTH = 33.6 FEET  RIGHT
TIP 15 10 5 CL 5 10 15 TIP

PASS NO 2A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 2B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 12-4  A/C MAKE/TYPE = WX

----- BOOM -----
SHAPE = AIRFOIL + WX  POSITION = 9" BEHIND; 4" BELOW

----- NOZZLE -----
TYPE = TURRET  SIZE = 6  ANGLE = 180 DEG

*----------WING SPAN = 40.8 FEET-------------*

PASS NO 4A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEC

PASS NO 4E  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEC
TEST NO = 12-5  A/C MAKE/TYPE = WX

----- BOOM ----- SHAPE = AIRFOIL + WX  POSITION = 9" BEHIND; 4" BELOW

----- NOZZLE ----- TYPE = TURRET  SIZE = 6  ANGLE = 180 DEG

WING SPAN = 40.8 FEET

LEFT BOOM LENGTH = 33.6 FEET

TIP  15  10  5  CL  5  10  15  TIP

PASS NO 5A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

PASS NO 5B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
TEST NO = 12-8  A/C MAKE/TYPE = WX
----- BOOM -----  SHAPE = AIRFOIL + WX  POSITION = 9" BEHIND; 4" BELOW
----- NOZZLE -----  TYPE = ACCUMIST  SIZE = NA  ANGLE = 180 DEG

*-------- WING SPAN = 41 FEET--------*
LEFT BOOM LENGTH = 29.7 FEET  RIGHT
TIP 15 10 5  CL 5 10 15 TIP

PASS NO RA  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL.
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO RR  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL.
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 12-11  A/C MAKE/TYPG = WX
----- BOOM -----
SHAPE = AIRFOIL + WX  POSITION = 9" BEHIND; 4" BELOW
----- NOZZLE -----
TYPE = ACCUMIST  SIZE = NA  ANGLE = 180 DEG

---------- WING SPAN = 40.9 FEET ----------
LEFT  BOOM LENGTH = 25.2 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 11A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 11B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 13-3   A/C MAKE/TYPEx = PP
----- BOOM -----   SHAPE = RD    POSITION = 4" BEHIND
----- NOZZLE -----   TYPE = NA   SIZE = 4-45   ANGLE = 180 DEG

*----------- WING SPAN = 36.2 FEET -----------*

PASS NO 3A   SPEED = NA MPH  ALTITUDE = NA FT   LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH   WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 3B   SPEED = NA MPH  ALTITUDE = NA FT   LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH   WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 3C   SPEED = NA MPH  ALTITUDE = NA FT   LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH   WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 14-2  A/C MAKE/TYPE = AT
----- BOOM ----- SHAPE = AIRFOIL  POSITION = 9" BEHIND; 6" BELOW
----- NOZZLE ----- TYPE = TEEJETS  SIZE = 3  ANGLE = 0 DEG

*--------* WING SPAN = 46.4 FEET *--------*
LEFT BOOM LENGTH = 41.1 FEET RIGHT
TIP 15 10 5 CL 5 10 15 TIP

PASS NO 2B  SPEED = NA MPH
ALTITUDE = NA FT LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 2C  SPEED = NA MPH
ALTITUDE = NA FT LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 2D  SPEED = NA MPH
ALTITUDE = NA FT LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 15  A/C MAKE/TYP= WX

SHAP= NA  POSITION = 11" BEHIND
NOZZLE -----
TYPE = T & WH JETS  SIZE = NA  ANGLE = 90; 180 DEG

*----------WING SPAN = 40.3 FEET-------------*

LEFT DOOM LENGTH = 32.8 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 17-1  A/C MAKE/TYPES = PP
SHAPE = RD  POSITION = 3.5" BEHIND; 1" ABOVE
TYPE = NA  SIZE = 8-45  ANGLE = 135 DEG

*---------WING SPAN = 36.2 FEET----------*
LEFT BOOM LENGTH = 30.3 FEET  RIGHT TIP
TIP 15 10 5 CL 5 10 15 TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = 9 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B  SPEED = NA MPH
ALTITUDE = 8.5 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C  SPEED = NA MPH
ALTITUDE = 9.5 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 18  A/C MAKE/TYPE = S

SHAPE = RD  POSITION = 5" BEHIND; 5" BELOW

TYPE = NA  SIZE = 10-56  ANGLE = 135 DEG

WING SPAN = 30.6 FEET

LEFT BOOM LENGTH = 26.6 FEET  RIGHT TIP
TIP  15  10  5  CL  5  10  15  TIP

PASS NO IA  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO IB  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30  20  10  0  10  20  30  RIGHT
TEST NO = 19  A/C MAKE/TYPE = AC
SHAPE = RD  POSITION = 5" BEHIND; 2" ABOVE
TYPE = NA  SIZE = 10-56  ANGLE = 135 DEG

WING SPAN = 36.9 FEET
LEFT BOOM LENGTH = 29.5 FEET RIGHT
TIP 15 10 5 CL 5 10 15 TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

PASS NO 1B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

PASS NO 1C  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
TEST NO = 20-1  A/C MAKE/TYPE = CS

----- BOOM ----- 
SHAPE = RD  POSITION = 8" BEHIND, 4" ABOVE 
----- NOZZLE ----- 
TYPE = NA  SIZE = 10  ANGLE = 135 DEG

*------------WING SPAN = 38 FEET-------------*
LEFT  BOOM LENGTH = 33.3 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 21  A/C MAKE/TYPEx = CG
----- BOOM -----  SHAPE = RD  POSITION = 16" BEHIND; 8" BELOW
----- NOZZLE -----  TYPE = FAN  SIZE = 15  ANGLE = 180 DEG

*----------WING SPAN = 43.2 FEET----------*
LEFT  BOOM LENGTH = 34.2 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1C  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 22-1  A/C MAKE/TYPE = AC

SHAPE = LDG EDG   POSITION = 6.5" BEHIND; 12" BELOW

TYPE = NA   SIZE = 0-45   ANGLE = 135 DEG

*--------*WING SPAN = 37.7 FEET---------*
LEFT BOOM LENGTH = 31.1 FEET             RIGHT TIP
TIP 15 10 5 CL 5 10 15 TIP

PASS NO 1A    SPEED = NA MPH
ALTITUDE = 3.5 FT   LATERAL DISPL = .5 FT RIGHT OF CL
WIND SPEED = NA MPH   WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B    SPEED = NA MPH
ALTITUDE = 5 FT   LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = NA MPH   WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C    SPEED = NA MPH
ALTITUDE = 5.9 FT   LATERAL DISPL = 1.3 FT RIGHT OF CL
WIND SPEED = NA MPH   WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 23-2  A/C MAKE/TYPPE = CS  
----- BOOM ------
SHAPE = RD  POSITION = 8" BEHIND; 1" ABOVE
----- NOZZLE ------
TYPE = NA  SIZE = 8  ANGLE = 180 DEG

*------------- WING SPAN = 42.4 FEET --------------*

LEFT  BOOM LENGTH = 33.2 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 2A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 2B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 2C  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 24  A/C MAKE/TYPE = CS
SHAPE = RD  POSITION = 7" BEHIND; 1" ABOVE
TYPE = NA  SIZE = 12-45  ANGLE = 180 DEG

*-------------------WING SPAN = 41.4 FEET------------------*
LEFT  BOOM LENGTH = 32.8 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1C  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 25  A/C MAKE/TYFE = CS
SHAPE = RD  POSITION = BEHIND
TYPE = TURRET  SIZE = 8  ANGLE = 120 DEG

WING SPAN = 43 FEET

PASS NO 1A
SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B
SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C
SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 25-2  A/C MAKE/TYPE = CS

BOOM

SHAPE = RC  POSITION = NA

NOZZLE

TYPE = TEEJETS  SIZE = #8  ANGLE = 120 DEG

---------- WING SPAN = 41.5 FEET ----------

LEFT  BOOM LENGTH = 32 FEET  RIGHT

TIP  15  10  5  CL  5  10  15  TIP

PASS NO 2A  SPEED = NA MPH

ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL

WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 2B  SPEED = NA MPH

ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL

WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 2C  SPEED = NA MPH

ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL

WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT 30  20  10  0  10  20  30  RIGHT
TEST NO = 27  A/C MAKE/TYPE = CS
----- BOOM -----
SHAPE = RD  POSITION = BELOW & BEHIND
----- NOZZLE -----  
TYPE = NA  SIZE = 10-45  ANGLE = 180 DEG

******WING SPAN = 42.3 FEET*******
LEFT BOOM LENGTH = 33.1 FEET    RIGHT
TIP 15 10 5 CL 5 10 15 TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = 6 FT LATERAL DISPL = .5 FT RIGHT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B  SPEED = NA MPH
ALTITUDE = 7 FT LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C  SPEED = NA MPH
ALTITUDE = 6.25 FT LATERAL DISPL = .5 FT LEFT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 28  A/C MAKE/TYPE = CS

SHAPE = RD  POSITION = BELOW & BEHIND

TYPE = TURRET  SIZE = 8  ANGLE = 180 DEG

WING SPAN = 38.4 FEET

BOOM LENGTH = 29 FEET

TIP 15 10 5 CL 5 10 15 TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 29  A/C MAKE/TYPYE = CS

SHAPE = AIRFOIL  POSITION = BELOW & BEHIND

TYPE = TURRENT  SIZE = 12  ANGLE = 90 DEG

*---------WING SPAN = 41.2 FEET---------*

LEFT  BOOM LENGTH = 32.4 FEET  RIGHT

TIP  15 10 5  CL  5  10  15  TIP

PASS NO 1A  SPEED = NA MPH

ALTITUDE = 6 FT  LATERAL DISPL = 2 FT LEFT OF CL

WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT  30 20 10 0 10 20 30 50  RIGHT

PASS NO 1B  SPEED = NA MPH

ALTITUDE = 7 FT  LATERAL DISPL = 2 FT LEFT OF CL

WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT  30 20 10 0 10 20 30 50  RIGHT
TEST NO = 30  A/C MAKE/TYPE = AT
SHAPE = AIRFOIL  POSITION = BELOW & BEHIND
BOOM ----
NOZZLE ----
TYPE = TURRET  SIZE = 8  ANGLE = 180 DEG

*---------WING SPAN = 45.2 FEET------*  
LEFT BOOM LENGTH = 35 FEET  RIGHT
TIP 15  10  5  CL  5  10  15  TIP

PASS NO 1B  SPEED = NA MPH
ALTITUDE = 8 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30  20  10  0  10  20  30 RIGHT

PASS NO 1C  SPEED = NA MPH
ALTITUDE = 9 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30  20  10  0  10  20  30 RIGHT
TEST NO = 31  A/C MAKE/TYPE = PP
SHAPE = RD  POSITION = BELOW & BEHIND
TYPE = NA  SIZE = 10-45  ANGLE = 170 DEG

&----------WING SPAN = 37 FEET----------

LEFT  BOOM LENGTH = 28.9 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = 10 FT  LATERAL DISPL = 2 FT LEFT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 1B  SPEED = NA MPH
ALTITUDE = 10.5 FT  LATERAL DISPL = 2 FT LEFT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 1C  SPEED = NA MPH
ALTITUDE = 9 FT  LATERAL DISPL = 2 FT LEFT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30  20  10  0  10  20  30  RIGHT
TEST NO = 32  A/C MAKE/TYPY = CB
---- BOOM ----
SHAPE = RD  POSITION = BEHIND
----- NOZZLE ----
TYPE = NA  SIZE = 8  ANGLE = 135 DEG

1------------WING SPAN = 42.3 FEET------------
LEFT  BOOM LENGTH = 32.3 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 1B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30  20  10  0  10  20  30  RIGHT
TEST NO = 33-1  A/C MAKE/TYPE = CS

BOOM

SHAPE = AIRFOIL  POSITION = BELOW & BEHIND

NOZZLE

TYPE = TURRENT  SIZE = 4  ANGLE = 135 DEG

*--------WING SPAN = 42.3 FEET--------*

LEFT BOOM LENGTH = 36.9 FEET

TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = NA MPH

ALTITUDE = 5 FT  LATERAL DISPL = 0 FT RIGHT OF CL

WIND SPEED = 5.5 MPH  WIND DIRECTION = 210 DEG

LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1B  SPEED = NA MPH

ALTITUDE = 4.5 FT  LATERAL DISPL = .5 FT LEFT OF CL

WIND SPEED = 8 MPH  WIND DIRECTION = 240 DEG

LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1C  SPEED = NA MPH

ALTITUDE = 7 FT  LATERAL DISPL = 0 FT RIGHT OF CL

WIND SPEED = 4.5 MPH  WIND DIRECTION = 230 DEG

LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 33-2  A/C MAKE/TYPE = CS
----- BOOM ----- SHAPE = AIRFOIL  POSITION = BELOW & BEHIND
----- NOZZLE ----- TYPE = TURRET  SIZE = 4  ANGLE = 135 DEG

WING SPAN = 42.3 FEET

LEFT BOOM LENGTH = 36.9 FEET

TIP 15  10  5  CL  5  10  15  TIP

PASS NO 2A  SPEED = NA MPH
ALTITUDE = 5 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 10 MPH  WIND DIRECTION = 210 DEG
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 2B  SPEED = NA MPH
ALTITUDE = 4.5 FT  LATERAL DISPL = .5 FT RIGHT OF CL
WIND SPEED = 10 MPH  WIND DIRECTION = 200 DEG
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 2C  SPEED = NA MPH
ALTITUDE = 5 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 8 MPH  WIND DIRECTION = 200 DEG
LEFT 30  20  10  0  10  20  30  RIGHT
TEST NO = J4-1  A/C MAKE/TYPF = PP
----- BOOM -----  
SHAPE = RD  POSITION = BEHIND
----- NOZZLE -----  
TYPE = NA  SIZE = 6  ANGLE = 135 DEG

*-------------------WING SPAN = 35 FEET-------------------*
LEFT   BOOM LENGTH = 28.6 FEET  RIGHT
TIP  15 10 5  CL  5 10 15 TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = 4 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 10 MPH  WIND DIRECTION = 180 DEG
LEFT  30 20 10  0 10 20 30 RIGHT

PASS NO 1B:  SPEED = NA MPH
ALTITUDE = 4 FT  LATERAL DISPL = .5 FT LEFT OF CL
WIND SPEED = 10 MPH  WIND DIRECTION = 180 DEG
LEFT  30 20 10  0 10 20 30 RIGHT

PASS NO 1C  SPEED = NA MPH
ALTITUDE = 4 FT  LATERAL DISPL = .5 FT LEFT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 190 DEG
LEFT  30 20 10  0 10 20 30 RIGHT
TEST NO = 34-3   A/C MAKE/TYPE = PP

SHAPE = RD   POSITION = BEHIND

TYPE = NA   SIZE = 8   ANGLE = 135 DEG

*----------WING SPAN = 35 FEET----------*

LEFT BOOM LENGTH = 28.6 FEET RIGHT

PASS NO 3A    SPEED = NA MPH
ALTITUDE = 3.5 FT   LATERAL DISPL = 3.5 FT LEFT OF CL
WIND SPEED = 10 MPH   WIND DIRECTION = 180 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 3B    SPEED = NA MPH
ALTITUDE = 3.5 FT   LATERAL DISPL = 1.5 FT RIGHT OF CL
WIND SPEED = 6 MPH   WIND DIRECTION = 180 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 3C    SPEED = NA MPH
ALTITUDE = 4 FT   LATERAL DISPL = .5 FT RIGHT OF CL
WIND SPEED = 11 MPH   WIND DIRECTION = 190 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 35-1    A/C MAKE/TYPERTYPE = CS

ROAM

SHAPE = RD    POSITION = BEHIND

NOZZLE

TYPE = NA    SIZE = 10    ANGLE = 145 DEG

*-----------WING SPAN = 31.5 FEET------------*

LEFT  BOOM LENGTH = 26.7 FEET  RIGHT

TIP  15  10  5  0  5  10  15  TIP

PASS NO 1A    SPEED = NA MPH

ALTITUDE = 5 FT LATERAL DISPL = 0 FT RIGHT OF CL

WIND SPEED = 7 MPH  WIND DIRECTION = 180 DEG

LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1B    SPEED = NA MPH

ALTITUDE = 7 FT LATERAL DISPL = 0 FT RIGHT OF CL

WIND SPEED = 4 MPH  WIND DIRECTION = 220 DEG

LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1C    SPEED = NA MPH

ALTITUDE = 5 FT LATERAL DISPL = .5 FT LEFT OF CL

WIND SPEED = 8 MPH  WIND DIRECTION = 220 DEG

LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 36-1  A/C MAKE/TYPE = CS
SHAPE = RD  POSITION = BEHIND
TYPE = TURBET  SIZE = NA  ANGLE = 145 DEG

WING SPAN = 34 FEET
LEFT BOOM LENGTH = 32.2 FEET

PASS NO 3A  SPEED = NA MPH
ALTITUDE = 5.2 FT  LATERAL DISPL = 0.3 FT RIGHT OF CL
WIND SPEED = 13 MPH  WIND DIRECTION = 190 DEG

PASS NO 29  SPEED = NA MPH
ALTITUDE = 5.7 FT  LATERAL DISPL = 0.13 FT RIGHT OF CL
WIND SPEED = 9 MPH  WIND DIRECTION = 190 DEG

PASS NO 30  SPEED = NA MPH
ALTITUDE = 5.6 FT  LATERAL DISPL = 1.6 FT RIGHT OF CL
WIND SPEED = 15 MPH  WIND DIRECTION = 170 DEG
TEST NO = 36-2  A/C MAKE/TYPE = CS

--- ROOM ---
SHAPE = RD  POSITION = BEHIND
--- NOZZLE ---
TYPE = TURRET  SIZE = NA  ANGLE = 145 DEG

*----------- WING SPAN = 34 FEET -----------*
LEFT  ROOM LENGTH = 32.2 FEET  RIGHT
  TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = 2.6 FT  LATERAL DISPL. = 0 FT RIGHT OF CL
WIND SPEED = 11 MPH  WIND DIRECTION = 200 DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1B  SPEED = NA MPH
ALTITUDE = 3.6 FT  LATERAL DISPL. = 0 FT RIGHT OF CL
WIND SPEED = 6 MPH  WIND DIRECTION = 190 DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1C  SPEED = NA MPH
ALTITUDE = 5.2 FT  LATERAL DISPL. = .3 FT RIGHT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 180 DEG
LEFT  30  20  10  0  10  20  30  RIGHT

ORIGINAL PAGE IS OF POOR QUALITY
TEST NO = 37  A/C MAKE/TYPET = PP

--- BOOM ---

SHAPE = RD  POSITION = BEHIND; BELOW

--- NOZZLE ---

TYPE = NA  SIZE = 4-45  ANGLE = 135 DEG

*--------*WING SPAN = 34 FEET*--------*

LEFT BOOM LENGTH = 28.6 FEET  RIGHT

TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = NA MPH

ALTITUDE = 3.9 FT  LATERAL DISPL = .3 FT LEFT OF CL

WIND SPEED = 4.5 MPH  WIND DIRECTION = 250 DEG

LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1B  SPEED = NA MPH

ALTITUDE = NA FT  LATERAL DISPL = NA FT LEFT OF CL

WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1C  SPEED = NA MPH

ALTITUDE = 3.9 FT  LATERAL DISPL = 0 FT RIGHT OF CL

WIND SPEED = 9 MPH  WIND DIRECTION = 220 DEG

LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 38   A/C MAKE/TYPE = CS

SHAPE = RG   POSITION = BEHIND; ABOVE

TYPE = TURRET   SIZE = NA   ANGLE = 100 DEG

WING SPAN = 33.9 FEET

LEFT    BOOM LENGTH = 32.2 FEET  RIGHT

PASS NO 1A   SPEED = NA MPH
ALTITUDE = 3.9 FT   LATERAL DISPL = 3.3 FT LEFT OF CL.
WIND SPEED = 4.5 MPH   WIND DIRECTION = 220 DEG

PASS NO 1B   SPEED = NA MPH
ALTITUDE = 3.2 FT   LATERAL DISPL = 2 FT LEFT OF CL.
WIND SPEED = 7 MPH   WIND DIRECTION = 210 DEG

PASS NO 1C   SPEED = NA MPH
ALTITUDE = 3 FT   LATERAL DISPL = 3 FT LEFT OF CL.
WIND SPEED = 9 MPH   WIND DIRECTION = 230 DEG
TEST NO = 41  A/C MAKE/TYPE = AC

BOOM -----

SHAPE = NA  POSITION = NA

NOZZLE -----

TYPE = NA  SIZE = 6-45  ANGLE = NA DEG

*------- WING SPAN = 38.1 FEET -------*

LEFT  BOOM LENGTH = 29.5 FEET  RIGHT

TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = NA MPH

ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL

WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1B  SPEED = NA MPH

ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL

WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1C  SPEED = NA MPH

ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL

WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 42  
A/C MAKE/TYPD = CS

BOOM

SHAPE = AIRFOIL  
POSITION = BEHIND; ABOVE

NOZZLE

TYPE = NA  
SIZE = 5  
ANGLE = 150 DEG

WING SPAN = 38.6 FEET

LEFT  BOOM LENGTH = 32.7 FEET
RIGHT
TIP  15  10  5  CL  5  10  15 TIP

PASS NO 1A  
SPEED = NA MPH
ALTITUDE = NA FT  
LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  
WIND DIRECTION = NA DEG

PASS NO 1B  
SPEED = NA MPH
ALTITUDE = NA FT  
LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  
WIND DIRECTION = NA DEG

PASS NO 1C  
SPEED = NA MPH
ALTITUDE = NA FT  
LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  
WIND DIRECTION = NA DEG
TEST NO = 43  A/C MAKE/TYPE = CS
----- BOOM ----- SHAPE = AIRFOIL  POSITION = BEHIND; BELOW
----- NOZZLE ----- TYPE = NA  SIZE = 61; 10-45  ANGLE = 150 DEG

*----------WING SPAN = 40.9 FEET----------*
LEFT  TIP 15 10 5  CL 5 10 15  RIGHT

PASS NO 1A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30  RIGHT

PASS NO 1B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30  RIGHT

PASS NO 1C  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30  RIGHT
TEST NO = 44-2  A/C MAKE/TYPE = AC
 ----- BOOM ----- 
SHAPE = RD  POSITION = BEHIND 
 ----- NOZZLE ----- 
TYPE = NA  SIZE = 4; 6; 10-45 ANGLE = 180 DEG

*---------- WING SPAN = 39.7 FEET----------*
LEFT  BOOM LENGTH = 37.3 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 2A  SPEED = NA MPH
ALTITUDE = 5 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 2B  SPEED = NA MPH
ALTITUDE = 5 FT  LATERAL DISPL = .5 FT RIGHT OF CL
WIND SPEED = 4.5 MPH  WIND DIRECTION = 210 DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 2C  SPEED = NA MPH
ALTITUDE = 5 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 3.5 MPH  WIND DIRECTION = 170 DEG
LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 44-1  A/C MAKE/TYP = AC
----- BOOM -----  SHAPE = RD  POSITION BEHIND
----- NOZZLE -----  TYPE = NA  SIZE = 4: 6: 10-45  ANGLE = 180 DEG

*--------- WING SPAN = 39.7 FEET ---------*

LEFT BOOM LENGTH = 37.3 FEET
TIP 15 10 5 CL 5 10 15 TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 3.5 MPH  WIND DIRECTION = 190 DEG
LEFT 50 20 10 0 10 20 30  RIGHT

PASS NO 1B  SPEED = NA MPH
ALTITUDE = 6.5 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 4.5 MPH  WIND DIRECTION = 170 DEG
LEFT 40 20 10 0 10 20 30  RIGHT

PASS NO 1C  SPEED = NA MPH
ALTITUDE = 6.5 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 4 MPH  WIND DIRECTION = 210 DEG
LEFT 30 20 10 0 10 20 30  RIGHT
TEST NO = 45  A/C MAKE/TYP e = AC

SHAPE = RD  POSITION = BEHIND

TYPE = NA  SIZE = 4-50  ANGLE = 135°

WING SPAN = 37.4 FEET

LEFT BOOM LENGTH = 30.2 FEET

LEFT NOZZLE LENGTH = NO

WIND SPEED = NA MPH

WIND DIRECTION = NA DEG

PASS NO 1A  SPEED = NA MPH

PASS NO 1B  SPEED = NA MPH

PASS NO 1C  SPEED = NA MPH

ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL

WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT 30 20 10 0 10 20 30 50 70 90 110 130 150

RIGHT
TEST NO = 46-2  A/C MAKE/TYPE = TT

BOOM

SHAPE = AIRFOIL  POSITION = BELOW & BEHIND

NOZZLE

TYPE = WHIRL JETS  SIZE = B-10; #3  ANGLE = 180 DEG

WING SPAN = 44.6 FEET

LEFT BOOM LENGTH = 40.4 FEET  RIGHT

TIP 15  10  5  CL  5  10  15  TIP

PASS NO 2A  SPEED = NA MPH

ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL

WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 2B  SPEED = NA MPH

ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL

WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 2C  SPEED = NA MPH

ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL

WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT 30  20  10  0  10  20  30  RIGHT
TEST NO = 47  A/C MAKE/TYP = B  

SHAPE = RD  POSITION = NA  

TYPE = WHIRL JETS  SIZE = 3;5  ANGLE = NA DEG  

WING SPAN = 37.2 FEET  

LEFT BOOM LENGTH = 37 FT  RIGHT BOOM LENGTH = 37 FEET  

PASS NO 1A  SPEED = NA MPH  

ALTITUDE = 6 FT  LATERAL DISPL = 0 FT RIGHT OF CL  

WIND SPEED = .5 MPH  WIND DIRECTION = NA DEG  

LEFT 30  20  10  0  10  20  30 RIGHT  

PASS NO 1B  SPEED = NA MPH  

ALTITUDE = 5 FT  LATERAL DISPL = 0 FT RIGHT OF CL  

WIND SPEED = .5 MPH  WIND DIRECTION = NA DEG  

LEFT 30  20  10  0  10  20  30 RIGHT  

PASS NO 1C  SPEED = NA MPH  

ALTITUDE = 4 FT  LATERAL DISPL = 1 FT LEFT OF CL  

WIND SPEED = .5 MPH  WIND DIRECTION = 140 DEG  

LEFT 30  20  10  0  10  20  30 RIGHT
TEST NO = 49-1  A/C MAKE/TYPE = AC

SHAPE = RD  POSITION = 8" BEHIND

TYPE = NA  SIZE = 8-45  ANGLE = 135 DEG

--- BOOM ---

WING SPAN = 37.4 FEET

LEFT BOOM LENGTH = 31.7 FEET  RIGHT

TIP 15 10 5 CL 5 10 15 TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = 5 FT  LATERAL DISPL = 4 FT LEFT OF CL
WIND SPEED = 2 MPH  WIND DIRECTION = 170 DEG
LEFT 30 20 10 0 10 20 30 40

PASS NO 1B  SPEED = NA MPH
ALTITUDE = 3 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 1.5 MPH  WIND DIRECTION = 160 DEG
LEFT 30 20 10 0 10 20 30 40

PASS NO 1C  SPEED = NA MPH
ALTITUDE = 4 FT  LATERAL DISPL = 2 FT LEFT OF CL
WIND SPEED = 1.5 MPH  WIND DIRECTION = 160 DEG
LEFT 30 20 10 0 10 20 30 40
ORIGINAL PAGE IS OF POOR QUALITY

TEST NO = 49-2    A/C MAKE/TYPE = AC

BOOM

SHAPE = RD    POSITION = 8" BEHIND

NOZZLE

TYPE = NA    SIZE = 8-45    ANGLE = 135 DEG

WING SPAN = 37.4 FEET

LEFT TIP 15 10 5 CL 5 10 15 TIP

PASS NO 2A    SPEED = NA MPH

ALTITUDE = 4 FT    LATERAL DISPL = 1 FT LEFT OF CL

WIND SPEED = 2 MPH    WIND DIRECTION = 140 DEG

LEFT 50 20 10 0 10 20 30 RIGHT

PASS NO 2B    SPEED = NA MPH

ALTITUDE = 4 FT    LATERAL DISPL = 2 FT LEFT OF CL

WIND SPEED = 2 MPH    WIND DIRECTION = 90 DEG

LEFT 50 20 10 0 10 20 30 RIGHT

PASS NO 2C    SPEED = NA MPH

ALTITUDE = 4 FT    LATERAL DISPL = 1 FT LEFT OF CL

WIND SPEED = 3 MPH    WIND DIRECTION = 180 DEG

LEFT 50 20 10 0 10 20 30 RIGHT
TEST NO = 50-1	A/C MAKE/TYP= DP

----- BOOM -----

SHAPE = RD
POSITION = NA

----- NOZZLE ----- TYPE = NA SIZE = 7-45 ANGLE = 135 DEG

WING SPAN = 36.4 FEET
LEFT BOOM LENGTH = 29.3 FEET
RIGHT
TIP 15 10 5 5 10 15 TIP

PASS NO 16
SPEED = NA MPH
ALTITUDE = 10 FT
LATERAL DISPL. = 1 FT LEFT OF CL
WIND SPEED = 3 MPH
WIND DIRECTION = 210 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 17
SPEED = NA MPH
ALTITUDE = 7 FT
LATERAL DISPL. = 1 FT LEFT OF CL
WIND SPEED = 2 MPH
WIND DIRECTION = 120 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 18
SPEED = NA MPH
ALTITUDE = 7 FT
LATERAL DISPL. = 0 FT RIGHT OF CL
WIND SPEED = 3 MPH
WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 50-2  
A/C MAKE/TYP = PP  
----- BOOM -----  
SHAPE = RD  
POSITION = NA  
----- NOZZLE -----  
TYPE = NA  
SIZE = 7-45  
ANGLE = 135 DEG  

*---------- WING SPAN = 36.4 FEET ---------------*
LEFT  
BOOM LENGTH = 29.3 FEET  
RIGHT  
TIP 15  10  5  CL  5  10  15  TIP

--- DIAGRAM ---

PASS NO 2A  
SPEED = NA MPH  
ALTIMETER = 9 FT  
LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 2 MPH  
WIND DIRECTION = 230 DEG
LEFT 30  20  10  0  10  20  30  RIGHT

--- DIAGRAM ---

PASS NO 2A  
SPEED = NA MPH  
ALTIMETER = 7 FT  
LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 3 MPH  
WIND DIRECTION = NA DEG
LEFT 30  20  10  0  10  20  30  RIGHT

--- DIAGRAM ---
TEST NO = 51 A/C MAKE, TYPE = AT
----- BOOM ----- SHAPE = RD POSITION = 5" BEHIND
----- NOZZLE ----- TYPE = NA SIZE = 8-45 ANGLE = NA DEG

*--------------- WING SPAN = 45.1 FEET ---------------*
LEFT BOOM LENGTH = 40.2 FEET RIGHT
TIP 15 10 5 CL 5 10 15 TIP

PASS NO 11
SPEED = NA MPH
ALTITUDE = 7 FT LATERAL DISPL. = 1 FT LEFT OF CL
WIND SPEED = 1.5 MPH WIND DIRECTION = 90 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 12
ALTITUDE = 8 FT LATERAL DISPL. = 1 FT LEFT OF CL
WIND SPEED = 7.5 MPH WIND DIRECTION = 180 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
Test No = 52  A/C MAKE/TYPE = N

SHAPE = RD  POSITION = 9.5" BEHIND

NOZZLE

TYPE = FLOOD  SIZE = TK-5  ANGLE = 135 DEG

*---------WING SPAN = 38.4 FEET---------*

LEFT  BOOM LENGTH = 30 FEET  RIGHT  TIP

15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = NA MPH

ALTITUDE = 8 FT  LATERAL DISPL = 3 FT RIGHT OF CL

WIND SPEED = 5 MPH  WIND DIRECTION = 180 DEG

LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 1B  SPEED = NA MPH

ALTITUDE = 8 FT  LATERAL DISPL = 5 FT RIGHT OF CL

WIND SPEED = 5 MPH  WIND DIRECTION = 210 DEG

LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 1C  SPEED = NA MPH

ALTITUDE = 7 FT  LATERAL DISPL = 2 FT RIGHT OF CL

WIND SPEED = 5.5 MPH  WIND DIRECTION = 190 DEG

LEFT 30  20  10  0  10  20  30  RIGHT
TEST NO = 53.1  A/C MAKE/TYPE = AC

SHAPE = RD  POSITION = 5" BEHIND

TYPE = NA  SIZE = 10-45  ANGLE = 150 DEG

*---------- WING SPAN = 40.4 FEET ----------*

LEFT  ROOM LENGTH = 38.1 FEET  RIGHT

TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = NA MPH
ALTIMETER = 6 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 2 MPH  WIND DIRECTION = 190 DEG

LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1B  SPEED = NA MPH
ALTIMETER = 6 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 1.5 MPH  WIND DIRECTION = 190 DEG

LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1C  SPEED = NA MPH
ALTIMETER = 4.5 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 1 MPH  WIND DIRECTION = 190 DEG

LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 53-2  A/C MAKE/TYP = AC

BOOM

SHAPE = RD  POSITION = 5" BEHIND

NOZZLE

TYPE = NA  SIZE = 8-45  ANGLE = 150 DEG

WING SPAN = 40.4 FEET

LEFT

BOOM LENGTH = 38.1 FEET

TIP 15 10 5  CI 5 10 15 TIP

PASS NO 2A  SPEED = NA MPH

ALTITUDE = 4 FT  LATERAL DISPL = 1 FT RIGHT OF CI

WIND SPEED = 5 MPH  WIND DIRECTION = 140 DEG

LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 2B  SPEED = NA MPH

ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CI

WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 54  A/C MAKE/TYPE = A1

BOOM

SHAPE = AIRFOIL  POSITION = 6" BEHIND; 10.5" BELOW

NOZZLE

TYPE = WHIRL JETS  SIZE = 10  ANGLE = 180 DEG

WING SPAN = 44.9 FEET

LEFT BOOM LENGTH = 40.1 FEET  RIGHT

TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = NA MPH

ALTITUDE = 8 FT  LATERAL DISPL = 0 FT RIGHT OF CL

WIND SPEED = .5 MPH  WIND DIRECTION = 200 DEG

LEFT  30  20  10 0 10 20 30  RIGHT

PASS NO 1B  SPEED = NA MPH

ALTITUDE = 10 FT  LATERAL DISPL = 1 FT RIGHT OF CL

WIND SPEED = .5 MPH  WIND DIRECTION = 160 DEG

LEFT  30  20 10 0 10 20 30  RIGHT

PASS NO 1C  SPEED = NA MPH

ALTITUDE = 8 FT  LATERAL DISPL = 2 FT RIGHT OF CL

WIND SPEED = 1 MPH  WIND DIRECTION = 190 DEG

LEFT  30  20 10 0 10 20 30  RIGHT
ORIGINAL PAGE IS OF POOR QUALITY

TEST NO = 55  A/C MAKE/TYPE = H

----- BOOM ----- SHAPE = AIRFOIL  POSITION = NA

----- NOZZLE ----- TYPE = NA  SIZE = 6-46  ANGLE = NA DEG

*----------- WING SPAN = 35.6 FEET-------------*

LEFT BOOM LENGTH = 35.6 FEET RIGHT

PASS NO 1A  SPEED = NA MPH
ALTITUDE = 9 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 1.5 MPH  WIND DIRECTION = 200 DEG
LEFT 30  20  10  0  10  20  30 RIGHT

PASS NO 1C  SPEED = NA MPH
ALTITUDE = 5 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 2.5 MPH  WIND DIRECTION = 90 DEG
LEFT 30  20  10  0  10  20  30 RIGHT
TEST NO = 56  A/C MAKE/TYPE = AT

-------- BOOM --------

SHAPE = AIRFOIL  POSITION = 8" BEHIND; 10" BELOW

NOZZLE ------

TYPE = NA  SIZE = 8  ANGLE = NA DEG

-------- WING SPAN = 45.3 FEET --------

LEFT  BOOM LENGTH = 40.6 FEET  RIGHT

TIP  15  10  5  CI  5  10  15  TIP

PASS NO 1A  SPEED = NA MPH

ALTITUDE = 9 FT  LATERAL DISPL = 1 FT LEFT OF CI

WIND SPEED = 1.6 MPH  WIND DIRECTION = 170 DEG

LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1B  SPEED = NA MPH

ALTITUDE = 11 FT  LATERAL DISPL = 2 FT RIGHT OF CI

WIND SPEED = 1 MPH  WIND DIRECTION = 180 DEG

LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1C  SPEED = NA MPH

ALTITUDE = 15 FT  LATERAL DISPL = 3 FT LEFT OF CI

WIND SPEED = 1 MPH  WIND DIRECTION = 120 DEG

LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 57  A/C MAKE/TYPE = AC
BOOM
SHAPE = RD  POSITION = 5" BEHIND
NOZZLE
TYPE = NA  SIZE = 8  ANGLE = 135 DEG

WING SPAN = 33.8 FEET

LEFT BOOM LENGTH = 31.4 FEET  RIGHT TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = 12 FT  LATERAL DISPL = 6 FT RIGHT OF CL
WIND SPEED = 2 MPH  WIND DIRECTION = 140 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B  SPEED = NA MPH
ALTITUDE = 11 FT  LATERAL DISPL = 4 FT LEFT OF CL
WIND SPEED = 2 MPH  WIND DIRECTION = 160 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C  SPEED = NA MPH
ALTITUDE = 9 FT  LATERAL DISPL = 3 FT LEFT OF CL
WIND SPEED = 2 MPH  WIND DIRECTION = 170 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 58  A/C MAKE/TYOE = AC
----- BOOM -----  SHAPE = RD  POSITION = 6" BEHIND
----- NOZZLE -----  TYPE = TEEJETS  SIZE = NA  ANGLE = 135 DEG

*---------- WING SPAN = 38.4 FEET----------*
LEFT  BOOM LENGTH = 30 FEET  RIGHT
TIP  15  10  5  0  5  10  15  TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DIYSP = NA FT OF CI
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1B  SPEED = NA MPH
ALTITUDE = 6 FT  LATERAL DIYSP = 3 FT RIGHT OF CI
WIND SPEED = 1.5 MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1C  SPEED = NA MPH
ALTITUDE = 4 FT  LATERAL DIYSP = 0 FT RIGHT OF CI
WIND SPEED = 1 MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 59  A/C MAKE/TYPRE = AC
------ BOOM ------
SHAPE = RD  POSITION = 5" BEHIND
------ NOZZLE ------
TYPE = TEEJETS  SIZE = 6  ANGLE = 135 DEG

*--------WING SPAN = 41.3 FEET--------*

LEFT  BOOM LENGTH = 38.6 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

PASS NO 1B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

PASS NO 1C  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
TEST NO = 60
A/C MAKE/TYPE = AC

SHAPE = RD  POSITION = 5" BEHIND

TYPE = NA  SIZE = 6  ANGLE = NA DEG

--- WING SPAN = 34.1 FEET ---

LEFT BOOM LENGTH = 31.4 FEET

PASS NO 1B  SPEED = NA MPH
ALTITUDE = 9 FT  LATERAL DISPL = 4 FT LEFT OF CL
WIND SPEED = 1 MPH  WIND DIRECTION = 90 DEG

PASS NO 1C  SPEED = NA MPH
ALTITUDE = 12 FT  LATERAL DISPL = 3 FT LEFT OF CL
WIND SPEED = 1.5 MPH  WIND DIRECTION = 170 DEG
TEST NO = 61-1  A/C MAKE/TYPE = TT
----- BOOM ----- SHAPE = AIRFOIL  POSITION = 10" BEHIND; 4" BELOW
----- NOZZLE ----- TYPE = FLOOD  SIZE = NA  ANGLE = 180 DEG

*---------- WING SPAN = 44.4 FEET --------------*
LEFT BOOM LENGTH = 39.7 FEET  RIGHT TIP
15 10 5 0 5 10 15 TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 70 20 10 0 10 20 30 RIGHT

PASS NO 1B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 70 20 10 0 10 20 30 RIGHT

PASS NO 1C  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 61-2  A/C MAKE/TYPE = TT
----- BOOM ----- SHAPE = AIRFOIL  POSITION = 10" BEHIND; 4" BELOW
----- NOZZLE ----- TYPE = FLOOD  SIZE = NA  ANGLE = 180 DEG
WING SPAN = 44.4 FEET
LEFT  BOOM LENGTH = 39.7 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 2A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF C/L
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

PASS NO 2B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF C/L
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

PASS NO 2C  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF C/L
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
TEST NO = 64  A/C MAKE/TYPE = TT
----- BOOM -----  
SHAPE = AIRFOIL  POSITION = 3.5" BEHIND; 9" BELOW  
----- NOZZLE -----  
TYPE = NA  SIZE = 6-46  ANGLE = 90 DEG  
|-------- WING SPAN = 44.6 FEET --------|

LEFT  BOOM LENGTH = 40 FEET  RIGHT
TIP: 15 10 5 0 10 15 20 25 30 TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = 16 FT  LATERAL DISPL = 4 FT RIGHT OF CL
WIND SPEED = 3.5 MPH  WIND DIRECTION = 330 DEG

PASS NO 1B  SPEED = NA MPH
ALTITUDE = 10 FT  LATERAL DISPL = 2 FT LEFT OF CL
WIND SPEED = 2.5 MPH  WIND DIRECTION = 330 DEG

PASS NO 1C  SPEED = NA MPH
ALTITUDE = 9 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 3 MPH  WIND DIRECTION = NA DEG
TEST NO = 67-3 
A/C MAKE, TYPE = C5

BOOM -----

SHAPE = AIRFOIL
POSITION = 22" BEHIND; 32" BELOW

NOZZLE -----

TYPE = SP. SYS. ADJ.
SIZE = D-8
ANGLE = 180 DEG

WING SPAN = 40.4 FEET

LEFT BOOM LENGTH = 38.1 FEET
RIGHT TIP 15 10 5 CL 5 10 15 TIP

PASS NO 3A

SPEED = NA MPH
ALTITUDE = 8 FT
LATERAL DISPL. = .5 FT RIGHT OF CL
WIND SPEED = NA MPH
WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 3B

SPEED = NA MPH
ALTITUDE = 8.5 FT
LATERAL DISPL. = 0 FT RIGHT OF CL
WIND SPEED = NA MPH
WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 3C

SPEED = NA MPH
ALTITUDE = 8 FT
LATERAL DISPL. = 2 FT LEFT OF CL
WIND SPEED = NA MPH
WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 68-2  A/C MAKE/TYP = PB
SHAPE = AIRFOIL  POSITION = 6" BEHIND
TYPE = SMITH FAIRE  SIZE = NA  ANGLE = 180 DEG

WING SPAN = 38.7 FEET
LEFT BOOM LENGTH = 34.7 FEET

PASS NO 2A  SPEED = NA MPH
ALTITUDE = 5 FT  LATERAL DISPL = 2.5 FT RIGHT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30  20  10  0  10  20  30 RIGHT

PASS NO 2B  SPEED = NA MPH
ALTITUDE = 6.5 FT  LATERAL DISPL = 3.5 FT LEFT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30  20  10  0  10  20  30 RIGHT

PASS NO 2C  SPEED = NA MPH
ALTITUDE = 6 FT  LATERAL DISPL = .5 FT RIGHT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30  20  10  0  10  20  30 RIGHT
TEST NO = 68-3  A/C MAKE/TYE = FB

SHAPE = AIRFOIL   POSITIOM = 6" BEHIND

TYPE = SMITH FAIRE SIZE = NA  ANGLE = 180 DEG

*-------------WING SPAN = 38.7 FEET-------------*

LEFT  BOOM LENGTH = 34.7 FEET RIGHT

TIP  15  10  5  CH  5  10  15  TIP

ORIGINAL PAGE IS OF POOR QUALITY

PASS NO 3A  SPEED = NA MPH

ALTITUDE = 6.5 FT  LATERAL DISPL = 9 FT RIGHT OF CL

WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 3B  SPEED = NA MPH

ALTITUDE = 7 FT  LATERAL DISPL = .5 FT LEFT OF CL

WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 3C  SPEED = NA MPH

ALTITUDE = 6.5 FT  LATERAL DISPL = .5 FT LEFT OF CL

WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 69  A/C MAKE/TYPE = T

SHAPE = RD  POSITION = 12" BEHIND

TYPE = MICRONAIR  SIZE = 11  ANGLE = NA DEG

LEFT
BOOM LENGTH = 26.5 FEET

RIGHT
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = NA MPH

ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL

WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1B  SPEED = NA MPH

ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL

WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1C  SPEED = NA MPH

ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL

WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT  30  20  10  0  10  20  30  RIGHT

ORIGINAL PAGE IS
OF POOR QUALITY
TEST NO = 73    A/C MAKE/TYPF = TR
----- BOOM -----SHAPE = RD    POSITION = 4" BEHIND
----- NOZZLE -----TYPE = WHIRLJET SIZE = #5 TIP-4666 ANGLE = 90 DEG

*-------WING SPAN = 47.5 FEET----------*
LEFT BOOM LENGTH = 38.8 FEET

ORIGINAL PAGE IS
OF POOR QUALITY

PASS NO 1A    SPEED = NA MPH
ALTITUDE = NA FT    LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH    WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C    SPEED = NA MPH
ALTITUDE = NA FT    LATERAL DISPL = NA FT IF CL
WIND SPEED = NA MPH    WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1G    SPEED = NA MPH
ALTITUDE = NA FT    LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH    WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 74  A/C MAKE/TYPE = CS
----- BOOM -----  SHAPE = RD  POSITION = 8" BEHIND
----- NOZZLE -----  TYPE = NA  SIZE = D 10-45  ANGLE = 135 deg

#----------WING SPAN = 41.3 FEET----------#
LEFT  BOOM LENGTH = 32.3 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

ORIGINAL PAGE IS OF POOR QUALITY

PASS NO 14  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 10  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 78-1  A/C MAKE/TYPF = CS
---------- BOOM ----------
SHAPE = RD  POSITION = 9" BEHIND
---------- NOZZLE ----------
TYPE = NA  SIZE = NA  ANGLE = 135 DEG

WING SPAN = 42.1 FEET
LEFT BOOM LENGTH = 33 FEET  RIGHT TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 1B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 1C  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30  20  10  0  10  20  30  RIGHT

ORIGINAL PAGE IS OF POOR QUALITY
TEST NO = 79-1   A/C MAKE/TYPE = AT

----- BOOM -----  
SHAPE = AIRFOIL  POSITION = 7" BEHIND; 9" BELOW  
----- NOZZLE -----  
TYPE = NA   SIZE = NA  ANGLE = 180 DEG

*---------- WING SPAN = 45.6 FEET----------*
LEFT  BOOM LENGTH = 40.4 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

ORIGINAL PAGE IS OF POOR QUALITY

PASS NO 1A
SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  50  20  10  0  10  20  30  RIGHT

PASS NO 1B
SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  50  20  10  0  10  20  30  RIGHT

PASS NO 1C
SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  50  20  10  0  10  20  30  RIGHT
TEST NO = 79-2  A/C MAKE/TYPF = AT

----- BOOM ----- SHAPE = AIRFOIL  POSITION = 7" BEHIND; 9" BELOW

----- NOZZLE ----- TYPE = NA  SIZE = NA  ANGLE = 180 DEG

*-------* WING SPAN = 45.6 FEET *-------*

LEFT  BOOM LENGTH = 40.4 FEET   RIGHT
TIP  15  10  5  CL  5  10  15  TIP

ORIGINAL PAGE IS OF POOR QUALITY

PASS NO 2A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT  OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 3B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT  OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 4C  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT  OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT

C - 2
TEST NO = 80-1   A/C MAKE/TYPY = PB
----- BOOM ----- SHAPE = RD   POSITION = 6" BEHIND
----- NOZZLE ----- TYPE = SP. SYS. SIZE = D12-56 ANGLE = 135 DEG

*-------- WING SPAN = 38.5 FEET -----------*
LEFT BOOM LENGTH = 35.3 FEET  RIGHT
TIP 15 10 5 CL 5 10 15 TIP

ORIGINAL PAGE IS
OF POOR QUALITY

PASS NO 1A
SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B
SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C
SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 83-2  A/C MAKE/TYPE = PP

SHAPE = RD  POSITION = 4" BEHIND

TYPE = NA  SIZE = 8-45  ANGLE = 135 DEG

WING SPAN = 36.3 FEET

LEFT BOOM LENGTH = 29.3 FEET  RIGHT TIP

PASS NO 2A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 2B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 2C  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

LEFT 30  20  10  0  10  20  30  RIGHT
TEST NO = 84
A/C MAKE/TYPES = AT
-------- BOOM -------
SHAPE = AIRFOIL
POSITION = NA
-------- NOZZLE -------
TYPE = WHIRL JETS
SIZE = #3
ANGLE = 180 DEG

*-----------------WING SPAN = 45.2 FEET----------------*
LEFT        TIP
BOOM LENGTH = 40.3 FEET
15 10 5 50 10 15 TIP

PASS NO 1A
SPEED = NA MPH
ALTITUDE = NA FT
LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH
WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B
SPEED = NA MPH
ALTITUDE = NA FT
LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH
WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C
SPEED = NA MPH
ALTITUDE = NA FT
LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH
WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO - 65-1  A/C MAKE/TYPE = AT

SHAPE = AIRFOIL  POSITION = 6" BEHIND; 10" BELOW

TYPE = SMITH FAIR  SIZE = D 6  ANGLE = 180 DEG

WING SPAN = 47.7 FEET

LEFT BOOM LENGTH = 42.8 FEET  RIGHT

TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

PASS NO 1B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG

PASS NO 1C  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
TEST NO = 85-3 A/C MAKE/TYPF = AT

----- BOOM ----- SHAPE = AIRFOIL

POSITION = 6" BEHIND; 10" BELOW

----- NOZZLE -----

TYPE = SMITH FAIR SIZE = D 6 ANGLE = 180 DEG

*----------* WING SPAN = 47.7 FEET *----------*

LEFT BOOM LENGTH = 42.8 FEET RIGHT

TIP 15 10 5 CL 5 10 15 TIP

PASS NO 3A SPEED = NA MPH

ALTITUDE = NA FT LATERAL DISPL = NA FT OF CL

WIND SPEED = NA MPH WIND DIRECTION = NA DEG

LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 3B SPEED = NA MPH

ALTITUDE = NA FT LATERAL DISPL = NA FT OF CL

WIND SPEED = NA MPH WIND DIRECTION = NA DEG

LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 3C SPEED = NA MPH

ALTITUDE = NA FT LATERAL DISPL = NA FT OF CL

WIND SPEED = NA MPH WIND DIRECTION = NA DEG

LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 86 A/C MAKE/TYPÉ = HM
----- BOOM ----- SHAPE = RD POSITION = NA
----- NOZZLE ----- TYPE = SP. SYS. SIZE = 8-45 ANGLE = 90 DEG

*-----------WING SPAN = 30.2 FEET-----------*
LEFT BOOM LENGTH = 29.9 FEET RIGHT
TIP 15 10 5 CL 5 10 15 TIP

ORIGINAL PAGE IS OF POOR QUALITY

PASS NO 1A SPEED = NA MPH
ALTITUDE = NA FT LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B:
ALTITUDE = NA FT LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C:
ALTITUDE = NA FT LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT
PASS NO IA SPEED = 74 MPH
ALTITUDE = 7 FT LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 9 MPH WIND DIRECTION = 172 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO IC SPEED = 86 MPH
ALTITUDE = 5 FT LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 6 MPH WIND DIRECTION = 171 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 88-1  A/C MAKE/TYNE = C5
BOOM ----- SHAPE = AIRFOIL  POSITION = NA
NOZZLE ----- TYPE = NA  SIZE = 8-46 ANGLE = 135 DEG

---------- WING SPAN = 41.8 FEET ----------
LEFT BOOM LENGTH = 33.2 FEET  RIGHT
TIP 15 10 5 CL 5 10 15 TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = 10 FT  LATERAL DISPL = 1.5 FT RIGHT OF CL
WIND SPEED = 3 MPH  WIND DIRECTION = 181 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B  SPEED = 123 MPH
ALTITUDE = 9.2 FT  LATERAL DISPL = 0.8 FT RIGHT OF CL
WIND SPEED = 4 MPH  WIND DIRECTION = 116 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C  SPEED = NA MPH
ALTITUDE = 9.2 FT  LATERAL DISPL = 1.5 FT RIGHT OF CL
WIND SPEED = 3 MPH  WIND DIRECTION = 176 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 69  A/C MAKE/TYP = CS
BOOM ------
SHAPE = RD  POSITION = NA
NOZZLE ------
TYPE = NA  SIZE = 8-56  ANGLE = 135 DEG

-------- WING SPAN = 42 FEET ---------
LEFT  BOOM LENGTH = 27.6 FEET  RIGHT
TIP  15  10  5  CL  5  10  15 TIP

PASS NO 1A  SPEED = 133 MPH
ALTITUDE = 10 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 2 MPH  WIND DIRECTION = 183 DEG
LEFT  30  20  10  0  10  20  30 RIGHT

PASS NO 1B  SPEED = 118 MPH
ALTITUDE = 10 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 4 MPH  WIND DIRECTION = 178 DEG
LEFT  30  20  10  0  10  20  30 RIGHT

PASS NO 1C  SPEED = 115 MPH
ALTITUDE = 10 FT  LATERAL DISPL = .8 FT RIGHT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 184 DEG
LEFT  30  20  10  0  10  20  30 RIGHT

ORIGINAL PAGE IS OF POOR QUALITY
TEST NO = 90  A/C MAKE/TYPRE = CS
----- BOOM -----  
SHAPE = RD  ~POSITION = 9" BEHIND \ 3.5" ABOVE
----- NOZZLE -----  
TYPE = NA  SIZE = NA  ANGLE = 90 DEG

WING SPAN = 41.3 FEET

PASS NO 1A  SPEED = 86 MPH  
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 12 MPH  WIND DIRECTION = 157 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B  SPEED = 84 MPH  
ALTITUDE = 9.6 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 13 MPH  WIND DIRECTION = 179 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C  SPEED = 83 MPH  
ALTITUDE = 9 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 11 MPH  WIND DIRECTION = 178 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 91
A/C MAKE/TYPE = CS
BOOM
SHAPE = RD
POSITION = NA
NOZLE
TYPE = NA
SIZE = D4-6
ANGLE = NA DEG

WING SPAN = 33.8 FEET
LEFT BOOM LENGTH = 32.2 FEET
TIP

PASS NO 1A
SPEED = 82 MPH
ALTITUDE = 9.1 FT
LATERAL DISPL = .6 FT LEFT OF CL
WIND SPEED = 11 MPH
WIND DIRECTION = 109 DEG
LEFT 30 20 10 0 10 20 30

PASS NO 1B
SPEED = 90 MPH
ALTITUDE = 9 FT
LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 10 MPH
WIND DIRECTION = 188 DEG
LEFT 30 20 10 0 10 20 30

PASS NO 1C
SPEED = 84 MPH
ALTITUDE = 7.5 FT
LATERAL DISPL = .8 FT RIGHT OF CL
WIND SPEED = 13 MPH
WIND DIRECTION = 180 DEG
LEFT 30 20 10 0 10 20 30
TEST NO = 92-1
A/C MAKE/TYPE = AC

BOOM

SHAPE = RD
POSITON = 5" BEHIND TAIL; 6" BELOW

NOIZLE

TYPE = NA
SIZE = D12-45
ANGLE = 135 DEG

---

WING SPAN = 38.1 FEET

LEFT BOOM LENGTH = 31.2 FEET

RIGHT

TIP

15
10
5
CL

5
10
15
TIP

PASS NO 1A
SPEED = 146 MPH
ALTITUDE = 6 FT
LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 3 MPH
WIND DIRECTION = 180 DEG

LEFT 30
20
10
0
10
20
30
RIGHT

ORIGINAL PAGE IS
OF POOR QUALITY

PASS NO 1B
SPEED = 195 MPH
ALTITUDE = 7 FT
LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 4 MPH
WIND DIRECTION = 183 DEG

LEFT 30
20
10
0
10
20
30
RIGHT

PASS NO 1C
SPEED = 71 MPH
ALTITUDE = 6 FT
LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 6 MPH
WIND DIRECTION = 180 DEG

LEFT 30
20
10
0
10
20
30
RIGHT

ORIGINAL PAGE IS
OF POOR QUALITY
TEST NO = 92-2  A/C MAKE/TYPE = AC
----- BOOM -----
SHAPE = RD  POSITION = 5" BEHIND; 6" BELOW
----- NOZZLE -----
TYPE = NA  SIZE = D12-45  ANGLE = 135 DEG
*----------WING SPAN = 38.1 FEET----------*
LEFT  BOOM LENGTH = 31.2 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

ORIGINAL PAGE IS OF POOR QUALITY

PASS NO 2A  SPEED = NA MPH
ALTITUDE = 6 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 174 DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 2B  SPEED = NA MPH
ALTITUDE = 7.5 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 3 MPH  WIND DIRECTION = 170 DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 2C  SPEED = NA MPH
ALTITUDE = 6.5 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 2 MPH  WIND DIRECTION = 172 DEG
LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 93-1  A/C MAKE/TYPER = AC
----- BOOM ----- SHAPE = AIRFOIL  POSITION = 6" BEHIND; 8" BELOW
----- NOZZLE ----- TYPE = NA  SIZE = D12-45  ANGLE = 180 DEG

*----------WING SPAN = 34.4 FEET----------*
LEFT BOOM LENGTH = 28.8 FEET  RIGHT TIP

PASS NO 1A  SPEED = 131 MPH
ALTITUDE = 5.5 FT  LATERAL DISPL = 3 FT LEFT OF CL WIND SPEED = 6 MPH  WIND DIRECTION = 147 DEG
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 1B  SPEED = 155 MPH
ALTITUDE = 5 FT  LATERAL DISPL = 2 FT LEFT OF CL WIND SPEED = 8 MPH  WIND DIRECTION = 213 DEG
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 1C  SPEED = 186 MPH
ALTITUDE = 5 FT  LATERAL DISPL = 2 FT LEFT OF CL WIND SPEED = 6 MPH  WIND DIRECTION = 189 DEG
LEFT 30  20  10  0  10  20  30  RIGHT
TEST NO = 94-2   A/C MAKE/TYPE = PP

----- ROOM ----- 
SHAPE = AIRFOIL  POSITION = 5" BEHIND; 8" BELOW

----- NOZZLE ----- 
TYPE = NA SIZE = 8-45 ANGLE = 180 DEG

WING SPAN = 38.6 FEET
LEFT BOOM LENGTH = 32.1 FEET
RIGHT TIP

PASS NO 2A
SPEED = 102 MPH
ALTITUDE = 7 FT  LATERAL DISPL = 3.5 FT RIGHT OF CL
WIND SPEED = 3 MPH  WIND DIRECTION = 189 DEG

PASS NO 2B
SPEED = 107 MPH
ALTITUDE = 7.5 FT  LATERAL DISPL = 1.5 FT RIGHT OF CL
WIND SPEED = 3 MPH  WIND DIRECTION = 176 DEG
**TEST NO = 95**  
**A/C MAKE/TYPE = AC**  
**SHAPE = RD**  
**POSITIO N = 6.5" BEHIND**  
**TYPE = NA**  
**SIZE = 12-45**  
**ANGLE = NA DEG**

---

**WING SPAN = 37.8 FEET**

**LEFT BOOM LENGTH = 31.3 FEET**

---

**PASS NO IA**  
**SPEED = 114 MPH**  
**ALTITUDE = NA FT**  
**LATERAL DISPL = NA FT OF CL**  
**WIND SPEED = 10 MPH**  
**WIND DIRECTION = 165 DEG**

---

**PASS NO IB**  
**SPEED = 95 MPH**  
**ALTITUDE = 8 FT**  
**LATERAL DISPL = 3 FT LEFT OF CL**  
**WIND SPEED = 5 MPH**  
**WIND DIRECTION = 176 DEG**

---

**PASS NO IC**  
**SPEED = NA MPH**  
**ALTITUDE = NA FT**  
**LATERAL DISPL = NA FT OF CL**  
**WIND SPEED = 7 MPH**  
**WIND DIRECTION = 190 DEG**
TEST NO = 96  A/C MAKE/TYPE = CS

----- BOOM -----  
SHAPE = RD  POSITION = 8" BEHIND

----- NOZZLE -----  
TYPE = NA  SIZE = LF-10  ANGLE = NA DEG

*-----------WING SPAN = 41.9 FEET-----------*

LEFT BOOM LENGTH = 33.1 FEET
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = 97 MPH
ALTITUDE = NA FT  LATERAL DISPL. = NA FT OF CL
WIND SPEED = 12 MPH  WIND DIRECTION = 185 DEG
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 1B  SPEED = 95 MPH
ALTITUDE = 7 FT  LATERAL DISPL. = 0 FT RIGHT OF CL
WIND SPEED = 7 MPH  WIND DIRECTION = 180 DEG
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 1C  SPEED = 90 MPH
ALTITUDE = 6 FT  LATERAL DISPL. = 0 FT RIGHT OF CL
WIND SPEED = 12 MPH  WIND DIRECTION = 160 DEG
LEFT 30  20  10  0  10  20  30  RIGHT
TEST NO = 97  A/C MAKE/TYPE = CS
-------- BOOM --------
SHAPE = RD  POSITION = 8" BEHIND
-------- NOZZLE --------
TYPE = NA  SIZE = 8010  ANGLE = NA DEG

*---------- WING SPAN = 42.3 FEET ----------*
LEFT BOOM LENGTH = 33.1 FEET  RIGHT
TIP 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

PASS NO 1A  SPEED = 91 MPH
ALTITUDE = 11 FT  LATERAL DISPL = 2 FT LEFT OF CL
WIND SPEED = 7 MPH  WIND DIRECTION = 182 DEG
LEFT 30 20 10 0 10 20 30 40 50 60 70 80 90 100

PASS NO 1B  SPEED = 87 MPH
ALTITUDE = 8 FT  LATERAL DISPL = 3 FT LEFT OF CL
WIND SPEED = 8 MPH  WIND DIRECTION = 168 DEG
LEFT 30 20 10 0 10 20 30 40 50 60 70 80 90 100

PASS NO 1C  SPEED = 93 MPH
ALTITUDE = 9 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 6 MPH  WIND DIRECTION = 169 DEG
LEFT 30 20 10 0 10 20 30 40 50 60 70 80 90 100
TEST NO = 98  A/C MAKE/TYPE = B
----- BOOM -----  SHAPE = RD  POSITION = 0.5" BELOW
----- NOZZLE -----  TYPE = NA  SIZE = 6-45  ANGLE = 135 DEG

*------------- WING SPAN = 37 FEET-------------*

LEFT  BOOM LENGTH = 35.1 FEET

TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1B  SPEED = 86 MPH
ALTITUDE = 6 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 12 MPH  WIND DIRECTION = 215 DEG

LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1C  SPEED = 118 MPH
ALTITUDE = 6 FT  LATERAL DISPL = 2 FT LEFT OF CL
WIND SPEED = 9 MPH  WIND DIRECTION = 200 DEG

LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 99  A/C MAKE/TYPY = PP
----- BOOM -----
SHAPE = RD  POSITION = 5.5 BEHIND
----- NOZZLE -----
TYPE = NA  SIZE = 8-45  ANGLE = 135 DEG

*------------WING SPAN = 35.8 FEET------------*

PASS NO 1A  SPEED = 78 MPH
ALTITUDE = 10 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 6 MPH  WIND DIRECTION = 177 DEG

PASS NO 1B  SPEED = 74 MPH
ALTITUDE = 6 FT  LATERAL DISPL = 4 FT LEFT OF CL
WIND SPEED = 10 MPH  WIND DIRECTION = 181 DEG

PASS NO 1C  SPEED = 70 MPH
ALTITUDE = 7 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 11 MPH  WIND DIRECTION = 178 DEG
TEST NO = 100-2  A/C MAKE/TYPE = T

----- BOOM -----
SHAPE = AIRFOIL  POSITION = 9" BEHIND
---- NOZZLE ----
TYPE = MICRONAIR  SIZE = NA  ANGLE = 180 DEG

*--------WING SPAN = 43.5 FEET--------*

LEFT  BOOM LENGTH = 25.8 FEET  RIGHT
TIP  15  10  5  CL  5  10  15 TIP

PASS NO 2A  SPEED = NA MPH
ALTITUDE = 8 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 2 MPH  WIND DIRECTION = 162 DEG
LEFT  30  20  10  0  10  20  30 RIGHT

PASS NO 2B  SPEED = NA MPH
ALTITUDE = 7 FT  LATERAL DISPL = 4 FT RIGHT OF CL
WIND SPEED = 3 MPH  WIND DIRECTION = 180 DEG
LEFT  30  20  10  0  10  20  30 RIGHT

PASS NO 2C  SPEED = 118 MPH
ALTITUDE = 14 FT  LATERAL DISPL = 2 FT LEFT OF CL
WIND SPEED = 3 MPH  WIND DIRECTION = 150 DEG
LEFT  30  20  10  0  10  20  30 RIGHT

ORIGINAL PAGE IS
OF POOR QUALITY

M
TEST NO = 101-1    A/C MAKE/TYPF = AC
----- BOOM -----  
SHAPE = RD  POSITION = 3" BEHIND; 5" BELOW
----- NOZZLE ----- 
TYPE = NA  SIZE = 6-45  ANGLE = NA DEG

*-----------WING SPAN = 37.6 FEET-----------* 
LEFT  BOOM LENGTH = 31.4 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A     SPEED = 81 MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CI
WIND SPEED = 7 MPH  WIND DIRECTION = 164 DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1B     SPEED = 81 MPH
ALTITUDE = 11 FT  LATERAL DISPL = 1 FT RIGHT OF CI
WIND SPEED = 15 MPH  WIND DIRECTION = 180 DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1C     SPEED = 79 MPH
ALTITUDE = 5 FT  LATERAL DISPL = 3 FT LEFT OF CI
WIND SPEED = 9 MPH  WIND DIRECTION = 183 DEG
LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 101-2   A/C MAKE/TYPPE = AG

----- BOOM -----
SHAPE = RD  POSITION = 3" BEHIND; 5" BELOW
----- NOZZLE -----
TYPE = NA SIZE = 6-45 ANGLE = NA DEG

&------WING SPAN = 37.6 FEET----------
LEFT BOOM LENGTH = 31.4 FEET RIGHT
TIP 15 10 5 CL 5 10 15 TIP

PASS NO 2A   SPEED = 97 MPH
ALTITUDE = 12 FT LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 4 MPH WIND DIRECTION = 178 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 2B   SPEED = 104 MPH
ALTITUDE = 12.5 FT LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 2 MPH WIND DIRECTION = 172 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 2C   SPEED = 107 MPH
ALTITUDE = 15 FT LATERAL DISPL = 1.5 FT RIGHT OF CL
WIND SPEED = 3 MPH WIND DIRECTION = 200 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 102
A/C MAKE/TYP = TC
----- BOOM ----- 
SHAPE = RD
POSITION = 7" FWD 5.5" BLW LDG EDG
----- NOZZLE ----- 
TYPE = NA
SIZE = D6-45
ANGLE = 90 DEG

WING SPAN = 36.7 FEET

LEFT BOOM LENGTH = 35 FEET

PASS NO 1A SPEED = 142 MPH
ALTITUDE = NA FT
LATERAL DISPL = NA FT OF CL
WIND SPEED = 4 MPH
WIND DIRECTION = 184 DEG

PASS NO 1B SPEED = 86 MPH
ALTITUDE = NA FT
LATERAL DISPL = NA FT OF CL
WIND SPEED = 1 MPH
WIND DIRECTION = 193 DEG

PASS NO 1C SPEED = 198 MPH
ALTITUDE = 5 FT
LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 2 MPH
WIND DIRECTION = 171 DEG
TEST NO = 103  A/C MAKE/TYP = CS
---- BOOM ----
SHAPE = AIRFOIL   POSITION = 8" BEHIND
---- NOZZLE ----
TYPE = NA   SIZE = 8-46   ANGLE = NA DEG

---------
WING SPAN = 42.3 FEET---------

LEFT   BOOM LENGTH = 32.4 FEET
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = 136 MPH
ALTITUDE = 14 FT  LATERAL DISPL = 6 FT LEFT OF CL
WIND SPEED = 3 MPH  WIND DIRECTION = 186 DEG
LEFT  30  20  10  6  10  20  30  RIGHT

PASS NO 1B  SPEED = 112 MPH
ALTITUDE = 12.5 FT  LATERAL DISPL = 6 FT RIGHT OF CL
WIND SPEED = 6 MPH  WIND DIRECTION = 181 DEG
LEFT  30  20  10  6  10  20  30  RIGHT

PASS NO 1C  SPEED = 117 MPH
ALTITUDE = 12 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 4 MPH  WIND DIRECTION = 162 DEG
LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 104-1  A/C MAKE/TYP = PB
----- BOOM ----- SHAPE = RD  POSITION = 6" BEHIND
----- NOZZLE ----- TYPE = NA  SIZE = 8-45  ANGLE = 135 DEG

*-----------WING SPAN = 39.1 FEET----------*
LEFT BOOM LENGTH = 33.2 FEET  RIGHT TIP
15 10 5  CL  5 10 15 TIP

PASS NO 1A  SPEED = 109 MPH
ALTITUDE = 9 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 7 MPH  WIND DIRECTION = 217 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 6 MPH  WIND DIRECTION = 174 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C  SPEED = NA MPH
ALTITUDE = 9 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 7 MPH  WIND DIRECTION = 204 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 104-2    A/C MAKE/TYP = PB

--- BOOM ---

SHAPE = RD    POSITION = 6" BEHIND

--- NOZZLE ---

TYPE = NA    SIZE = 6-45    ANGLE = NA DEG

----------- WING SPAN = 39.1 FEET -----------

LEFT BOOM LENGTH = 33.2 FEET    RIGHT TIP

TIP 15 10 5 CL 5 10 15 TIP

PASS NO 2A    SPEED = 124 MPH

ALTITUDE = 8 FT    LATERAL DISPL = 0 FT RIGHT OF CL

WIND SPEED = 4 MPH    WIND DIRECTION = 193 DEG

LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 2B    SPEED = 124 MPH

ALTITUDE = 10 FT    LATERAL DISPL = 2 FT LEFT OF CL

WIND SPEED = 3 MPH    WIND DIRECTION = 207 DEG

LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 2C    SPEED = 133 MPH

ALTITUDE = 12 FT    LATERAL DISPL = 1 FT RIGHT OF CL

WIND SPEED = 3 MPH    WIND DIRECTION = 144 DEG

LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 105-2  A/C MAKE/TYME = HU

BOOM

SHAPE = RD  POSITION = NA

NOZZLE

TYPE = NA  SIZE = 6-45  ANGLE = NA DEG

---WING SPAN = 30.6 FEET---

LEFT BOOM LENGTH = 28 FEET  RIGHT

TIP  15  10  5  CL  5  10  15  TIP

PASS NO 2A  SPEED = 64 MPH

ALTITUDE = 7 FT  LATERTAL DISPL = 0 FT RIGHT OF CL

WIND SPEED = 4 MPH  WIND DIRECTION = 197 DEG

LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 2B  SPEED = 65 MPH

ALTITUDE = 6 FT  LATERAL DISPL = 2 FT LEFT OF CL

WIND SPEED = 3 MPH  WIND DIRECTION = 169 DEG

LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 2C  SPEED = 114 MPH

ALTITUDE = 7 FT  LATERAL DISPL = 0 FT RIGHT OF CL

WIND SPEED = 2 MPH  WIND DIRECTION = 166 DEG

LEFT 30  20  10  0  10  20  30  RIGHT
TEST NO = 106-1  A/C MAKE/TYPE = CS
------- BOOM -------
SHAPE = RD  POSITION = 8" BEHIND
------- NOZZLE -------
TYPE = NA  SIZE = 10-45  ANGLE = NA DEG

*----------WING SPAN = 35.3 FEET-------------
LEFT BOOM LENGTH = 33 FEET  RIGHT
TIP 15 10 5 CL 5 10 15 TIP

PASS NO 1A  SPEED = 127 MPH
ALITUDE = 11 FT  LATERAL DISPL. = 1 FT RIGHT OF CL
WIND SPEED = 8 MPH  WIND DIRECTION = 169 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B  SPEED = 138 MPH
ALITUDE = 12 FT  LATERAL DISPL. = 2 FT LEFT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 179 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C  SPEED = 123 MPH
ALITUDE = 13 FT  LATERAL DISPL. = 1 FT RIGHT OF CL
WIND SPEED = 2 MPH  WIND DIRECTION = 104 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 107-1     A/C MAKE/TYPF = PB
----- ROOM ----- 
SHAPE = RD    POSITION = 6" BEHIND
----- NOZZLE ----- 
TYPE = NA    SIZE = 12-46    ANGLE = 135 DEG

WING SPAN = 31.7 FEET

PASS NO 1A       SPEED = 138 MPH
ALTITUDE = 14 FT   LATERAL DISPL = 3 FT RIGHT OF CL
WIND SPEED = 4 MPH   WIND DIRECTION = 181 DEG
LEFT 30  20  10  0  10  20  30 RIGHT

PASS NO 1B       SPEED = 138 MPH
ALTITUDE = NA FT   LATERAL DISPL = NA FT 0-CL
WIND SPEED = 8 MPH   WIND DIRECTION = 184 DEG
LEFT 30  20  10  0  10  20  30 RIGHT

PASS NO 1C       SPEED = 138 MPH
ALTITUDE = 11 FT   LATERAL DISPL = 2 FT LEFT OF CL
WIND SPEED = 4 MPH   WIND DIRECTION = 191 DEG
LEFT 30  20  10  0  10  20  30 RIGHT
TEST NO = 108-1  A/C MAKE/TYPE = CS

BOOM

SHAPE = RD  POSITION = 7" BEHIND; 3" ABOVE

NOZZLE

TYPE = NA  SIZE = 6"  ANGLE = NA DEG

--- WING SPAN = 41 FEET ---

LEFT  ROOM LENGTH = 32.6 FEET  RIGHT

TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = 101 MPH

ALTITUDE = 8.5 FT  LATERAL DISPL = 1 FT LEFT OF CI

WIND SPEED = 4 MPH  WIND DIRECTION = 155 DEG

LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1B  SPEED = 114 MPH

ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CI

WIND SPEED = 4 MPH  WIND DIRECTION = 175 DEG

LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1C  SPEED = NA MPH

ALTITUDE = 8 FT  LATERAL DISPL = 1 FT RIGHT OF CI

WIND SPEED = 7 MPH  WIND DIRECTION = 181 DEG

LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 109  A/C MAKE/TYPE = T

SHAPE = AIRFOIL  POSITION = 12" BEHIND

NOZZLE -----

TYPE = MICRONAIR  SIZE = NA  ANGLE = NA DEG

*----------WING SPAN = 44.3 FEET----------*

LEFT  BOOM LENGTH = 26.5 FEET  RIGHT

TIP 15 10 5 CL 5 10 15 TIP

PASS NO 1A  SPEED = 74 MPH

ALTITUDE = 13 FT  LATERAL DISPL = 0 FT RIGHT OF CL

WIND SPEED = 6 MPH  WIND DIRECTION = 201 DEG

LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B  SPEED = 105 MPH

ALTITUDE = 12 FT  LATERAL DISPL = 1 FT RIGHT OF CL

WIND SPEED = 4 MPH  WIND DIRECTION = 174 DEG

LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C  SPEED = 121 MPH

ALTITUDE = 13 FT  LATERAL DISPL = 1 FT RIGHT OF CL

WIND SPEED = 6 MPH  WIND DIRECTION = 150 DEG

LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 110  A/C MAKE/TYPE = AC
SHAPE = RD  POSITION = 6" BEHIND
NOZZLE
TYPE = NA  SIZE = 8-46  ANGLE = NA DEG

WING SPAN = 37.3 FEET

LEFT BOOM LENGTH = 20.1 FEET
TIP 15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = 117 MPH
ALTITUDE = 15 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 9 MPH  WIND DIRECTION = 168 DEG

PASS NO 1B  SPEED = 118 MPH
ALTITUDE = 15 FT  LATERAL DISPL = 2 FT RIGHT OF CL
WIND SPEED = 6 MPH  WIND DIRECTION = 172 DEG

PASS NO 1C  SPEED = 87 MPH
ALTITUDE = 15 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 3 MPH  WIND DIRECTION = 169 DEG
TEST NO = 111-2  A/C MAKE/TYPE = CS

----- BOOM ----- SHAPE = AIRFOIL  POSITION = STD. CESSNA

----- NOZZLE -----  TYPE = NA  SIZE = D10-45  ANGLE = NA DEG

ORIGINAL PAGE IS OF POOR QUALITY

*---------WING SPAN = 41.7 FEET---------*
LEFT BOOM LENGTH = 33.2 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 2a  SPEED = 84 MPH
ALTITUDE = 5.5 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 13 MPH  WIND DIRECTION = 186 DEG

PASS NO 2b  SPEED = 81 MPH
ALTITUDE = 5.5 FT  LATERAL DISPL = .5 FT RIGHT OF CL
WIND SPEED = 13 MPH  WIND DIRECTION = 176 DEG

PASS NO 2c  SPEED = 84 MPH
ALTITUDE = 4 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 12 MPH  WIND DIRECTION = 167 DEG
TEST NO = 111-3  A/C MAKE/TYPE = CS
----- BOOM -----  SHAPE = AIRFOIL  POSITION = STD. CESSNA
----- NOZZLE -----  TYPE = NA  SIZE = D10-45  ANGLE = NA DEG

* ---------- WING SPAN = 41.7 FEET ---------- *
LEFT BOOM LENGTH = 33.2 FEET  RIGHT
TIP 15 10 5 CL 5 10 15 TIP

PASS NO 3A  SPEED = 79 MPH
ALTITUDE = 7 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 15 MPH  WIND DIRECTION = 180 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 3B  SPEED = 79 MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 12 MPH  WIND DIRECTION = 192 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 3C  SPEED = 77 MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 18 MPH  WIND DIRECTION = 184 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 114-1    A/C MAKE/TYPE = CS

BOOM

SHAPE = AIRFOIL    POSITION = 10" BEHIND; 11" BELOW

NOZZLE

TYPE = TEEJET    SIZE = DA-46    ANGLE = NA DEG

+WING SPAN = 41.9 FEET+WING SPAN = 41.9 FEET+WING SPAN = 41.9 FEET

LEFT BOOM LENGTH = 33.7 FEET

TIP 15 10 5  CL 5 10 15 TIP

PASS NO 1A    SPEED = 118 MPH

ALTITUDE = 13 FT    LATERAL DISPL = 1 FT RIGHT OF CL

WIND SPEED = 8 MPH    WIND DIRECTION = 176 DEG

LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B    SPEED = 113 MPH

ALTITUDE = 12 FT    LATERAL DISPL = 2 FT RIGHT OF CL

WIND SPEED = 5 MPH    WIND DIRECTION = 156 DEG

LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C    SPEED = 113 MPH

ALTITUDE = 15 FT    LATERAL DISPL = 2 FT RIGHT OF CL

WIND SPEED = 6 MPH    WIND DIRECTION = 149 DEG

LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 114-3   A/C MAK/TYPE = CS

----- BOOM ----- SHAPE = AIRFOIL  POSITION = 10" BEHIND; 11" BELOW

----- NOZZLE ----- TYPE = TEEJET  SIZE = 6-10  ANGLE = NA DEG

*----------WING SPAN = 41.9 FEET---------*

LEFT  BOOM LENGTH = 33.7 FEET  RIGHT

TIP  15  10  5  CL  5  10  15  TIP

PASS NO 5A        SPEED = 113 MPH
ALTITUDE = 12 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 4 MPH  WIND DIRECTION = 213 DEG
LEFT 30  20  10  0  10  20  30 RIGHT

PASS NO 7B        SPEED = 116 MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 4 MPH  WIND DIRECTION = 197 DEG
LEFT 30  20  10  0  10  20  30 RIGHT

PASS NO 5C        SPEED = 116 MPH
ALTITUDE = 12 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 4 MPH  WIND DIRECTION = 197 DEG
LEFT 30  20  10  0  10  20  30 RIGHT
ORIGINAL PAGE 15
OF POOR QUALITY

TEST NO = 115-1  A/C MAKE/TYPE = AC
----- BOOM -----  
SHAPE = AIRFOIL  POSITION = 4" BEHIND; 9.5" BELOW  
----- NOZZLE -----  
TYPE = SPG SYS  SIZE = 6-45  ANGLE = 180 DEG

WING SPAN = 40.7 FEET

LEFT  BOOM LENGTH = 36.1 FEET  
TIP 15  10  5  0
RIGHT

PASS NO 10  
SPEED = 107 MPH
ALTIMETER = 17 FT  LATERAL DISPL = -1 FT RIGHT OF CL
WIND SPEED = 6 MPH  WIND DIRECTION = 167 DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 11  
SPEED = 101 MPH
ALTIMETER = 11 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 165 DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 10  
SPEED = 97 MPH
ALTIMETER = 10 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 6 MPH  WIND DIRECTION = 174 DEG
LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 115-3  A/C MAKE/TYME = AC
BOOM ----- SHAPE = AIRFOIL  POSITION = 4" BEHIND, 9.5" BELOW
----- NOZZLE ----- TYPE = SPG SYS  SIZE = 6-45 ANGLE = 180 DEG
&---- WING SPAN = 40.7 FEET -----
LEFT  BOOM LENGTH = 36.1 FEET RIGHT
TIP 15 10 5 CL 5 10 15 TIP

ASS NO 3A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 3B  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 3C  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30 20 16 0 10 20 30 RIGHT
TEST NO = 116-1 A/C MAKE/TYPE = CS
SHAPES = AIRFOIL POSITION = 6.5" BEHIND; 10" BELOW
TYPE = NA SIZE = D4 ANGLE = NA DEG
WING SPAN = 38.8 FEET
LEFT BOOM LENGTH = 31.8 FEET
TIP 15 10 5 CL 5 10 15 TIP

PASS NO 1A SPEED = 106 MPH
ALTITUDE = 9 FT LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 5 MPH WIND DIRECTION = 180 DEG

PASS NO 1B SPEED = 107 MPH
ALTITUDE = 8.5 FT LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 4 MPH WIND DIRECTION = 171 DEG

PASS NO 1C SPEED = 110 MPH
ALTITUDE = 10 FT LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 1 MPH WIND DIRECTION = 172 DEG
TEST NO = 116-2  A/C MAKE/TYPE = C5

SHAPE = AIRFOIL  POSITION = 8.5" BEHIND; 10" BELOW

TYPE = NA  SIZE = 04  ANGLE = NA DEG

WING SPAN = 38.8 FEET

LEFT BOOM LENGTH = 31.8 FEET

PASS NO 2A  SPEED = 113 MPH

ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL

WIND SPEED = 5 MPH  WIND DIRECTION = 151 DEG

PASS NO 2B  SPEED = 114 MPH

ALTITUDE = 9 FT  LATERAL DISPL = 1 FT RIGHT OF CL

WIND SPEED = 1 MPH  WIND DIRECTION = 132 DEG

PASS NO 2C  SPEED = 107 MPH

ALTITUDE = 9 FT  LATERAL DISPL = 1 FT RIGHT OF CL

WIND SPEED = 5 MPH  WIND DIRECTION = 151 DEG
TEST NO = 117-1  A/C MAKE/TYPY = AT
----- ROOM -----
SHAE = AIRFOIL  POSITION = 4.5" BEHIND; 10.5" BELOW
----- NOZZLE -----
TYPE = WHIRLJETS  SIZE = NA  ANGLE = 180 DEG

*-----------WING SPAN = 45.4 FEET------------*
LEFT BOOM LENGTH = 38.8 FEET  RIGHT
TIP  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = 113 MPH
ALTITUDE = 9 FT  LATERAL DISPL = 3.5 FT RIGHT OF CL
WIND SPEED = 9 MPH  WIND DIRECTION = 185 DEG
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 1B  SPEED = 113 MPH
ALTITUDE = 6.5 FT  LATERAL DISPL = 1.5 FT LEFT OF CL
WIND SPEED = 7 MPH  WIND DIRECTION = 175 DEG
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 1C  SPEED = 113 MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 7 MPH  WIND DIRECTION = 177 DEG
LEFT 30  20  10  0  10  20  30  RIGHT
TEST NO = 117-4  A/C MAKE/TYPE = AT
BOOM
SHAPE = AIRFOIL  POSITION = 4.5" BEHIND; 10.5" BELOW
NOZZLE
TYPE = WHIRLJETS  SIZE = NA  ANGLE = 180 DEG

WING SPAN = 45.4 FEET

LEFT BOOM LENGTH = 38.8 FEET  RIGHT TIP 15 10 5 CL 5 10 15 TIF

PASS NO 4A  SPEED = 120 MPH
ALTITUDE = 10 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 1 MPH  WIND DIRECTION = 149 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 4B  SPEED = 120 MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 1 MPH  WIND DIRECTION = 149 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 4C  SPEED = 116 MPH
ALTITUDE = 11 FT  LATERAL DISPL = 2 FT RIGHT OF CL
WIND SPEED = 8 MPH  WIND DIRECTION = 207 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 118-1  A/C MAKE/TYPE = E

----- BOOM ----- SHAPE = NA  POSITION = RAILING EDGE
----- NOZZLE ----- TYPE = TEEJET  SIZE = D6-45  ANGLE = NA DEG

*--------* WING SPAN = 52.2 FEET *--------* LEFT ROOM LENGTH = 49 FEET
TIP 15 10 5 CL 5 10 15 TIP

PASS NO 1A  SPEED = 99 MPH
ALTITUDE = 9.5 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 7 MPH  WIND DIRECTION = 173 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B  SPEED = 96 MPH
ALTITUDE = 9 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 178 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C  SPEED = 102 MPH
ALTITUDE = 9 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 202 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 119  A/C MAKE/TYP= = CS
----- BOOM ----- SHAPE = RD  POSITION = 7" BEHIND; 4.5" ABOVE
----- NOZZLE ----- TYPE = SPG SYS  SIZE = 10-45  ANGLE = NA DEG

*---------WING SPAN = 38.8 FEET---------*
LEFT  BOOM LENGTH = 33.1 FEET  RIGHT
TIP 15 10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 1C  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT 30  20  10  0  10  20  30  RIGHT
TEST NO = 120  A/C MAKE/TYPE = WX
----- BOOM -----  
SHAPE = RD  POSITION = 6" BEHIND
----- NOZZLE -----  
TYPE = TURRENT  SIZE = 4  ANGLE = NA DEG

*----------- WING SPAN = 39.1 FEET -----------*

LEFT  BOOM LENGTH = 35.7 FEET  RIGHT  
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A   SPEED = 79 MPH
ALTITUDE = 10 FT  LATERAL DISPL = 7 FT RIGHT OF CL
WIND SPEED = 6 MPH  WIND DIRECTION = 174 DEG

PASS NO 1B   SPEED = 90 MPH
ALTITUDE = 11 FT  LATERAL DISPL = 7 FT RIGHT OF CL
WIND SPEED = 6 MPH  WIND DIRECTION = 139 DEG

PASS NO 1C   SPEED = 93 MPH
ALTITUDE = 10 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 9 MPH  WIND DIRECTION = 147 DEG
TEST NO = 121-1  A/C MAKE/TYPE = WX

----- BOOM -----  SHAPE = AIRFOIL  POSITION = 8.5" BEHIND

----- NOZZLE -----  TYPE = TEEJET  SIZE = DB  ANGLE = NA DEG

WING SPAN = 40.9 FEET

LEFT  BOOM LENGTH = 33.4 FEET  RIGHT

TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = 111 MPH
ALTITUDE = 7 FT  LATERAL DISPL = 5 FT LEFT OF CL
WIND SPEED = 6 MPH  WIND DIRECTION = 202 DEG

PASS NO 1B  SPEED = 107 MPH
ALTITUDE = 10 FT  LATERAL DISPL = 2 FT LEFT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 210 DEG

PASS NO 1CD  SPEED = 107 MPH
ALTITUDE = 9 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 193 DEG
TEST NO = 121-3  A/C MAKE/TYPF = WX
----- BOOM ----- SHAPE = AIRFOIL  POSITION = 8.5" BEHIND
----- NOZZLE ----- TYPE = TEEJET  SIZE = D-8  ANGLE = NA DEG

*----------WING SPAN = 40.9 FEET----------*
LEFT BOOM LENGTH = 33.4 FEET  RIGHT TIP
CL 5 10 15 10 15 10 15 10 15

PASS NO 3A  SPEED = 92 MPH
ALTITUDE = 12 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 192 DEG

PASS NO 3B  SPEED = 99 MPH
ALTITUDE = 14 FT  LATERAL DISPL = 6 FT LEFT OF CL
WIND SPEED = 4 MPH  WIND DIRECTION = 181 DEG

PASS NO 3C  SPEED = 94 MPH
ALTITUDE = 11 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 2 MPH  WIND DIRECTION = 158 DEG
TEST NO = 122-2  A/C MAKE/TYPE = CS

----- BOOM -----  
SHAPE = RD  POSITION = 7.5" BEHIND; 4.5" ABOVE  
----- NOZZLE -----  
TYPE = SS  SIZE = 6-45  ANGLE = NA DEG

ORIGINAL PAGE IS OF POOR QUALITY

*----------WING SPAN = 42 FEET----------------*  
LEFT  BOOM LENGTH = 31.9 FEET  RIGHT  
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 2A  
SPEED = 106 MPH  
ALTITUDE = 10 FT  LATERAL DISPL = 0 FT RIGHT OF CL  
WIND SPEED = 6 MPH  WIND DIRECTION = 212 DEG  
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 2B  
SPEED = 110 MPH  
ALTITUDE = 11 FT  LATERAL DISPL = 0 FT RIGHT OF CL  
WIND SPEED = 5 MPH  WIND DIRECTION = 178 DEG  
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 2C  
SPEED = NA MPH  
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL  
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG  
LEFT 30  20  10  0  10  20  30  RIGHT
TEST NO = 122-3  A/C MAKE/TYPF = CS

----- BOOM -----  
SHAPE = RD  POSITION = 7.5" BEHIND; 4.5" ABOVE
----- NOZZLE -----  
TYPE = SS  SIZE = 6-45  ANGLE = NA DEG

*--------WING SPAN = 38.7 FEET----------*
LEFT BOOM LENGTH = 33 FEET  RIGHT
TIP 15 10 5 CL 5 10 15 TIP

PASS NO 3A  SPEED = 115 MPH
ALTITUDE = 9 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 4 MPH  WIND DIRECTION = 178 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 3B  SPEED = 69 MPH
ALTITUDE = 12 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 3 MPH  WIND DIRECTION = 129 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 3C  SPEED = 112 MPH
ALTITUDE = 11 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 3 MPH  WIND DIRECTION = 185 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 124  A/C MAKE/TYPE = CS
------ BOOM ------
SHAPE = AIRFOIL  POSITION = NA
------ NOZLLE ------
TYPE = NA  SIZE = D4-45  ANGLE = NA DEG

*---------WING SPAN = 42 FEET-----------*
LEFT BOOM LENGTH = 31.8 FEET  RIGHT
TIP 15 10 5 CL 5 10 15 TIP

PASS NO 1A  SPEED = 113 MPH
ALTITUDE = 18 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 3 MPH  WIND DIRECTION = 191 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B  SPEED = 107 MPH
ALTITUDE = 18 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 6 MPH  WIND DIRECTION = 197 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C  SPEED = 112 MPH
ALTITUDE = 15.5 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 4 MPH  WIND DIRECTION = 178 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 125  A/C MAKE/TYPE = CS

----- BOOM -----  SHAPE = RD  POSITION = NA

----- NOZZLE -----  TYPE = NA  SIZE = 6-45  ANGLE = NA DEG

*----------WING SPAN = 41.8 FEET-------------*

LEFT BOOM LENGTH = 33.1 FEET  RIGHT TIP

PASS NO 1A  SPEED = 100 MPH
ALTITUDE = 12 FT  LATERAL DISPL = 4 FT LEFT OF CL
WIND SPEED = 4 MPH  WIND DIRECTION = 196 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B  SPEED = 105 MPH
ALTITUDE = 11 FT  LATERAL DISPL = 5 FT LEFT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 220 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C  SPEED = 107 MPH
ALTITUDE = 10 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 4 MPH  WIND DIRECTION = 218 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 126  A/C MAKE/TYOE = CS  

SHAPE = AIRFOIL  POSITION = 4" BEHIND, 8" ABOVE  

BOOM -----

SHAPE = AIRFOIL  POSITION = 4" BEHIND, 8" ABOVE  

NOZZLE -----

TYPE = NA  SIZE = 7-45  ANGLE = NA DEG

WING SPAN = 42 FEET  

LEFT TIP 15 10 5 3 CL 5 10 15 TIP  

RIGHT TIP 15 10 5 CL 5 10 15 TIP

PASS NO 1A  

SPEED = 107 MPH  

ALTITUDE = NA FT  

LATERAL DISPL = NA FT OF CL

WIND SPEED = 6 MPH  

WIND DIRECTION = 218 DEG

LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B  

SPEED = 112 MPH  

ALTITUDE = 17 FT  

LATERAL DISPL = 2 FT RIGHT OF CL

WIND SPEED = 5 MPH  

WIND DIRECTION = 223 DEG

LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C  

SPEED = 104 MPH  

ALTITUDE = 19 FT  

LATERAL DISPL = 1 FT LEFT OF CL

WIND SPEED = 4 MPH  

WIND DIRECTION = 214 DEG

LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 127  A/C MAKE/TYPE = WX-TURBINE
----- BOOM -----  
SHAPE = STD.WEATHERLY  POSITION = NA
----- NOZZLE -----  
TYPE = FLOODJETS  SIZE = TK5  ANGLE = NA DEG

*------- WING SPAN = 40.2 FEET -----*
LEFT  
BOOM LENGTH = 30.6 FEET
TIP 15  10  5  CL  5  10  15  1F  

PASS NO 1A  
SPEED = 75 MPH
ALTITUDE = 13 FT  LATERAL DISPL = 2 FT LEFT OF CL
WIND SPEED = 7 MPH  WIND DIRECTION = 179 DEG
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 1B  
SPEED = 117 MPH
ALTITUDE = 11 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 164 DEG
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 1C  
SPEED = 110 MPH
ALTITUDE = 13 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 171 DEG
LEFT 30  20  10  0  10  20  30  RIGHT
Pilot's Report

Test No: 128
A/C Make/Type: PF

Boom

Shape: Airfoil Position: 6" behind; 8" below

Nozzle

Type: Floodjets Size: NA Angle: NA Deg

Wing Span: 35.3 feet

Boom Length: 29.3 feet

Tip 15 10 5 CL 5 10 15 TIP

Pass No 1A

SPEED = 106 MPH
ALTITUDE = 10 FT LATERAL DISPL. = 0 FT RIGHT OF CL
WIND SPEED = 3 MPH WIND DIRECTION = 241 Deg

Pass No 1B

SPEED = 106 MPH
ALTITUDE = 10 FT LATERAL DISPL. = 0 FT RIGHT OF CL
WIND SPEED = NA MPH WIND DIRECTION = 255 Deg

Pass No 1C

SPEED = 112 MPH
ALTITUDE = 11 FT LATERAL DISPL. = 0 FT RIGHT OF CL
WIND SPEED = 2 MPH WIND DIRECTION = 166 Deg
TEST NO = 127
A/C MAKE/TYPE = CS
----- BOOM -----
SHAPE = AIRFOIL  POSITION = NA
----- NOZZLE -----
TYPE = SMITH FAIR  SIZE = D10  ANGLE = NA DEG

WING SPAN = 42 FEET
LEFT BOOM LENGTH = 32.1 FEET
TIP 15 10 5 CL 5 10 15 TIP

PASS NO 1A
SPEED = 107 MPH
ALTITUDE = 20 FT  LATERAL DISPL = 2 FT LEFT OF CL
WIND SPEED = 3 MPH  WIND DIRECTION = 156 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B
SPEED = 110 MPH
ALTITUDE = 14 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 3 MPH  WIND DIRECTION = 209 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C
SPEED = 100 MPH
ALTITUDE = 14 FT  LATERAL DISPL = 3 FT LEFT OF CL
WIND SPEED = 4 MPH  WIND DIRECTION = 151 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 130-1  A/C MAKE/TYPF = CS
----- BOOM -----  
SHAPE = AIRFOIL  POSITION = NA
----- NOZZLE -----  
TYPE = SMITH FAIR  SIZE = D12-45  ANGLE = NA DEG

-----------WING SPAN = 42 FEET-----------
LEFT  BOOM LENGTH = 32 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = 118 MPH
ALTITUDE = 13 FT  LATERAL DISPL = 2 FT RIGHT OF CL
WIND SPEED = 4 MPH  WIND DIRECTION = 193 DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1B  SPEED = 118 MPH
ALTITUDE = 12 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 3 MPH  WIND DIRECTION = 184 DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1C  SPEED = 112 MPH
ALTITUDE = 11 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 4 MPH  WIND DIRECTION = 168 DEG
LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 130-2  A/C MAKE/TYPE = CS
BOOM ----- SHAPE = AIRFOIL  POSITION = NA
----- NOZZLE ----- TYPE = SMITH FAIR  SIZE = D10-45  ANGLE = NA DEG

WING SPAN = 42 FEET  LEFT BOOM LENGTH = 32 FEET

PASS NO 2A  SPEED = 118 MPH
ALTITUDE = 9 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 3 MPH  WIND DIRECTION = 171 DEG

PASS NO 26  SPEED = 119 MPH
ALTITUDE = 8 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 6 MPH  WIND DIRECTION = 189 DEG

PASS NO 70  SPEED = 123 MPH
ALTITUDE = 7 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 3 MPH  WIND DIRECTION = 191 DEG

ORIGINAL PAGE IS OF POOR QUALITY
TEST NO = 131  A/C MAKE/TYE = CS
----- BOOM -----  
SHAPE = AIRFOIL  POSITION = NA
----- NOZZLE -----  
TYPE = SPG SYS TURRET  SIZE = D4  ANGLE = NA DEG

WING SPAN = 41.8 FEET  
LEFT BOOM LENGTH = 37.8 FEET

PASS NO 1A  SPEED = 111 MPH
ALTITUDE = 14 FT  LATERAL DISPL = 5 FT RIGHT OF CL
WIND SPEED = 4 MPH  WIND DIRECTION = 206 DEG

PASS NO 1B  SPEED = 114 MPH
ALTITUDE = 14 FT  LATERAL DISPL = 2 FT RIGHT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 203 DEG

PASS NO 1C  SPEED = 111 MPH
ALTITUDE = 9 FT  LATERAL DISPL = 2 FT RIGHT OF CL
WIND SPEED = 4 MPH  WIND DIRECTION = 200 DEG
TEST NO = 132

A/C MAKE/TYPÉ = AT

BOOM -----

SHAPE = AIRFOIL

POSITION = 3" BEHIND; 8" BELOW

NOZZLE -----

TYPE = WHIRLJETS

SIZE = #3

ANGLE = 180 DEG

WING SPAN = 45.3 FEET

LEFT BOOM LENGTH = 39.3 FEET

RIGHT TIP

BOOM LENGTH = 39.7 FEET

LEFT TIP

SPAN = 45.7 FEET

BOOM LENGTH = 39.7 FEET

LEFT TIP

SPEED = 121 MPH

ALTITUDE = 13 FT

LATERAL DISPL = 2 FT LEFT OF CL

WIND SPEED = 3 MPH

WIND DIRECTION = 69 DEG

LEFT 30 20 10 0 10 20 30 RIGHT

SPEED = 120 MPH

ALTITUDE = 14 FT

LATERAL DISPL = 2 FT RIGHT OF CL

WIND SPEED = 5 MPH

WIND DIRECTION = 199 DEG

LEFT 30 20 10 0 10 20 30 RIGHT

SPEED = 118 MPH

ALTITUDE = 13 FT

LATERAL DISPL = 4 FT LEFT OF CL

WIND SPEED = 6 MPH

WIND DIRECTION = 105 DEG

LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 133-2  A/C MAKE/TYPE = TT
----- BOOM ----- 
SHAPE = AIRFOIL  POSITION = 3" BEHIND; 9" BELOW
----- NOZZLE ----- 
TYPE = WHIRLJETS  SIZE = #10  ANGLE = 180 DEG

*----------- WING SPAN = 44 FEET -----------*
LEFT BOOM LENGTH = 40 FEET  RIGHT
TIP 15 10 5 CL 5 10 15 TIP

PASS NO 1A  SPEED = 128 MPH
ALTITUDE = 11 FT  LATERAL DISPL. = 2 FT LEFT OF CL
WIND SPEED = 11 MPH  WIND DIRECTION = 173 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B  SPEED = 132 MPH
ALTITUDE = 10 FT  LATERAL DISPL. = 2 FT LEFT OF CL
WIND SPEED = 11 MPH  WIND DIRECTION = 157 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C  SPEED = 136 MPH
ALTITUDE = 11 FT  LATERAL DISPL. = 2 FT LEFT OF CL
WIND SPEED = 9 MPH  WIND DIRECTION = 166 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 134  A/C MAKE/TYPE = AC
----- ROOM -----  SHAPE = RD  POSITION = NA
----- NOZZLE -----  TYPE = ACUMIST  SIZE = NA  ANGLE = NA DEG

*----------WING SPAN = 37.3 FEET ------------- *

PASS NO 1A  SPEED = 95 MPH
ALTITUDE = 11 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 8 MPH  WIND DIRECTION = 191 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B  SPEED = 94 MPH
ALTITUDE = 10 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 11 MPH  WIND DIRECTION = 193 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C  SPEED = 91 MPH
ALTITUDE = 10 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 9 MPH  WIND DIRECTION = 144 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 135-1  
A/C MAKE/TYPE = T

BOOM -------

SHAPE = AIRFOIL  
POSITION = 1" BEHIND; 9" BELOW

NOZZLE -------

TYPE = SPG SYS HOLLOW CONE  
SIZE = D5  
ANGLE = 135 DEG

WING SPAN = 44.5 FEET

LEFT BOOM LENGTH = 37.3 FEET

TIP  
15  10  5  0  10  20  30  RIGHT

PASS NO 1A  
SPEED = 111 MPH

ALTITUDE = 11 FT  
LATERAL DISPL = 3 FT RIGHT OF CL

WIND SPEED = 8 MPH  
WIND DIRECTION = 161 DEG

LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 1B  
SPEED = 169 MPH

ALTITUDE = 10 FT  
LATERAL DISPL = 0 FT RIGHT OF CL

WIND SPEED = 4 MPH  
WIND DIRECTION = 149 DEG

LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 1C  
SPEED = 104 MPH

ALTITUDE = 11 FT  
LATERAL DISPL = 1 FT RIGHT OF CL

WIND SPEED = 10 MPH  
WIND DIRECTION = 174 DEG

LEFT 30  20  10  0  10  20  30  RIGHT
TEST NO = 135-2  A/C MAKE/TYPE = T
----- BOOM -----  
SHAPE = AIRFOIL  POSITION = 1" BEHIND; 9" BELOW
----- NOZZLE -----  
TYPE = SPG SYS HOLLOW CONE  SIZE = D5  ANGLE = 135 DEG

*---------- WING SPAN = 44.5 FEET ----------*

LEFT BOOM LENGTH = 37.3 FEET  RIGHT
TIP 15 10 5 CL 5 10 15 TIP

PASS NO 2A  SPEED = 97 MPH
ALTITUDE = 10 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 6 MPH  WIND DIRECTION = 162 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 2B  SPEED = 96 MPH
ALTITUDE = 10 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 8 MPH  WIND DIRECTION = 186 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 2C  SPEED = 94 MPH
ALTITUDE = 11 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 12 MPH  WIND DIRECTION = 176 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 136-1  A/C MAKE/TYPE = A1

----- BOOM ----- SHAPE = AIRFOIL  POSITION = 4" BEHIND; 10" BELOW

----- NOZZLE ----- TYPE = WHIRLJETS  SIZE = 10  ANGLE = 180 DEG

*----------- WING SPAN = 45.4 FEET -----------*

LEFT  BOOM LENGTH = 40.4 FEET  RIGHT  TIP

15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = 127 MPH
ALTITUDE = 12 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 7 MPH  WIND DIRECTION = 196 DEG

PASS NO 1B  SPEED = 123 MPH
ALTITUDE = 14 FT  LATERAL DISPL = 3 FT LEFT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 184 DEG

PASS NO 1C  SPEED = 121 MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 9 MPH  WIND DIRECTION = 195 DEG
TEST NO = 136-2  A/C MAKE/TYPE = AT
----- BOOM -----
SHAPE = AIRFOIL  POSITION = 4" BEHIND; 10" BELOW
----- NOZZLE -----
TYPE = WHIRLJETS  SIZE = D10  ANGLE = 180 DEG

WING SPAN = 45.4 FEET

LEFT BOOM LENGTH = 40.4 FEET

TIP  15  10  5  CL  5  10  15  TIP

PASS NO 2A  SPEED = 127 MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 177 DEG

PASS NO 2B  SPEED = 129 MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 8 MPH  WIND DIRECTION = 180 DEG

PASS NO 2C  SPEED = 129 MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 10 MPH  WIND DIRECTION = 181 DEG

ORIGINAL PAGE IS OF POOR QUALITY
TEST NO = 137-1  A/C MAKE/TYPE = CS
----- BOOM -----
SHAPE = AIRFOIL  POSITION = NA
----- NOZZLE -----
TYPE = NA  SIZE = 10-45  ANGLE = NA DEG

*----------WING SPAN = 41.8 FEET----------*
LEFT BOOM LENGTH = 32.3 FEET  RIGHT TIP

PASS NO 1A  SPEED = 105 MPH
ALTIMETURE = NA FT  LATERAL DIPL = NA FT OF CL
WIND SPEED = 7 MPH  WIND DIRECTION = 200 DEG
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 1B  SPEED = 105 MPH
ALTIMETURE = NA FT  LATERAL DIPL = NA FT OF CL
WIND SPEED = 10 MPH  WIND DIRECTION = 185 DEG
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 1C  SPEED = 105 MPH
ALTIMETURE = 9 FT  LATERAL DIPL = 0 FT RIGHT OF CL
WIND SPEED = 8 MPH  WIND DIRECTION = 205 DEG
LEFT 30  20  10  0  10  20  30  RIGHT
TEST NO = 137-3  A/C MAKE/TYPE = CS

----- BOOM ----- SHAPE = AIRFOIL  POSITION = NA
----- NOZZLE ----- TYPE = NA  SIZE = 10-45  ANGLE = NA DEG

----------- WING SPAN = 41.8 FEET ----------
LEFT  BOOM LENGTH = 32.3 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 3A  SPEED = 111 MPH
ALTITUDE = 10 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 3 MPH  WIND DIRECTION = 188 DEG

PASS NO 3B  SPEED = 113 MPH
ALTITUDE = 9 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 3 MPH  WIND DIRECTION = 207 DEG

PASS NO 3C  SPEED = 120 MPH
ALTITUDE = 8 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 2 MPH  WIND DIRECTION = 235 DEG
TEST NO = 138  A/C MAKE/TYPE = AT
----- ROOM -----  
SHAPE = AIRFOIL  POSITION = NA  
----- NOZZLE -----  
TYPE = WHIRLJETS  SIZE = NA  ANGLE = NA DEG

WING SPAN = 45.3 FEET

LEFT BOOM LENGTH = 37 FEET

PASS NO 1A  
SPEED = 126 MPH
ALTITUDE = 19 FT  LATERAL DISPL = 5 FT LEFT OF CL
WIND SPEED = 9 MPH  WIND DIRECTION = 208 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B  
SPEED = 118 MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 8 MPH  WIND DIRECTION = 196 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C  
SPEED = 124 MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 8 MPH  WIND DIRECTION = 196 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 139-1  A/C MAKE-TYPE = FF
----- BOOM -----  
SHAPE = RD  POSITION = 5.5 BEHIND 
----- NOZZLE -----  
TYPE = SPG SYS  SIZE = 6-45  ANGLE = 180 DEG

ROOM SIZE - R1)

--- WING SPAN = 38.4 FEET ---

LEFT BOOM LENGTH = 26.2 FEET RIGHT
TIP 15 10 5 CL 5 10 15 TIP

ORIGINAL PAGE IS OF POOR QUALITY

PASS NO 1A  SPEED = 91 MPH
ALTITUDE = 7 FT  LATERAL DISPL. = 0 FT RIGHT OF CL
WIND SPEED = 4 MPH  WIND DIRECTION = 178 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B  SPEED = 88 MPH
ALTITUDE = 8 FT  LATERAL DISPL. = 0 FT RIGHT OF CL
WIND SPEED = 8 MPH  WIND DIRECTION = 114 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C  SPEED = 91 MPH
ALTITUDE = 7 FT  LATERAL DISPL. = 1 FT LEFT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 220 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 140-1 A/C MAKE/TYPE = AC

BOOM

SHAPE = RD POSITION = 5.5 BEHIND

NOZZLE

TYPE = SMITH FAIR SIZE = D66 ANGLE = 180 DEG

WING SPAN = 34.1 FEET

LEFT BOOM LENGTH = 30.3 FEET RIGHT

TIP 15 10 5 CL 5 10 15 TIP

PASS NO 1A SPEED = 96 MPH

ALTITUDE = 10 FT LATERAL DISPL = 2 FT LEFT OF CL

WIND SPEED = 5 MPH WIND DIRECTION = 202 DEG

LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B SPEED = 96 MPH

ALTITUDE = 10 FT LATERAL DISPL = 4 FT LEFT OF CL

WIND SPEED = 1 MPH WIND DIRECTION = 108 DEG

LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C SPEED = NA MPH

ALTITUDE = NA FT LATERAL DISPL = NA FT OF CL

WIND SPEED = NA MPH WIND DIRECTION = 217 DEG

LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 141-1  A/C MAKE/TYPE = AC

BOOM ----- TYPE = NA  SIZE = NA  ANGLE = 90 DEG

SHAPe = AIRFOIL  POSITION = 10" BEHIND; 7" BELOW

WING SPAN = 37.9 FEET

LEFT BOOM LENGTH = 31.7 FEET

PASS NO 1A  SPEED = 99 MPH
ALTITUDE = 10 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 1 MPH  WIND DIRECTION = 155 DEG

PASS NO 1B  SPEED = 102 MPH
ALTITUDE = 9 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 7 MPH  WIND DIRECTION = 247 DEG

PASS NO 1C  SPEED = 96 MPH
ALTITUDE = 9 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 7 MPH  WIND DIRECTION = 199 DEG
TEST NO = 141-2  A/C MAKE/TYPE = AC
SHAPE = AIRFOIL  POSITION = 10" BEHIND; 7" BELOW
TYPE = NA SIZE = NA  ANGLE = 90 DEG

#--------WING SPAN = 37.9 FEET--------#
LEFT  BOOM LENGTH = 31.7 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 2A  SPEED = 101 MPH
ALTITUDE = 8 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 8 MPH  WIND DIRECTION = 210 DEG
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 2B  SPEED = 100 MPH
ALTITUDE = 9 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 7 MPH  WIND DIRECTION = 190 DEG
LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 2C  SPEED = 95 MPH
ALTITUDE = 9 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 7 MPH  WIND DIRECTION = 218 DEG
LEFT 30  20  10  0  10  20  30  RIGHT
TEST NO = 142-1
A/C MAKE/TYE = AC

----- BOOM -----
SHAPE = RD
POSITION = 4" BEHIND

----- NOZZLE -----
TYPE = SMITH FAIR
SIZE = 04-6-8
ANGLE = 180 DEG

* * *

WING SPAN = 34 FEET
LEFT BOOM LENGTH = 31.3 FEET
RIGHT TIP

WIND SPAN = 34 FEET

PASS NO 1A
SPEED = 89 MPH

ALTITUDE = NA FT
LATERAL DISPL = NA FT
WIND SPEED = 4 MPH
WIND DIRECTION = 192 DEG

LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B
SPEED = 83 MPH

ALTITUDE = NA FT
LATERAL DISPL = NA FT
WIND SPEED = 4 MPH
WIND DIRECTION = 157 DEG

LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C
SPEED = 83 MPH

ALTITUDE = NA FT
LATERAL DISPL = NA FT
WIND SPEED = 4 MPH
WIND DIRECTION = 157 DEG

LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 142-2  A/C MAKE/TYPE = AC

SHAPE = RD  POSITION = 4" BEHIND

TYPE = SMITH FAIR  SIZE = D4-6-8  ANGLE = 180 DEG

*-----------WING SPAN = 34 FEET-------------*

LEFT  BOOM LENGTH = 31.3 FEET  RIGHT
TIP 15 10 5  CL 5 10 15 TIP

PASS NO 2A  SPEED = 96 MPH
ALTITUDE = 8 FT  LATERAL DISPL. = 1 FT RIGHT OF CL
WIND SPEED = 6 MPH  WIND DIRECTION = 192 DEG

PASS NO 2B  SPEED = 92 MPH
ALTITUDE = 10 FT  LATERAL DISPL. = 1 FT LEFT OF CL
WIND SPEED = 7 MPH  WIND DIRECTION = 192 DEG

PASS NO 2C  SPEED = 94 MPH
ALTITUDE = 9 FT  LATERAL DISPL. = 0 FT RIGHT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 154 DEG
TEST NO = 143-1  
A/C MAKE/TYPE = AC

SHAPE = RD  
POSITION = NA

TYPE = SMITH FAIR  
SIZE = 6  
ANGLE = NA DEG

WING SPAN = 38.1 FEET

LEFT  
BOOM LENGTH = 31.3 FEET  
RIGHT

TIP  
15  
10  
5  
CL  
5  
10  
15  
TIP

PASS NO 1A  
SPEED = 105 MPH
ALITUDE = 14 FT  
LATERAL DISPL = 2 FT RIGHT OF CL
WIND SPEED = NA MPH  
WIND DIRECTION = 178 DEG

PASS NO 1B  
SPEED = 101 MPH
ALITUDE = 14 FT  
LATERAL DISPL = 2 FT RIGHT OF CL
WIND SPEED = 1 MPH  
WIND DIRECTION = 178 DEG

PASS NO 1C  
SPEED = 107 MPH
ALITUDE = 15 FT  
LATERAL DISPL = 2 FT LEFT OF CL
WIND SPEED = 2 MPH  
WIND DIRECTION = 178 DEG

LEFT  
30  
20  
10  
0  
10  
20  
30  
RIGHT
TEST NO = 143-2  A/C MAKE TYPE = AC
BOOM
SHAPE = RD POSITION = NA
NOZZLE
TYPE = SMITH FAIR SIZE = 6 ANGLE = NA DEG

WING SPAN = 38.1 FEET

LEFT BOOM LENGTH = 31.3 FEET RIGHT TIP
15 10 5 CL 5 10 15 TIP

PASS NO 2A  SPEED = 100 MPH
ALTITUDE = 9 FT LATERAL DISPL = 2 FT LEFT OF CL
WIND SPEED = 6 MPH WIND DIRECTION = 227 DEG

PASS NO 2B  SPEED = 98 MPH
ALTITUDE = 7 FT LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 9 MPH WIND DIRECTION = 207 DEG

PASS NO 2C  SPEED = 93 MPH
ALTITUDE = NA FT LATERAL DISPL = NA FT LEFT OF CL
WIND SPEED = 9 MPH WIND DIRECTION = 193 DEG
TEST NO = 144  A/C MAKE/TYPE = T  
------ BOOM ------
SHAPE = AIRFOIL  POSITION = 4" BEHIND; 9" BELOW  
------ NOZZLE ------
TYPE = NA  SIZE = 6-45  ANGLE = 90 DEG

*---------*  WING SPAN = 44.6 FEET*---------*
LEFT  BOOM LENGTH = 37.1 FEET  RIGHT  
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  
SPEED = 114 MPH  
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL  
WIND SPEED = 1 MPH  WIND DIRECTION = 179 DEG  
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1B  
SPEED = 115 MPH  
ALTITUDE = 12 FT  LATERAL DISPL = 0 FT RIGHT OF CL  
WIND SPEED = NA MPH  WIND DIRECTION = 178 DEG  
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1C  
SPEED = 108 MPH  
ALTITUDE = 13 FT  LATERAL DISPL = 1 FT RIGHT OF CL  
WIND SPEED = NA MPH  WIND DIRECTION = 178 DEG  
LEFT  30  20  10  0  10  20  30  RIGHT
**TEST NO = 145-1**

**A/C MAKE/TYPE = T**

**BOOM**

**SHAPE = AIRFOIL**

**POSITION = 2" BEHIND; 8.5" BELOW**

**NOZZLE**

**TYPE = WHIRLJETS**

**SIZE = M5**

**ANGLE = 180 DEG**

*----------WING SPAN = 44.1 FEET-------------*

**LEFT**

**BOOM LENGTH = 37.4 FEET**

**TIP 15 10 5 CL 5 10 15 TIP**

---

**PASS NO 1A**

**SPEED = 116 MPH**

**ALTITUDE = 8 FT**

**LATERAL DISPL = 5 FT RIGHT OF CL**

**WIND SPEED = 3 MPH**

**WIND DIRECTION = 160 DEG**

**LEFT 30 20 10 0 10 20 30 RIGHT**

---

**PASS NO 1B**

**SPEED = NA MPH**

**ALTITUDE = 7 FT**

**LATERAL DISPL = 0 FT RIGHT OF CL**

**WIND SPEED = NA MPH**

**WIND DIRECTION = NA DEG**

**LEFT 30 20 10 0 10 20 30 RIGHT**

---

**PASS NO 1C**

**SPEED = 114 MPH**

**ALTITUDE = 7 FT**

**LATERAL DISPL = 0 FT RIGHT OF CL**

**WIND SPEED = 4 MPH**

**WIND DIRECTION = 231 DEG**

**LEFT 30 20 10 0 10 20 30 RIGHT**
TEST NO = 145-2  A/C MANE/TYPF = T

----- BOOM -----  
SHAPE = AIRFOIL  POSITION = 2" BEHIND; 8.5" BELOW  
----- NOZL -----  
TYPE = WHIRLJETS SIZE = #5  ANGLE = 180 DEG

*----------------------WING SPAN = 44.1 FEET----------------------*

LEFT BOOM LENGTH = 37.4 FEET

RIGHT

TIP  15  10  5  CL  5  10 15  TIP

TEST NO = 146  A/C MAKE/TYPV = T
----- BOOM -----  
SHAPE = AIRFOIL  POSITION = 4\" BEHIND; 9.5\" BELOW 
----- NOZZLE ------  
TYPE = SMITH FAMILY SIZE = NA  ANGLE = 90 DEG

-------- WING SPAN = 45.3 FEET --------
LEFT BOOM LENGTH = 32.3 FEET RIGHT
TIP  15  10  5  CL  5  10  15 TIP

PASS NO 1A  SPEED = 128 MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 222 MPH  WIND DIRECTION = 7 DEG
LEFT 30  20  10  0  10  20  30 RIGHT

PASS NO 1B  SPEED = 128 MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 7 MPH  WIND DIRECTION = 222 DEG
LEFT 30  20  10  0  10  20  30 RIGHT

PASS NO 1C  SPEED = 125 MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 199 DEG
LEFT 30  20  10  0  10  20  30 RIGHT
TEST NO = 14
AVE MALE TYPE = AT
----- BOOM -----
SHAPE = AIRFOIL
POSITION = 4" BEHIND; 9.5" BELOW
----- NOZZLE -----
TYPE = TEEJETS
SIZE = NA
ANGLE = 90 DEG

*---------- WING SPAN = 45.4 FEET ----------*
LEFT BOOM LENGTH = 41.5 FEET
RIGHT TIP 15 10 5 CL 5 10 15 TIP

PASS NO IA
SPEED = 125 MPH
ALTITUDE = 17 FT
LATERAL DISPL = 2 FT RIGHT OF CL
WIND SPEED = 6 MPH
WIND DIRECTION = 144 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO IB
SPEED = 129 MPH
ALTITUDE = 17 FT
LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 6 MPH
WIND DIRECTION = 149 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO IC
SPEED = 123 MPH
ALTITUDE = 14 FT
LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 7 MPH
WIND DIRECTION = 205 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 148-1    A/C MAKE/TYPE = CS

--- BOOM ---

SHAPE = AIRFOIL    POSITION = NA

--- NOZZLE ---

TYPE = FLOODJETS    SIZE = #10    ANGLE = NA DEG

---------- WING SPAN = 41.8 FEET ----------

LEFT ROOM LENGTH = 27 FEET    RIGHT

TIP 15 10 5  CL 5 10 15 TIP

PASS NO 1A    SPEED = NA MPH

ALTITUDE = NA FT    LATERAL DISPL = NA FT OF CL

WIND SPEED = NA MPH    WIND DIRECTION = NA DEG

LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1B    SPEED = NA MPH

ALTITUDE = NA FT    LATERAL DISPL = NA FT OF CL

WIND SPEED = 2 MPH    WIND DIRECTION = 176 DEG

LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 1C    SPEED = NA MPH

ALTITUDE = 12 FT    LATERAL DISPL = 1 FT RIGHT OF CL

WIND SPEED = 2 MPH    WIND DIRECTION = 179 DEG

LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 148-2  A/C MAKE/TYPE = CS
----- ROUGH ----- 
SHAPE = AIRFOIL  POSITION = NA
----- NOZZLE ----- 
TYPE = FLOODJETS  SIZE = #10  ANGLE = NA DEG

----------- WING SPAN = 41.8 FEET ----------- 
LEFT BOOM LENGTH = 27 FEET  RIGHT TIP 15 10 5 CL 5 10 15 TIP

PASS NO 2A  SPEED = 107 MPH 
ALTITUDE = 9 FT  LATERAL DISPL = 2 FT RIGHT OF CL
WIND SPEED = 2 MPH  WIND DIRECTION = 174 DEG
LEFT 10  20  10  0  10  20  30  RIGHT

PASS NO 2B  SPEED = 105 MPH 
ALTITUDE = 10 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 10 MPH  WIND DIRECTION = 156 DEG
LEFT 10  20  10  0  10  20  30 RIGHT

PASS NO 2C  SPEED = 97 MPH 
ALTITUDE = 9.5 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 7 MPH  WIND DIRECTION = 167 DEG
LEFT 10  20  10  0  10  20  30 RIGHT

ORIGINAL PAGE IS OF POOR QUALITY
TEST NO = 145-1  A/C MAKE/TYPE = CS

SHAPE = AIRFOIL  POSITION = NA

TYPE = NA  SIZE = NA  ANGLE = NA DEG

WING SPAN = 41.8 FEET

LEFT  ROOM LENGTH = 27.1 FEET  RIGHT

TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEE = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 3 MPH  WIND DIRECTION = 172 DEG

PASS NO 1B  SPEE = NA MPH
ALTITUDE = 11 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 6 MPH  WIND DIRECTION = 205 DEG

PASS NO 1C  SPEE = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 9 MPH  WIND DIRECTION = 188 DEG
TEST NO = 149-2 A/C MAKE/TYPE = CS

----- BOOM ----- SHAPE = AIRFOIL POSITION = NA

----- NOZZLE ----- TYPE = NA SIZE = NA ANGLE = NA DEG

----------WING SPAN = 41.8 FEET----------

LEFT BOOM LENGTH = 27.1 FEET RIGHT TIP

15 10 5 CL 5 10 15 TIP

PASS NO 2A SPEED = 98 MPH

ALTITUDE = 11 FT LATERAL DISPL = 3 FT RIGHT OF CL

WIND SPEED = 10 MPH WIND DIRECTION = 166 DEG

LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 2B SPEED = 97 MPH

ALTITUDE = 10 FT LATERAL DISPL = 0 FT RIGHT OF CL

WIND SPEED = 10 MPH WIND DIRECTION = 166 DEG

LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 2C SPEED = 101 MPH

ALTITUDE = 11 FT LATERAL DISPL = 2 FT RIGHT OF CL

WIND SPEED = 5 MPH WIND DIRECTION = 149 DEG

LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 14R-3  A/C MAKE/TYPE = CS
BOOM -----  SHAPE = AIRFOIL  POSITION = NA
NOZZLE -----  TYPE = NA  SIZE = NA  ANGLE = NA DEG

WING SPAN = 41.8 FEET
LEFT BOOM LENGTH = 27.1 FEET  RIGHT TIP

PASS NO 3A  SPEED = 95 MPH
ALTITUDE = 9 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 6 MPH  WIND DIRECTION = 172 DEG

PASS NO 3B  SPEED = 97 MPH
ALTITUDE = 9.5 FT  LATERAL DISPL = 3 FT LEFT OF CL
WIND SPEED = 9 MPH  WIND DIRECTION = 171 DEG

PASS NO 3C  SPEED = 99 MPH
ALTITUDE = 12 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 9 MPH  WIND DIRECTION = 215 DEG
TEST NO = 150-1  A/C MAKE/TYPE = WX-T

SHADE = AIRFOIL  POSITION = NA

TYPE = FLOOD  SIZE = TK-5  ANGLE = NA DEG

WING SPAN = 39 FEET

PASS NO 1A  SPEED = 113 MPH
ALTITUDE = 8 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 178 DEG

PASS NO 1B  SPEED = 118 MPH
ALTITUDE = 11 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 3 MPH  WIND DIRECTION = 176 DEG

PASS NO 1C  SPEED = 114 MPH
ALTITUDE = 9 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 166 DEG
TEST NO = 150-3  A/C MAKE/TYPsE = WX-T
BOOM
SHAPE = AIRFOIL  POSITION = NA
NOZZLE
TYPE = FLOOD  SIZE = TK-5  ANGLE = NA DEG

*---------WING SPAN = 40.4 FEET----------*
LEFT  BOOM LENGTH = 33.5 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

ORIGINAL PAGE IS
OF POOR QUALITY

PASS NO 3A  SPEED = 104 MPH
ALTITUDE = 11 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 180 DEG
LEFT 30  20  10  0  10  20  30 RIGHT

PASS NO 3B  SPEED = 103 MPH
ALTITUDE = 11 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 181 DEG
LEFT 30  20  10  0  10  20  30 RIGHT

PASS NO 3C  SPEED = 106 MPH
ALTITUDE = 11 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 182 DEG
LEFT 30  20  10  0  10  20  30 RIGHT
TEST NO = 151-1   A/C MAKE/TYPE = AT

SHAPE = AIRFOIL   POSITION = 4" BEHIND; 10" BELOW

TYPE = NA   SIZE = NA   ANGLE = 90 DEG

WING SPAN = 45.3 FEET

LEFT  BOOM LENGTH = 35.9 FEET  RIGHT
TIP  15   10   5   CL  5   10   15  TIP

ORIGINAL PAGE 15

POOR QUALITY

PASS NO 1A   SPEED = 97 MPH
ALTITUDE = 9.5 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 5 MPH   WIND DIRECTION = 157 DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1B   SPEED = 115 MPH
ALTITUDE = 8.5 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 4 MPH   WIND DIRECTION = 146 DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1C   SPEED = 108 MPH
ALTITUDE = 9.5 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 7 MPH   WIND DIRECTION = 154 DEG
LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 151-2 A/C MAKE/TYPE = AT

BOOM

SHAPE = AIRFOIL POSITION = 4" BEHIND; 10" BELOW NOZZLE

TYPE = NA SIZE = NA ANGLE = 90 DEG

*-------------WING SPAN = 45.3 FEET-------------*

LEFT BOOM LENGTH = 35.9 FEET RIGHT

TIP  15  10  5  CL  5  10  15  TIP

PASS NO 2A  SPEED = 108 MPH

ALTITUDE = 6 FT LATERAL DISPL = 0 FT RIGHT OF CL

WIND SPEED = 9 MPH WIND DIRECTION = 204 DEG

LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 2B  SPEED = 110 MPH

ALTITUDE = 6 FT LATERAL DISPL = 0 FT RIGHT OF CL

WIND SPEED = 9 MPH WIND DIRECTION = 194 DEG

LEFT 30  20  10  0  10  20  30  RIGHT

PASS NO 2C  SPEED = 116 MPH

ALTITUDE = 8 FT LATERAL DISPL = 1 FT RIGHT OF CL

WIND SPEED = 11 MPH WIND DIRECTION = 154 DEG

LEFT 30  20  10  0  10  20  30  RIGHT
TEST NO = 151-3    A/C MAKE/TYPFE = AT
----- BOOM ----- SHAPE = AIRFOIL POSITION = 4" BEHIND, 10" BELOW
----- NOZZLE ----- TYPE = NA SIZE = NA ANGLE = 90 DEG

*---------- WING SPAN = 45.3 FEET----------*
LEFT BOOM LENGTH = 35.9 FEET RIGHT TIP
15 10 5 CL 5 10 15 TIP

PASS NO 3A    SPEED = 107 MPH
ALTITUDE = 9 FT LATERAL DISPL = 1 FT RIGHT OF CL WIND SPEED = 7 MPH WIND DIRECTION = 181 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 3B    SPEED = 104 MPH
ALTITUDE = 9 FT LATERAL DISPL = 1 FT RIGHT OF CL WIND SPEED = 5 MPH WIND DIRECTION = 180 DEG
LEFT 30 20 10 0 10 20 30 RIGHT

PASS NO 3C    SPEED = 112 MPH
ALTITUDE = 11 FT LATERAL DISPL = 1 FT LEFT OF CL WIND SPEED = 5 MPH WIND DIRECTION = 184 DEG
LEFT 30 20 10 0 10 20 30 RIGHT
TEST NO = 152  A/C MAKE/TYPEx, = TT

----- BOOM -----  
SHAPE = AIRFOIL  POSITION = 2.5" BEHIND; 9" BELOW

----- NOZZLE -----  
TYPE = NA  SIZE = NA  ANGLE = 180 DEG

----- WING SPAN = 44.3 FEET -----  
LEFT  BOOM LENGTH = 39.7 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  
SPEED = 110 MPH
ALTITUDE = 8 FT  LATERAL DISPL = 3 FT RIGHT OF CL
WIND SPEED = 6 MPH  WIND DIRECTION = 177 DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1B  
SPEED = 113 MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 6 MPH  WIND DIRECTION = 171 DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1C  
SPEED = 114 MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 4 MPH  WIND DIRECTION = 170 DEG
LEFT  30  20  10  0  10  20  30  RIGHT
TEST NO = 153-2    A/C MAKE/TYPE = AC

BOOM

SHAPE = RD    POSITION = 4" BEHIND; 1" ABOVE

TYPE = SMITH FAIR    SIZE = D8    ANGLE = 135 DEG

WING SPAN = 40.7 FEET

BOOM LENGTH = 37.4 FEET

LEFT     RIGHT
TIP 15 10 5  CL 5 10 15 TIP

PASS NO 2A    SPEED = 96 MPH

ALITUDE = 11 FT    LATERAL DISPL = 1 FT RIGHT OF CL

WIND SPEED = 8 MPH    WIND DIRECTION = 212 DEG

LEFT 50 20 10 0 10 20 30 RIGHT

PASS NO 2B    SPEED = 107 MPH

ALITUDE = 13 FT    LATERAL DISPL = 2 FT RIGHT OF CL

WIND SPEED = 7 MPH    WIND DIRECTION = 201 DEG

LEFT 50 20 10 0 10 20 30 RIGHT

PASS NO 2C    SPEED = 92 MPH

ALITUDE = 13 FT    LATERAL DISPL = 3 FT RIGHT OF CL

WIND SPEED = 8 MPH    WIND DIRECTION = 191 DEG

LEFT 50 20 10 0 10 20 30 RIGHT
TEST NO = 154-2  
A/C MAKE/TYPE = 6

----- BOOM ----- 
SHAPE = RD  
POSITION = 3" BEHIND; 3" BELOW

----- NOZZLE ----- 
TYPE = NA  
SIZE = 6-45  
ANGLE = 135 DEG

---------- WING SPAN = 31 FEET ----------*

LEFT  
BOOM LENGTH = 26.1 FEET

RIGHT

TIP  
15  10  5  CL  5  10  15  TIP

PASS NO 2A  
SPEED = 100 MPH

ALTITUDE = 17 FT  
LATERAL DISPL = 1 FT RIGHT OF CL

WIND SPEED = 0 MPH  
WIND DIRECTION = 176 DEG

LEFT  
30  20  10  0  10  20  30  RIGHT

PASS NO 2B  
SPEED = 99 MPH

ALTITUDE = 11 FT  
LATERAL DISPL = 1 FT RIGHT OF CL

WIND SPEED = 4 MPH  
WIND DIRECTION = 135 DEG

LEFT  
30  20  10  0  10  20  30  RIGHT

PASS NO 2C  
SPEED = 95 MPH

ALTITUDE = 11 FT  
LATERAL DISPL = 0 FT RIGHT OF CL

WIND SPEED = 5 MPH  
WIND DIRECTION = 178 DEG

LEFT  
30  20  10  0  10  20  30  RIGHT
TEST NO = 155  A/C MAKE/TYE = H
----- ROOM ----- 
SHAPE = AIRFOIL  POSITION = NA
----- NOZZLE ----- 
TYPE = NA  SIZE = NA  ANGLE = NA DEG

WING SPAN = 33 FEET
LEFT BOOM LENGTH = 31.6 FEET

PASS NO 1A  SPEED = NA MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 144 DEG

PASS NO 1B  SPEED = NA MPH
ALTITUDE = 10 FT  LATERAL DISPL = 6 FT RIGHT OF CL
WIND SPEED = 6 MPH  WIND DIRECTION = 159 DEG

PASS NO 1C  SPEED = NA MPH
ALTITUDE = 9 FT  LATERAL DISPL = 1 FT LEFT OF CL
WIND SPEED = 5 MPH  WIND DIRECTION = 164 DEG
TEST NO = 156  A/C MAKE/TYPE = T

SHAPE = AIRFOIL  POSITION = NA

TYPE = ACUMIST  SIZE = NA  ANGLE = 180 DEG

WING SPAN = 44.5 FEET

LEFT  BOOM LENGTH = 27.9 FEET  RIGHT

TIP  15  10  5  CL  5  10  15  TIP

PASS NO 1A  SPEED = 121 MPH
ALTITUDE = 10 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 8 MPH  WIND DIRECTION = 211 DEG

LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1B  SPEED = 125 MPH
ALTITUDE = NA FT  LATERAL DISPL = NA FT OF CL
WIND SPEED = 7 MPH  WIND DIRECTION = 219 DEG

LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 1C  SPEED = 130 MPH
ALTITUDE = 11 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 7 MPH  WIND DIRECTION = 175 DEG

LEFT  30  20  10  0  10  20  30  RIGHT

C-3
TEST NO = 157  A/C MAKE/TYPE = CS
SHAPe = AIRFOIL  POSITION = NA
TYPE = NA  SIZE = DI0  ANGLE = 180 DEG

*----------WING SPAN = 41.7 FEET----------*

PASS NO 1A  SPEED = 123 MPH
ALTITUDE = 8 FT  LATERAL DISPL = 1 FT RIGHT OF CL
WIND SPEED = 2 MPH  WIND DIRECTION = 176 DEG

PASS NO 1B  SPEED = 123 MPH
ALTITUDE = 8 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 4 MPH  WIND DIRECTION = 210 DEG

PASS NO 1C  SPEED = 122 MPH
ALTITUDE = 8 FT  LATERAL DISPL = 0 FT RIGHT OF CL
WIND SPEED = 8 MPH  WIND DIRECTION = 174 DEG
TEST NO = 158-2  A/C MAKE/TYPE = AC

SHAPE = RD  POSITION = 6" BEHIND

TYPE = SMITH FAIR  SIZE = D6  ANGLE = 135 DEG

WING SPAN = 34 FEET

LEFT  BOOM LENGTH = 31.3 FEET  RIGHT
TIP  15  10  5  CL  5  10  15  TIP

PASS NO 2A  SPEED = NA MPH
ALTITUDE = 7 FT  LATERAL DISPL = 3.5 FT RIGHT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 2B  SPEED = NA MPH
ALTITUDE = 9 FT  LATERAL DISPL = 3.5 FT RIGHT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT

PASS NO 2C  SPEED = NA MPH
ALTITUDE = 5 FT  LATERAL DISPL = 2.5 FT RIGHT OF CL
WIND SPEED = NA MPH  WIND DIRECTION = NA DEG
LEFT  30  20  10  0  10  20  30  RIGHT
TEST NUMBER = 1G-1
AIRCRAFT MAKE/TYPE = THRUSH
SPREADER MAKE/TYPE = VANE
GRANULAR MATERIAL = AMMONIUM NITRATE
AIRCRAFT ALTITUDE = 18 FEET
AIRCRAFT LATERAL DISPLACEMENT = 5.5 FEET TO LEFT

TEST NUMBER = 1G-2
AIRCRAFT MAKE/TYPE = THRUSH
SPREADER MAKE/TYPE = VANE
GRANULAR MATERIAL = AMMONIUM NITRATE
AIRCRAFT ALTITUDE = 16.5 FEET
AIRCRAFT LATERAL DISPLACEMENT = 1.5 FEET TO LEFT
TEST NUMBER = 16-3
AIRCRAFT MAKE/TYPE = THRUSH
SPREADER MAKE/TYPE = VANE
GRANULAR MATERIAL = AMMONIUM NITRATE
AIRCRAFT ALTITUDE = 6.5 FEET
AIRCRAFT LATERAL DISPLACEMENT = 2.3 FEET TO RIGHT

TEST NUMBER = 2G-1
AIRCRAFT MAKE/TYPE = PIPER PAWNEE
SPREADER MAKE/TYPE = VANE
GRANULAR MATERIAL = ARROWLEAF CLOVER
AIRCRAFT ALTITUDE = NA
AIRCRAFT LATERAL DISPLACEMENT = NA
TEST NUMBER = 26-5
AIRCRAFT MAKE/TYPE = PIPER PAWNEE
SPREADER MAKE/TYPE = VANE
GRANULAR MATERIAL = ARROWLEAF CLOVER WITH LIME
AIRCRAFT ALTITUDE = NA
AIRCRAFT LATERAL DISPLACEMENT = 36 FEET TO LEFT

TEST NUMBER = 36-1
AIRCRAFT MAKE/TYPE = PIPER PAWNEE
SPREADER MAKE/TYPE = VANE
GRANULAR MATERIAL = SPIKE
AIRCRAFT ALTITUDE = NA
AIRCRAFT LATERAL DISPLACEMENT = 0
TEST NUMBER = 3G-2
AIRCRAFT MAKE/TYPE = PIPER PAWNEE
SPREADER MAKE/TYPE = VANE
GRANULAR MATERIAL = SPIKE
AIRCRAFT ALTITUDE = NA
AIRCRAFT LATERAL DISPLACEMENT = 3 FEET TO RIGHT

TEST NUMBER = 3G-3
AIRCRAFT MAKE/TYPE = PIPER PAWNEE
SPREADER MAKE/TYPE = VANE
GRANULAR MATERIAL = SPIKE
AIRCRAFT ALTITUDE = NA
AIRCRAFT LATERAL DISPLACEMENT = 6 FEET TO RIGHT
TEST NUMBER = 3G-4
AIRCRAFT MAKE/TYPE = PIPER PAWNEE
SPREADER MAKE/TYPE = VANE
GRANULAR MATERIAL = SPIKE
AIRCRAFT ALTITUDE = NA
AIRCRAFT LATERAL DISPLACEMENT = 13 FEET TO RIGHT

TEST NUMBER = 3G-5
AIRCRAFT MAKE/TYPE = PIPER PAWNEE
SPREADER MAKE/TYPE = VANE
GRANULAR MATERIAL = SPIKE
AIRCRAFT ALTITUDE = NA
AIRCRAFT LATERAL DISPLACEMENT = 10 FEET TO RIGHT
TEST NUMBER = 46-2
AIRCRAFT MAKE/TYPE = CESSNA
SPREADER MAKE/TYPE = VANE
GRANULAR MATERIAL = WHEAT
AIRCRAFT ALTITUDE = NA
AIRCRAFT LATERAL DISPLACEMENT = NA

TEST NUMBER = 46-3
AIRCRAFT MAKE/TYPE = CESSNA
SPREADER MAKE/TYPE = VANE
GRANULAR MATERIAL = WHEAT
AIRCRAFT ALTITUDE = NA
AIRCRAFT LATERAL DISPLACEMENT = NA
TEST NUMBER = 46-4
AIRCRAFT MAKE/TYPE = CESSNA
SPREADER MAKE/TYPE = VANE
GRANULAR MATERIAL = WHEAT
AIRCRAFT ALTITUDE = NA
AIRCRAFT LATERAL DISPLACEMENT = NA

TEST NUMBER = 46-5
AIRCRAFT MAKE/TYPE = CESSNA
SPREADER MAKE/TYPE = VANE
GRANULAR MATERIAL = WHEAT
AIRCRAFT ALTITUDE = NA
AIRCRAFT LATERAL DISPLACEMENT = NA
TEST NUMBER = 4G-6
AIRCRAFT MAKE/TYPE = CESSNA
SPREADER MAKE/TYPE = VANE
GRANULAR MATERIAL = WHEAT
AIRCRAFT ALTITUDE = NA
AIRCRAFT LATERAL DISPLACEMENT = NA

TEST NUMBER = 4G-7
AIRCRAFT MAKE/TYPE = CESSNA
SPREADER MAKE/TYPE = VANE
GRANULAR MATERIAL = WHEAT
AIRCRAFT ALTITUDE = NA
AIRCRAFT LATERAL DISPLACEMENT = NA
TEST NUMBER = 56-1
AIRCRAFT MAKE/TYPE = AGCAT
SPREADER MAKE/TYPE = NA
GRANULAR MATERIAL = NA
AIRCRAFT AltITUDE = NA
AIRCRAFT LATERAL DISPLACEMENT = NA

TEST NUMBER = 56-2
AIRCRAFT MAKE/TYPE = AGCAT
SPREADER MAKE/TYPE = NA
GRANULAR MATERIAL = NA
AIRCRAFT AltITUDE = NA
AIRCRAFT LATERAL DISPLACEMENT = NA
TEST NUMBER = 66-1
AIRCRAFT MAKE/TYPE = PIPER PAWNEE
SPREADER MAKE/TYPE = NA
GRANULAR MATERIAL = NA
AIRCRAFT ALTITUDE = NA
AIRCRAFT LATERAL DISPLACEMENT = NA

TEST NUMBER = 66-2
AIRCRAFT MAKE/TYPE = PIPER PAWNEE
SPREADER MAKE/TYPE = NA
GRANULAR MATERIAL = NA
AIRCRAFT ALTITUDE = NA
AIRCRAFT LATERAL DISPLACEMENT = NA
TEST NUMBER = 86-1
AIRCRAFT MAKE/TYPE = IELL
SPREADER MAKE/TYPE = NA
GRANULAR MATERIAL = NA
AIRCRAFT ALTITUDE = NA
AIRCRAFT LATERAL DISPLACEMENT = NA

TEST NUMBER = 86-2
AIRCRAFT MAKE/TYPE = IELL
SPREADER MAKE/TYPE = NA
GRANULAR MATERIAL = NA
AIRCRAFT ALTITUDE = NA
AIRCRAFT LATERAL DISPLACEMENT = NA
TEST NUMBER = 9G-1
AIRCRAFT MAKE/TYPE = PIPER PAWNEE
SPREADER MAKE/TYPE = NA
GRANULAR MATERIAL = NA
AIRCRAFT ALTITUDE = NA
AIRCRAFT LATERAL DISPLACEMENT = NA

TEST NUMBER = 9G-2
AIRCRAFT MAKE/TYPE = PIPER PAWNEE
SPREADER MAKE/TYPE = NA
GRANULAR MATERIAL = NA
AIRCRAFT ALTITUDE = NA
AIRCRAFT LATERAL DISPLACEMENT = NA