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**USAAMRDL TECHNICAL REPORT 71-60**

**FLIGHT LOADS INVESTIGATION OF OH-6A HELICOPTERS  
OPERATING IN SOUTHEAST ASIA**

By

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October 1971

**EUSTIS DIRECTORATE  
U. S. ARMY AIR MOBILITY RESEARCH AND DEVELOPMENT LABORATORY  
FORT EUSTIS, VIRGINIA**

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This report has been reviewed by the Eustis Directorate, U.S. Army Air Mobility Research and Development Laboratory, and is considered to be technically sound. The data presented were obtained from oscillograph recorders installed on three U.S. Army OH-6A helicopters performing operational missions in Southeast Asia. These data indicate the missions flown and the accelerations associated with the combat deployment of this type of aircraft. The report is published as an aid in establishing mission profiles and attendant design criteria for application in the development of future aircraft.

The technical monitor for this contract was Mr. William T. Alexander, Jr., Aeromechanics Division.

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FLIGHT LOADS INVESTIGATION OF OH-6A HELICOPTERS  
OPERATING IN SOUTHEAST ASIA

Final Report

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FORT EUSTIS, VIRGINIA

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## ABSTRACT

From structural flight loads measurements on three OH-6A helicopters, 216 hours of usable multichannel flight data were recorded as the helicopters operated from bases in Southeast Asia. Data were processed and analyzed according to four flight phases, called mission segments: (1) ascent, (2) maneuver, (3) descent, and (4) steady state. Data are presented in the form of time and occurrence tables, histograms, and exceedance curves. These data indicate the time spent in the mission segments and parameter ranges; the number of peak parameter values occurring in the ranges of the given parameter during each of the mission segments, and in the ranges of one or more related parameters; and the time to reach or exceed given maneuver and gust normal load factors. The data presented were recorded between March and September 1970. The OH-6A's encountered more load factor peaks per hour but fewer  $\Delta n_z$  (incremental normal load factor) peaks above 1.0 than the heavier AH-1G's in a previous program.

## FOREWORD

Technology Incorporated, Dayton, Ohio, prepared this report to cover its efforts on a flight loads data program to collect, process, and analyze a 200-hour sample of flight data obtained from three OH-6A helicopters operating in Southeast Asia. This program was sponsored by the Eustis Directorate, U.S. Army Air Mobility Research and Development Laboratory, Fort Eustis, Virginia, under Contract DAAJ02-70-C-0026, DA Task 1F162204A14602. The project monitor for the Army was Mr. William T. Alexander.

Of the 216 hours of data that were processed, 70 were read and digitized by U.S. Army personnel at Fort Eustis, Virginia, under the direction of Mr. Louis R. Bartek. The remainder were read and digitized by Technology Incorporated. All final data processing and documentation was done by Technology Incorporated.

Technology Incorporated personnel responsible for this program were Mr. Joseph F. Braun, manager of the Systems and Electronics Department; Mr. Henry C. Pender, project manager, who directed the installation and operation of the data recording systems; Messrs. John F. Nash and Ronald I. Rockefeller, who directed the data processing; Mr. Jack C. Cornelli, who performed the computer programming; and Mr. F. Joseph Giessler, who directed the data presentation.



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LIST OF SYMBOLS

<u>Symbol</u>	<u>Definition</u>	<u>Computer Equivalent</u>
$C_T$	thrust coefficient	CT
$C_T/\sigma$	thrust coefficient ratio	CT/S
$h_d$	density altitude, feet	
$n_x$	longitudinal load factor	NX
$n_y$	lateral load factor	NY
$n_z$	normal load factor	NZ
OAT	outside air temperature, °F	
$P_a$	atmospheric static pressure, inches of mercury	
R	rotor radius, feet	
V	airspeed, feet per second or knots	
W	gross weight, pounds	
$\mu$	rotor tip speed ratio	MU
$\pi$	ratio of circumference to diameter of circle	
$\rho$	local air density, pounds per cubic foot	
$\sigma$	rotor solidity	S
$\Omega$	rotor angular velocity, radians per second	

## INTRODUCTION

For the continued study of Army helicopter operations, a multi-channel flight loads program was conducted on three OH-6A helicopters flying combat missions in the Vietnam theater from March 1970 to September 1970. During this period, 216 hours of usable in-flight data were recorded for each of 10 time-related parameters. The parameters were selected to reflect the structural loads along the three major axes in the light of various helicopter variables. As reported in References 1 through 7, similar multichannel data were previously collected in six programs on the UH-1B, CH-54A, CH-47A, and AH-1G helicopters. Of these programs, three -- one each for the UH-1B, CH-54A, and CH-47A models -- were conducted under test and training conditions, and four -- one for the CH-54A model, two for the CH-47A model, and one for the AH-1G model -- were conducted under combat conditions.

The OH-6A is an all-metal, single-engine helicopter. A single four-bladed, fully articulated main rotor provides lift, and a tail rotor provides antitorque and directional control. In addition to the presentation of a photograph and a multiview drawing of the OH-6A, Figure 1 contains a summary of the characteristics and limitations of this helicopter model. Two major configurations were observed during the recording period: the "lead ship" and the "wing ship," the former identified by a pilot and two gunners each with an M 60 machine gun, and the latter by a pilot and one gunner with an XM 27 minigun mounted on the left side.

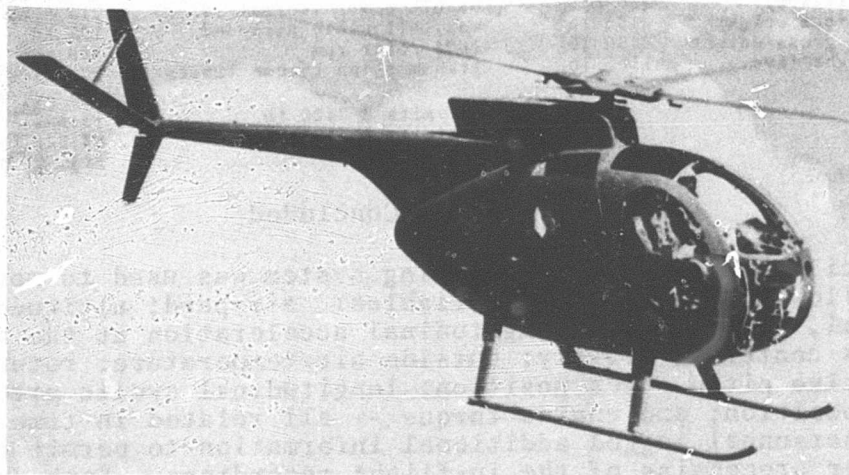
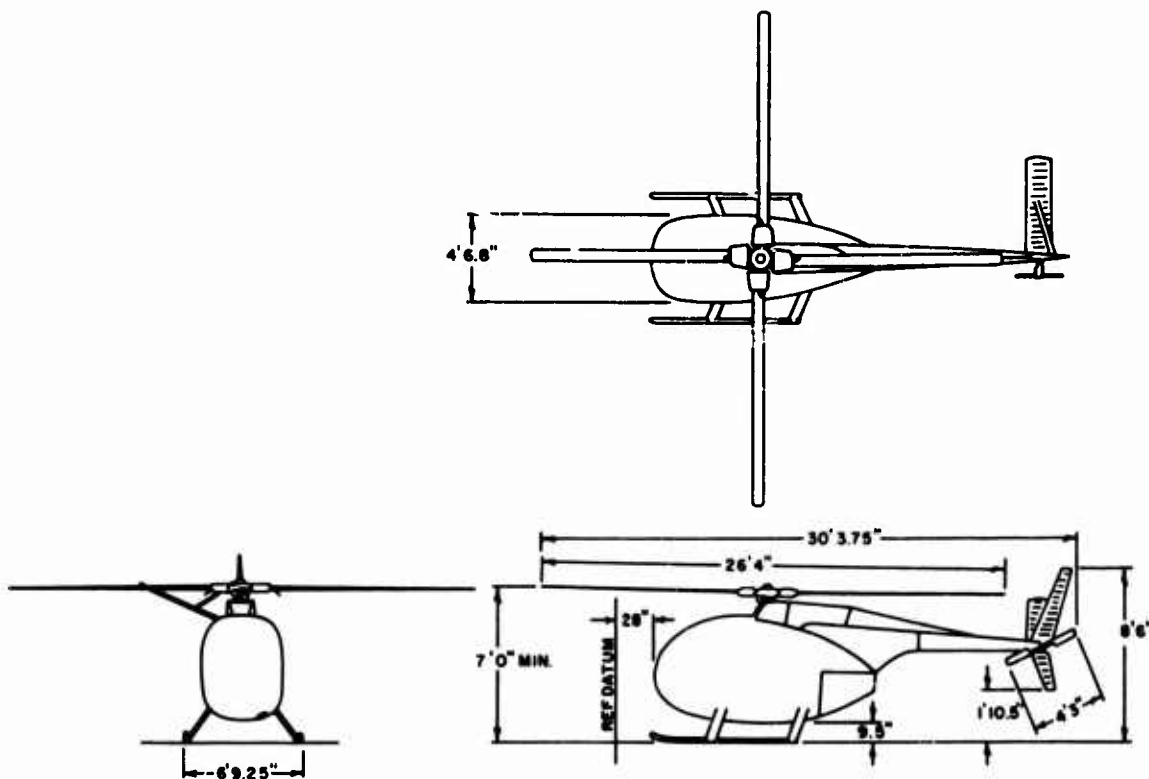


Figure 1. Photograph and Multiview Drawing of OH-6A Helicopter





Summary of OH-6A Characteristics and Limitations

Characteristics

rotor diameter	26 ft 4 in.
rotor solidity	0.0544
engine (Allison)	T63-A-5A
mission gross weight	2163 lb
alternate gross weight	2400 lb
empty weight (ave.)	1163 lb

Limitations

normal rated power	214.5 hp
design power	252.5 hp
usable power (normal rated)	214.5 hp
max. allowable airspeed	125 kn
100% rotor rpm	469 rpm
transmission torque limits	90 psi (10 sec), 100 psi (3 sec)
g limits @ 2400 lb	+2.54g, -0.5g
g limits @ 2163 lb	+2.82g, -0.5g
c.g. range	Sta. 97 to 104

Figure 1 - Concluded

The oscillograph type of recording system was used to measure the following 10 in-flight variables: airspeed; altitude; vertical, lateral, and longitudinal acceleration at the aircraft's center of gravity; outside air temperature; rotor rpm; collective pitch stick position; longitudinal cyclic pitch stick position; and engine torque -- all related in time. Field personnel logged additional information to permit the computer processing of the in-flight recordings. Such supplementary data consisted of time, fuel, and armament at take-off and landing; base pressure and temperature at takeoff; mission type; and aircraft configuration. The data processing

derived additional parameters: specifically, the instantaneous weight, the rotor tip speed ratio, and the ratio of the thrust coefficient to the rotor solidity. In addition, for the more meaningful interpretation of all parameters, the data for each flight were divided into four phases, called mission segments: (1) ascent, (2) maneuver, (3) descent, and (4) steady state.

The objective of the OH-6A program was to present comprehensive flight loads data on the current operation of this helicopter model in the combat environment of Vietnam.

This report describes the aircraft instrumentation and the recording system, details the data collection, defines the recorded and derived parameters, outlines the data processing and quality control, explains the data computations, and finally presents and analyzes the processed data. The results are presented as histograms of the percentages of time within various parameter ranges; as "exceedance" curves, that is, curves of the number of flight hours required for a parameter to reach or exceed given levels; as tables of time distributed among the coincident ranges of two or more parameters; and as tables of peak frequencies in the coincident ranges of the peaking parameter and other variables.

## AIRCRAFT INSTRUMENTATION

At the Southeast Asia facility of the Army's 7th Squadron, 1st Cavalry Division, an oscillographic recording system was initially installed in each of three OH-6A helicopters, identified by serial Nos. 67-16603, 67-16638, and 67-16389. The subsequent loss of two of these aircraft in combat necessitated the installation of similar recording systems in two additional OH-6A's (serial Nos. 67-16379 and 66-6887).

After each selected helicopter was equipped with the Class A provisions to accommodate its recording system, the components were installed as follows: a Century Model 409B oscillographic recorder to measure all 10 in-flight parameters and a Technology Incorporated Model 49776 bridge control unit to regulate the voltage signals from the various transducers were mounted on the cargo compartment floor.

To derive airspeed, a Statham Model PM96TC-5-350 (0-1 psid) pressure transducer was used to measure the dynamic pressure. To derive altitude, a Statham Model P96-15A-350 (0 to 15 psia) pressure transducer was used to measure the ambient static pressure. Both transducers were mounted behind the pilot's instrument panel and connected to the aircraft's pitot-static system.

For the three linear acceleration measurements, a B&F Model LF-5-15-350 ( $\pm 5g$ ) accelerometer was used to sense vertical acceleration, a B&F Model LF-3-8-350 ( $\pm 3g$ ) accelerometer was used to sense lateral acceleration, and a Statham Model AJ-17-2-350 ( $\pm 2g$ ) accelerometer was used to sense the longitudinal acceleration.

A frequency-to-voltage converter and associated circuitry were incorporated in the recording system to measure the rotor rpm by sensing the frequency of the rotor tachometer generator. The output signal from the generator was acquired from a terminal board behind the pilot's instrument panel.

A Minco Model 56B resistance thermal ribbon, used to measure the outside air temperature, was installed on the bottom of the left outside fuselage skin.

Two Lockheed Electronics Co. Model WR-8-15B position transducers were used to sense the stick positions of the collective pitch and the longitudinal cyclic pitch controls. The collective transducer was installed under the left seat control stick and attached to the stick. The cyclic transducer was installed below the horizontal control panel and attached to the rod connecting the two sticks.

To measure the engine torque pressure, a Viatron Model PTB103 (0 to 100 psig) pressure transducer was installed behind the instrument console and then connected in parallel with the helicopter's torque pressure transmitter.

The block diagram in Figure 2 illustrates the functional integration of the components comprising the recording system.

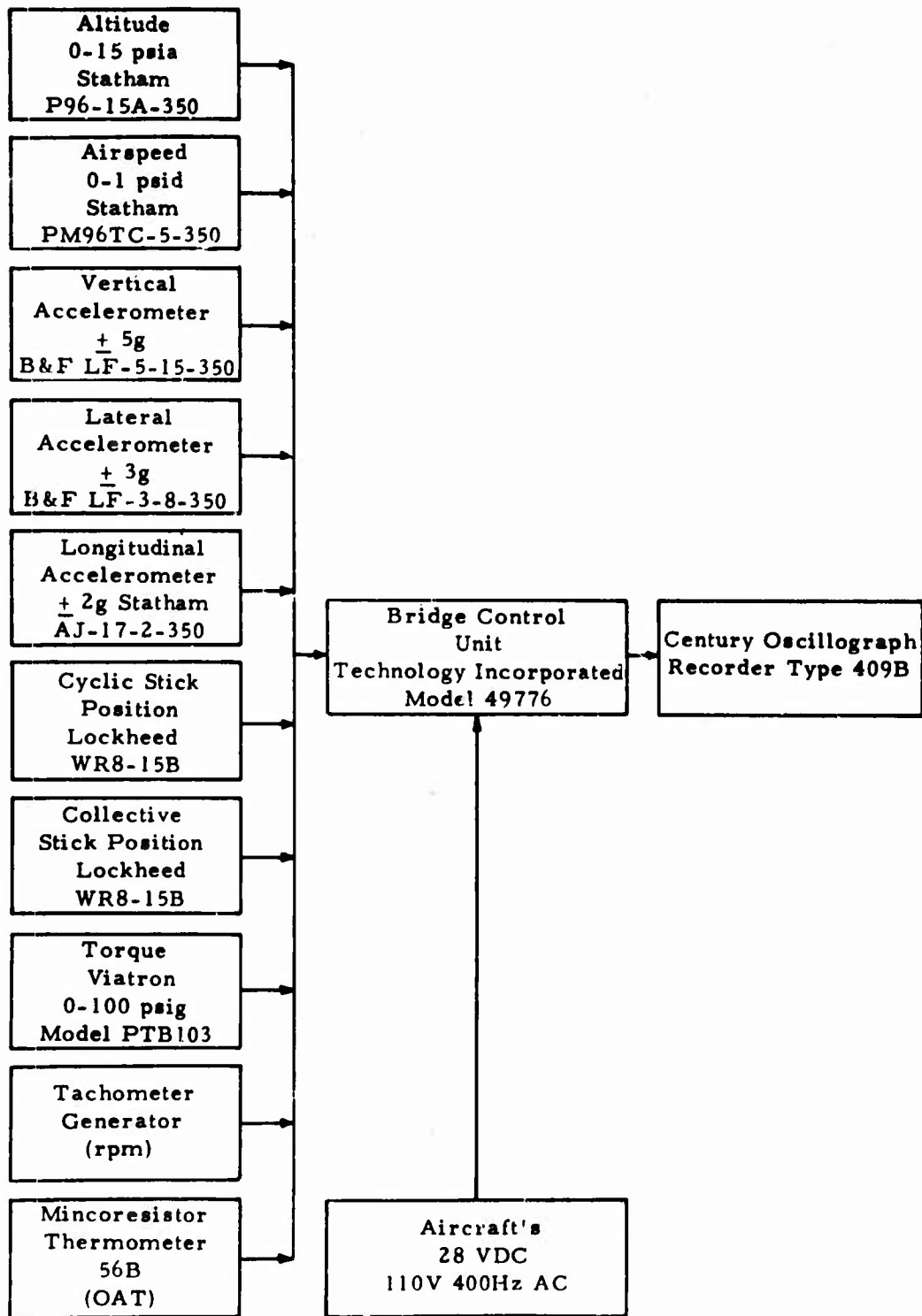


Figure 2. Block Diagram of OH-6A Instrumentation System.

## OSCILLOGRAPHIC RECORDER

The Century Model 409B recorder with 14 data channels, each capable of recording a dynamic parameter on a 3-5/8-inch-wide photo-sensitive paper, was used in this program because of its inherent design to withstand severe shock and vibration and extreme environmental conditions. In this program, 10 channels were used to record the in-flight variables. Of the remaining four channels, one was used to monitor the voltage supply, another was used to delineate a time pattern reflecting a 1-minute cycling, and the last two were used to trace static lines for measurement references.

The recording system operated from two types of power supplied by the helicopter: 110 v, 400 Hz ac, which after rectification was used in the special frequency-to-voltage circuit to measure the rotor rpm, and 28 vdc, which was used for all other operations. The recording system was normally operative when the helicopter power was on. However, the pilot could stop the recorder with a switch on his instrument panel when extensive ground operation was anticipated and then restart it upon the resumption of flight.

## DATA COLLECTION

During the data collection period from 18 March 1970 to 30 September 1970, 310 hours of in-flight data were recorded. Of these hours, 234 were usable and 216 were processed for the data presentation in this report. Some of the discrepancies limiting the hours of usable data were erratic trace deflections, no trace deflection, insufficient trace deflection, malfunction of the oscillogram drive motor, bad galvanometer, and no supplemental flight data. Upon developing the oscillogram and observing such discrepancies, the field technician was aware of the cause of most of the malfunctions and took remedial action as soon as possible.

After each recorded flight, the field technician, aided by the pilot, filled out a special form to log the supplemental data needed to process the oscillogram data. Such additional information included the flight date; helicopter configuration; mission type; airspeed and rotor rpm at check points; takeoff elevation, barometric pressure, and temperature; and the base site, time, fuel weight, and armament weight for both takeoff and landing. In addition, the field technician logged the serial number for each transducer so that the calibration data could be correlated with the recorded data during the final data processing.

## DATA DEFINITIONS

### RECORDED PARAMETERS

The 10 in-flight parameters recorded on the paper oscillograms against a time base consisted of (1) altitude, (2) airspeed, (3) outside air temperature, (4) vertical acceleration, (5) lateral acceleration, (6) longitudinal acceleration, (7) rotor rpm, (8) engine torque pressure, (9) longitudinal cyclic pitch control stick position, and (10) collective pitch control stick position. For each of these parameters and the computed parameters presented in the next paragraph, Table I lists the ranges selected to study the parameter relationships most effectively.

By assuming a standard atmosphere prevailing during the data recording and by using the measured outside air temperature, the altitude and airspeed trace measurements, proportional to the static pressure and the pitot-static pressure differential, respectively, were converted from pressure units to density altitude and indicated airspeed units. Of the remaining parameters, c.g. accelerations are represented as load factors, engine torques as torque pressures, and the control stick positions as percentages of full deflection with both the full-forward position of the longitudinal cyclic pitch stick and the full-down position of the collective pitch stick being zero percent.

### COMPUTED PARAMETERS

From the fuel and armament weights at takeoff and landing, as logged on the supplemental data sheets, the gross weight was computed for the start and end of each flight. A constant rate of fuel consumption was assumed to obtain an average weight-loss rate that was used to compute the instantaneous gross weight. Weight losses because of armament drops were introduced at the times noted on the supplemental data sheets.

For each data reading point, two derived parameters were added: (1) the rotor tip speed ratio, and (2) the ratio of the thrust coefficient to the rotor solidity.

The rotor tip speed ratio,  $\mu$ , was computed by

$$\mu = \frac{V}{\Omega R}$$

where  $V$  = airspeed, ft/sec  
 $\Omega$  = rotor angular velocity, rad/sec  
 $R$  = rotor radius, 26.33 ft



**TABLE I. PARAMETER RANGES WITH CODE IDENTIFICATION**

<u>Recorded Parameters</u>			
<u><math>n_x</math> and <math>n_y</math> (g)</u>	<u>Airspeed (kn)</u>	<u>Altitude(ft)</u>	<u><math>n_z</math> (g)</u>
1. <-0.40	1. <40	1. <1000	1. <0.2
2. -0.40 to -0.35	2. 40 to 60	2. 1000 to 2000	2. 0.2 to 0.4
3. -0.35 to -0.30	3. 60 to 70	3. 2000 to 4000	3. 0.4 to 0.5
4. -0.30 to -0.25	4. 70 to 75	4. 4000 to 8000	4. 0.5 to 0.6
5. -0.25 to -0.20	5. 75 to 80	5. >8000	5. 0.6 to 0.7
6. -0.20 to -0.15	6. 80 to 85		6. 0.7 to 0.8
7. -0.15 to -0.10	7. 85 to 90		7. 0.8 to 1.2
8. -0.10 to 0.10	8. 90 to 95		8. 1.2 to 1.3
9. 0.10 to 0.15	9. 95 to 100	<u>RPM</u>	9. 1.3 to 1.4
10. 0.15 to 0.20	10. 100 to 105	1. <440	10. 1.4 to 1.5
11. 0.20 to 0.25	11. 105 to 110	2. 440 to 460	11. 1.5 to 1.6
12. 0.25 to 0.30	12. 110 to 115	3. 460 to 475	12. 1.6 to 1.8
13. 0.30 to 0.35	13. 115 to 120	4. 475 to 480	13. 1.8 to 2.0
14. 0.35 to 0.40	14. 120 to 124	5. 480 to 485	14. 2.0 to 2.2
15. >0.40	15. >124	6. 485 to 490	15. 2.2 to 2.4
		7. >490	16. 2.4 to 2.6
			17. >2.6
<u>Collective or Cyclic Steady Stick Position (% of full deflection)</u>	<u>Collective or Cyclic Stick Position Peaks (% of full deflection change)</u>	<u>OAT (°F)</u>	
1. <10	1. <-40	1. <0	
2. 10 to 20	2. -40 to -30	2. 0 to 10	
3. 20 to 30	3. -30 to -20	3. 10 to 20	<u>Torque (psi)</u>
4. 30 to 40	4. -20 to -10	4. 20 to 30	1. <20
5. 40 to 50	5. -10 to 10	5. 30 to 40	2. 20 to 30
6. 50 to 60	6. 10 to 20	6. 40 to 50	3. 30 to 40
7. 60 to 70	7. 20 to 30	7. 50 to 60	4. 40 to 50
8. 70 to 80	8. 30 to 40	8. 60 to 70	5. 50 to 63.5
9. 80 to 90	9. >40	9. 70 to 80	6. 63.5 to 75
10. >90		10. 80 to 90	7. 75 to 80
		11. >90	8. >
<u>Computed Parameters</u>			
<u><math>n_{z0}</math> (g)</u>	<u>Climb Rate(ft/min)</u>	<u>Rotor Tip Speed Ratio, <math>\mu</math></u>	<u>Gross Weight(lb)</u>
1. <0.2	1. <-2100	1. <0.0	<2000
2. 0.2 to 0.4	2. -2100 to -1800	2. 0.00 to 0.05	2. 2000 to 2200
3. 0.4 to 0.5	3. -1800 to -1500	3. 0.05 to 0.10	3. 2200 to 2400
4. 0.5 to 0.6	4. -1500 to -1200	4. 0.10 to 0.15	4. 2400 to 2600
5. 0.6 to 0.7	5. -1200 to -900	5. 0.15 to 0.20	5. >2600
6. 0.7 to 0.8	6. -900 to -600	6. 0.20 to 0.25	
7. 0.8 to 1.2	7. -600 to -300	7. 0.25 to 0.30	<u>Airspeed Accel. (ft/sec<sup>2</sup>)</u>
8. 1.2 to 1.3	8. -300 to 300	8. 0.30 to 0.35	1. <-15
9. 1.3 to 1.4	9. 300 to 600	9. >0.35	2. -15 to -12
10. 1.4 to 1.5	10. 600 to 900		3. -12 to -9
11. 1.5 to 1.6	11. 900 to 1200	<u>Thrust Coef./Rotor Solidity, <math>C_T/\sigma</math></u>	4. -9 to -6
12. 1.6 to 1.8	12. 1200 to 1500	1. <0.08	5. -6 to -3
13. 1.8 to 2.0	13. 1500 to 1800	2. 0.08 to 0.10	6. -3 to 3
14. 2.0 to 2.2	14. 1800 to 2100	3. 0.10 to 0.12	7. 3 to 6
15. 2.2 to 2.4	15. >2100	4. 0.12 to 0.14	8. 6 to 9
16. 2.4 to 2.6		5. >0.14	9. 9 to 12
17. >2.6			10. 12 to 15
			11. >15

The ratio of thrust coefficient to the rotor solidity, that is,  $C_T/\sigma$ , was computed by

$$C_T/\sigma = \frac{W}{\rho \pi^2 (\Omega R)^2 \sigma}$$

where  $C_T$  = thrust coefficient  
 $W$  = gross weight, lb (instantaneous)  
 $\rho$  = air density at altitude, slugs/ft<sup>3</sup>  
 $\sigma$  = rotor solidity = 0.0544

The normal load factor,  $n_z$ , for each vertical acceleration peak was measured directly from the oscillogram trace. However, to present load factors for positive and negative peaks conveniently, an incremental normal load factor,  $\Delta n_z$ , was derived from each  $n_z$  value by using the relationship

$$\Delta n_z = n_z - 1.0$$

For each of the vertical acceleration peaks, the equivalent normal load factor,  $n_{ze}$ , was computed according to the relation

$$n_{ze} = n_z \frac{W_i}{W_D}$$

where  $n_z$  = normal load factor peak  
 $W_i$  = instantaneous weight at time of acceleration peak  
 $W_D$  = design gross weight, 2400 lb

Since the pitot-static position error was judged to be negligible in the range of interest, only indicated airspeeds were considered. Rotor rpm and outside air temperature were computed by applying linear calibrations to the trace measurements. With the displacements of the stick position traces representing the deflections of the longitudinal cyclic stick from the full-forward position and the deflections of the collective stick from the full-down position, the respective stick positions were computed from the trace measurements in units of percent of full deflection. Based on the average slope of pressure altitude derived from the static pressure trace, the rate of climb was computed continuously during each segment. At the same time that the rate of climb was computed, the "longitudinal acceleration," or rate of change of airspeed, was derived from the average slope of the airspeed trace. Engine torque was calibrated in units of psi as taken from the cockpit indicator.

The following equation (see Reference 8) was used to compute density altitude,  $h_d$ , since this parameter is normally used in describing helicopter performance:

$$h_d = 145,300 \left[ 1 - \left( \frac{518.4 P_a}{29.92(OAT + 460)} \right)^{0.235} \right]$$

where  $P_a$  = static pressure, inches of mercury  
 $OAT$  = outside air temperature, °F

### MISSION SEGMENTS

For a more meaningful analysis of helicopter performance and loads, the data for each flight were separated into four mission segments: (1) ascent, (2) maneuver, (3) descent, and (4) steady state. The first three segments are the transient, or unsteady, regimes of flight and were distinguished from the steady-state segment by the variation in the stick position, airspeed, and altitude traces. The segments were identified and defined as follows: Ascent included both the takeoff and climb to the initial cruise altitude and all other unsteady ascents to other altitudes; maneuver included all weapons passes and those altitude changes not appearing in ascent or descent; descent included the unsteady part of flare and landing and all other unsteady descents; and steady state included cruise, hover, steady ascent (after the initial climb), and steady descent. Flare and landing initiated from hover was included in steady state. Such steady-state parts were evidenced by minimal fluctuation of the stick position traces about mean values and the constancy or smooth change of the airspeed and altitude traces.

## DATA PROCESSING

### DATA EDITING

Each oscillogram, or record, was examined by the data processing editors for evidence of any instrumentation anomaly such as a missing trace and improper sensitivity. Any record discovered as faulty was classified as malfunction data and was not processed. The editors then timed all acceptable records and identified the bounds for the four mission segments in each flight.

After demarcating the flights into mission segments, the editors marked the traces to govern the data reading. The vertical acceleration trace was marked wherever a peak met the following two conditions: (1) the peak fell outside prescribed threshold levels ( $\pm 0.2g$  about the  $1.0g$  mean), and (2) the peak had a rise and fall (or fall and rise) that were each 50 percent of the primary peak value or  $0.2g$ , whichever was greater. Although the prescribed thresholds were  $0.8$  and  $1.2g$ , the editors used levels of  $0.84$  and  $1.16g$  to ensure the inclusion of all valid peaks. However, any of the peaks read within the fixed threshold levels of  $0.8$  and  $1.2g$  were eliminated during the computer processing. In addition, the editors identified each selected peak as being maneuver- or gust-induced. To determine whether a peak was induced by a maneuver or a gust, the editors noted the behavior of the stick position traces. Whenever the peak was the result of maneuvering, one or both of the stick traces would always deflect just before and in the same sense as the peak. Ascertaining the gust-induced peaks required either that both stick position traces be steady or that any movement of these traces just before the peak be in the sense opposite that of the peak. Because of the very high activity of the control sticks, only a few gust peaks were identified.

The editors marked primary peaks on the lateral and longitudinal acceleration traces wherever they deflected outside the prescribed threshold of  $\pm 0.1g$ . These peaks were not identified as being maneuver- or gust-induced. As before, to ensure inclusion of all valid peaks, the editors used levels of  $\pm 0.097g$  in lieu of the  $\pm 0.1g$ . Again, however, any peaks read within the prescribed threshold of  $\pm 0.1g$  were eliminated during the computer processing.

In treating the two stick position traces, the editors marked those peaks whose rise or fall was 10 percent of the full stick travel and at least 10 percent from the normal value. Each normal value depended on the mission segment. For the steady-state mission segment, the normal values were the

steady values of the stick positions just before and after the peak. For the three transient mission segments (where no "steady" stick positions prevailed), an arbitrary set of normal values was chosen to approximate the stick positions during hover. The selected values are listed by aircraft serial number in Table II.

TABLE II. CONTROL STICK NORMAL VALUES USED DURING TRANSIENT MISSION SEGMENTS

Aircraft Serial No.	Longitudinal Cyclic Normal (%)	Collective Normal (%)
66-7887	83.8	54.0
67-16379	78.9	55.0
67-16389	82.2	46.9
67-16603	76.6	48.6

At the peaks of vertical acceleration,  $n_z$ , the values of  $n_z$ , longitudinal acceleration,  $n_x$ , and lateral acceleration,  $n_y$ , were read. At the peaks of both  $n_x$  and  $n_y$ , the values of  $n_x$ ,  $n_y$ ,  $n_z$ , and cyclic stick position were read. The traces for the other parameters--airspeed, altitude, rpm, torque, and outside air temperature--were marked for measurement at sufficient points to permit an adequate representation of the parameters both at peaks and during time intervals.

The peak values of the three linear accelerations were measured from normal positions of the respective traces. For  $n_x$ ,  $n_y$ , and  $n_z$ , the normal positions were defined when the helicopter was in a cruise condition. The positive sense of  $n_x$  is acceleration forward, and the positive sense of  $n_y$  is acceleration to the right.

#### DATA READING AND QUALITY CONTROL

All data points selected during the editing were measured on semiautomatic oscillogram readers which transcribed the measurements directly to punched cards. When all data were extracted from a flight, a printout of the cards was given to the quality control personnel for preliminary data checking. Using standard quality control techniques, these personnel manually remeasured random points comprising an adequate sample and compared the measurements with those produced by the semiautomatic readers. The differences obtained between the two sets of readings were used to establish the mean and standard deviations as a control of the desired reading accuracy. The flights whose measurements did not meet the accuracy standard

so established were reread by the semiautomatic readers. In addition to obtaining accurate values, this procedure ensured a uniform interpretation and measurement of the traces.

When all data had been processed, the mean and standard deviations were calculated for the entire data sample. Assuming a normal distribution of reading errors, 99.7 percent of the readings should be within three standard deviations of the true values. Based on average calibration values, Table III shows the three-standard-deviation variation for each parameter.

TABLE III. DATA READING VARIATIONS BY PARAMETER	
<u>Parameter</u>	<u>3<math>\sigma</math> Variation</u>
Altitude	$\pm 160$ ft (at 2000 ft)
Airspeed	$\pm 1.1$ kn (at 100 kn)
$n_x$	$\pm 0.025g$
$n_y$	$\pm 0.028g$
$n_z$	$\pm 0.023g$
OAT	$\pm 0.77^\circ F$
Rotor rpm	$\pm 5.9$ rpm
Engine Torque	$\pm 1.6$ psi
Collective Pitch	$\pm 1.8\%$
Cyclic Pitch	$\pm 2.6\%$

## DATA PRESENTATION

The data presented in this report consist of two types of figures and two types of tables. The two graphic types are histograms of the percentage of time within various parameter ranges and plots of the time in hours to reach or exceed given levels of the incremental normal load factor,  $\Delta n_z$ . For convenience, these plots have been called "exceedance curves." The two tabular types are flight time distributed among the coincident ranges of two or more parameters, and frequencies of acceleration and control stick position peaks also distributed among the coincident ranges of other variables.

### DISCUSSION OF FIGURES

Figures 3 through 11 present the histograms, and Figures 12 through 16 present the exceedance curves.

The distribution of the time among the four mission segments is shown in Figure 3. As seen here, the maneuver segment accounts for 51 percent of the time; the ascent, descent, and steady-state segments have 12, 12, and 25 percent, respectively.

Figure 4 shows the time in each of the gross weight ranges distributed among the mission segments. Except for the lowest and highest weight ranges where the data hours are too small to yield meaningful results, about half of the time (43 to 60%) is in the maneuver segment and about a quarter of the time (23 to 28%) is in the steady-state segment.

Figure 5 shows the time in each mission segment distributed among the gross weight ranges. In summary, 53 percent of the ascent time is at weights above 2400 pounds, 63 percent of the maneuver time is at weights between 2200 and 2400 pounds, 80 percent of the descent time is below 2400 pounds, and 83 percent of the steady-state time is at weights above 2200 pounds.

Figure 6 presents the time in each mission segment distributed among the rotor rpm ranges. As apparent, the distributions are similar to one another, with 40 to 46 percent of the time in the 480- to 485-rpm range. The time in the ranges above 485 rpm averages about 57 percent of that in ranges below 480 rpm.

The distribution of mission segment time among altitude ranges is shown in Figure 7. Regardless of the segment, nearly 80 percent of the time is in the altitude range 2,000 to 4,000 feet. Except for some negligible times above 8,000 feet in ascent and descent, the observed ceiling was 8,000 feet.

The distribution of mission segment time among outside air temperature ranges given in Figure 8 shows no time below 60°F and over 80 percent of the time above 80°F.

Figure 9 shows the distribution of mission segment time among the rate-of-climb ranges. Each of the three transient segments (ascent, maneuver, and descent) has 50 to 60 percent of its flight time in the range -300 to +300 feet per minute. The ascent segment has 45 percent of its time at climbs above +300 feet per minute and a negligible amount above +2100 feet per minute. The maneuver segment shows a balanced distribution between positive and negative climb rates. The descent segment shows 43 percent of its time at descents below -300 feet per minute. The times below -300 feet per minute for ascent and above +300 feet per minute for descent were recorded during short periods of opposite motion while the aircraft were generally ascending or descending. The steady-state segment has 86 percent of its time at rates between -300 and +300 feet per minute.

The distribution of mission segment time in engine torque ranges is shown in Figure 10. For the ascent and steady-state segments, nearly 70 percent of the time is in the range between 50 and 63.5 psi and over 95 percent of the time is between 40 and 75 psi. For the maneuver segment, the time is distributed over a wider range of torques but is still highest in the 50- to 63.5-psi range. The descent segment has more time at the lower torque values, with 15 percent below 30 psi.

Figure 11 presents distributions of mission segment time in the airspeed ranges. For ascent, the times for airspeeds between 40 and 95 knots are generally evenly distributed, with some time at the higher airspeeds up to 120 knots. In the maneuver segment, almost 70 percent of the time is at airspeeds below 60 knots, and the rest is distributed from 60 to 120 knots. For descent, most of the time is between 85 and 110 knots, with some time above 124 knots. The time in the steady-state segment is generally between 85 and 110 knots.

Exceedances of positive and negative incremental maneuver normal load factor ( $\Delta n_z$ ) levels are presented in Figure 12 for each mission segment and for the composite of all mission segments. The exceedances for the maneuver mission segment are the most severe, with 100 peaks per hour greater than 0.2g and one peak above 1.0g every 6 hours. In all mission segments, the negative factors are much less frequent and lower in amplitude. The positive  $\Delta n_z$  exceedances for ascent and descent indicate that about 30 peaks above 0.2g were encountered during each of these mission segments. The negative  $\Delta n_z$ 's for these mission segments are also less severe than the positive  $\Delta n_z$ 's,



with a frequency of about 5 per hour above 0.2g. The exceedances in the steady-state segment indicate that there was little activity during this segment. Since more than half of the total flight time is in the maneuver segment, the curves for the composite data are similar to those for this mission segment.

The effect of gross weight on maneuver  $n_z$  exceedances is shown in Figure 13. As would be expected, the  $n_z$  frequency at the higher load factors decreases as gross weight increases. At the lower load factors, however, the highest frequency is in the middle weight range, 2200 to 2400 pounds.

A plot of  $n_z$  peak frequencies on a tip speed ratio versus  $n_z$  grid is presented in Figure 14. The extreme load factors are at  $\mu$  values of about 0.20.

Representing the composite of all data, Figure 15 presents the hours for gust acceleration peaks to reach or exceed  $\Delta n_z$  levels. Both the frequency and the amplitude of the gust  $\Delta n_z$ 's are considerably lower than the maneuver ones.

Incremental equivalent normal load factor ( $\Delta n_{ze}$ ) exceedance curves are shown in Figure 16 for each mission segment and for the composite of all mission segments. The composite  $\Delta n_{ze}$  curves in this figure differ little from the composite  $n_z$  curves in Figure 12 because the average of the gross weights during the recorded flights was roughly equal to the 2400-pound design weight. For the mission segments, the severity of the positive  $\Delta n_{ze}$ 's is either less than or about equal to that of the corresponding  $\Delta n_z$ 's, depending on the weights of the segment. The negative  $\Delta n_{ze}$ 's in general appear more severe than the corresponding  $\Delta n_z$ 's because at the lower gross weights  $n_{ze}$  becomes more negative than  $n_z$ . Consequently, some of the negative  $n_z$  peaks with values above 0.8g (within threshold) have  $n_{ze}$  values below 0.8g and  $\Delta n_{ze}$  values below -0.2g (outside threshold). As a result, the negative  $\Delta n_{ze}$ 's have a much higher frequency than the negative  $\Delta n_z$ 's.

Figure 17 includes a plot of  $\Delta n_{ze}$  frequencies in ranges of  $n_{ze}$  versus tip speed ratio. The results are similar to those for  $\Delta n_z$  in Figure 14. The same frequencies in ranges of  $n_{ze}$  versus indicated airspeed are plotted in Figure 18.

#### DISCUSSION OF TABLES

Tables IV through XL contain the final computer printouts of the processed OH-6A data. All times shown were rounded to the nearest tenth of a minute. Since in each subtable the total under the time column was computed and then rounded, a total

may not agree with the sum of the rounded times in each line. Times between 0 and 0.05 minute were printed as "0.0", and times equal to zero were printed as "0.". Tables having neither points nor time were not printed.

Table headings are arranged so that the first-mentioned variable refers to the horizontal ranges at the top of the table and the second-mentioned variable refers to the vertical ranges at the left of the table. Where a third or a fourth variable is given, it is followed by its range in the heading. As an example, the heading "MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 2000 BY MISSION SEG. ASCENT" indicates the time spent in coincident ranges of altitude and airspeed at a weight between 2000 and 2200 pounds during the ascent mission segment. All printed range values are the lower limits.

The flight times are distributed in the coincident ranges of the various parameters in Tables IV through VIII.

For the steady-state mission segment, Tables IX through XII present the frequencies of peaks of the longitudinal cyclic control stick position in the coincident ranges of steady cyclic stick position (given in percentages of the full deflection) and of the peaks (given in percentage deviations from the steady position percentages). For example, see Table IX. In the second subtable where the collective steady stick position is 40 percent, the "7" in the column headed by "70" and in the row introduced by "-20" represents that while the cyclic steady position was between 70 and 80 percent, seven cyclic peaks deviated -20 to -10 percent from the steady position; similarly, the "5" in the same column but in the row introduced by "10" represents that while the cyclic steady position was between 70 and 80 percent, five cyclic peaks deviated 10 to 20 percent from the steady position. In addition, each of these tables is broken down into the coincident ranges of a third parameter: the steady position of the collective stick position (also given in percentages of the full deflection) for Table IX, altitude for Table X, airspeed for Table XI, and rotor rpm for Table XII. Tables XIII through XV also present frequencies of the same type of peaks. In the latter tables, the frequencies are distributed in ranges of airspeed acceleration, rotor rpm, and airspeed, respectively, versus the ranges of the peaks (again given in percentage deviations from the steady position percentages). Each of the latter tables is broken down by the transient mission segments (ascent, maneuver, and descent).

With a format and order corresponding to those in Tables IX through XII, Tables XVI through XXII present similar data for the frequencies of peaks of the collective stick position.

The frequency of gust  $n_z$  peaks in the coincident ranges of  $n_z$  and  $\mu$  and in the coincident ranges of  $n_z$  and airspeed are presented in Tables XXIII and XXIV, respectively. Table XXIII has mission segment, altitude, and  $C_T/\sigma$  breakdowns, and Table XXIV has weight, altitude, and mission segment breakdowns. Maneuver  $n_z$  peaks are presented in similar fashion in Tables XXV and XXVI.

Tables XXVII through XXIX present frequencies of  $n_z$  peaks in  $n_z$  ranges versus airspeed ranges by weight, versus airspeed ranges by altitude, and versus longitudinal cyclic stick deflection ranges by mission segment, respectively. Tables XXX through XXXII present frequencies of  $n_y$  peaks in the same manner.

Tables XXXIII through XXXVIII present frequencies of  $x_n$ ,  $n_y$ , and  $n_z$  peaks in the coincident ranges of two of these parameters in various combinations.

Finally, Table XXXIX presents frequencies of  $n_{ze}$  in  $n_{ze}$  versus tip speed ratio ranges with altitude and mission segment breakdowns, and Table XL presents these frequencies in  $n_{ze}$  versus airspeed ranges with the same breakdowns.

### SUMMARY AND CONCLUSIONS

Since the 216 hours of data presented in this report define the OH-6A operation in the combat environment of Vietnam, they may be used to represent a similar environment for all light observation helicopters. The OH-6A's in this program encountered more load factor peaks per hour but fewer  $\Delta n_z$  peaks above 1.0 than the heavier AH-1G's in a previous program (Reference 6).

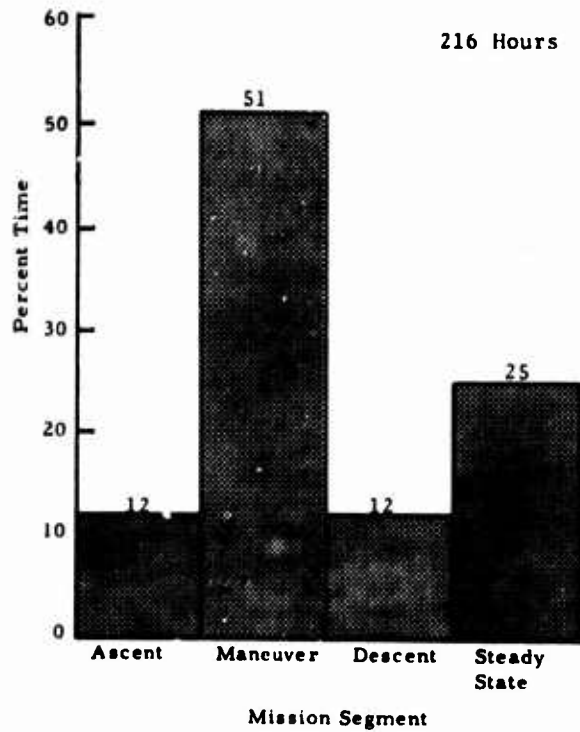
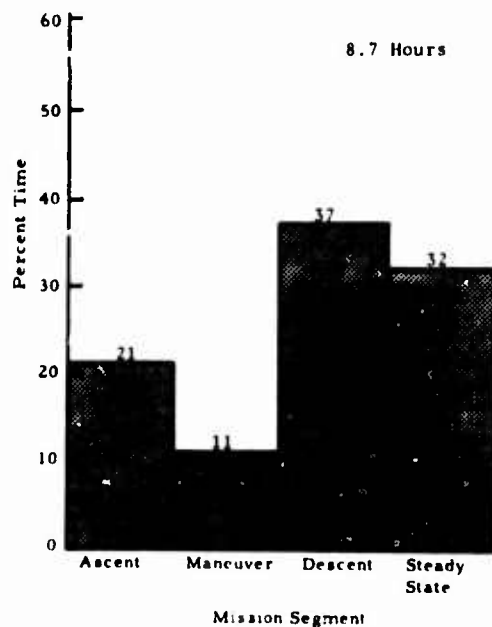
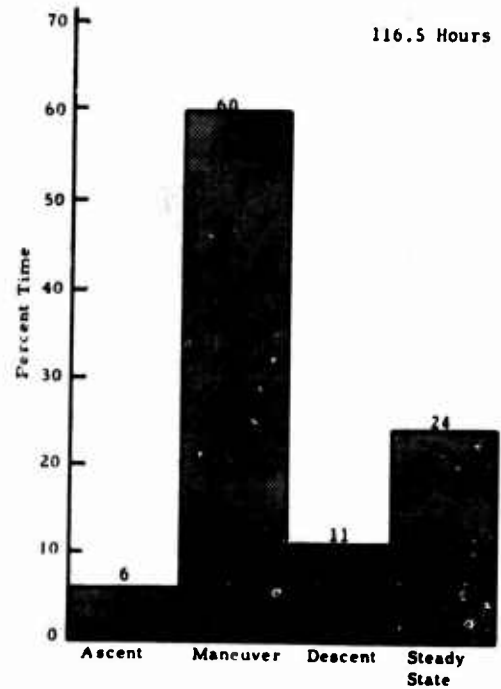
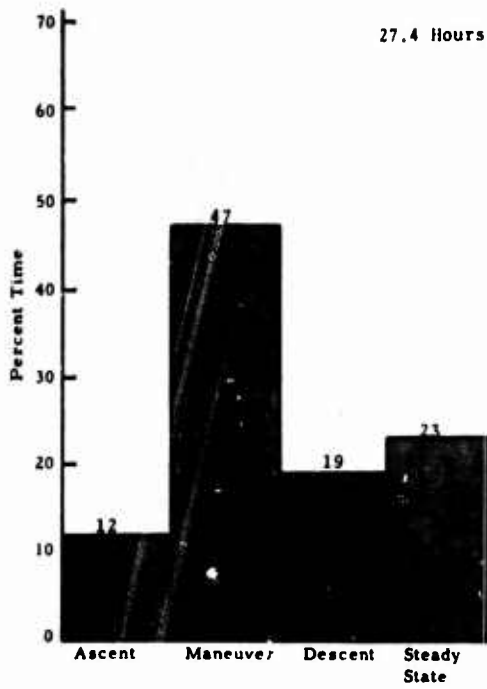


Figure 3. Percentage of Time in Each Mission Segment.



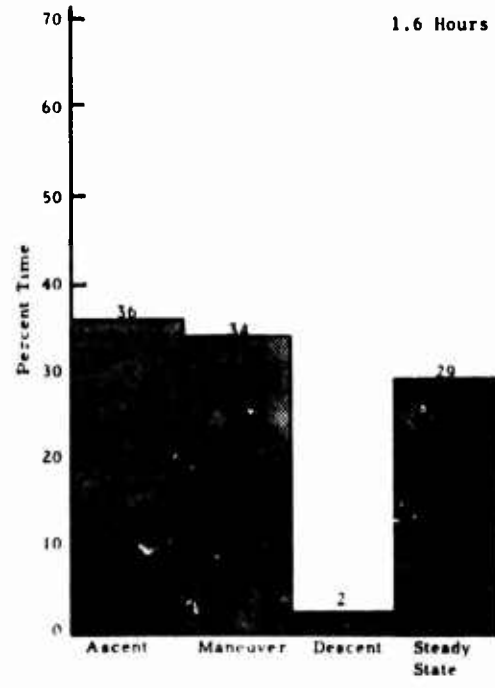
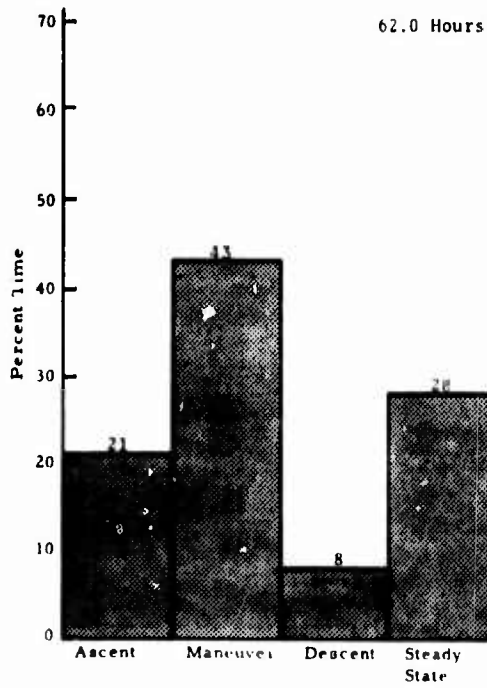
a. Below 2000 lb

Figure 4. Flight Time in Each Gross Weight Range Broken Down by Percentage of Time in Each Mission Segment.



b. 2000 to 2200 lb

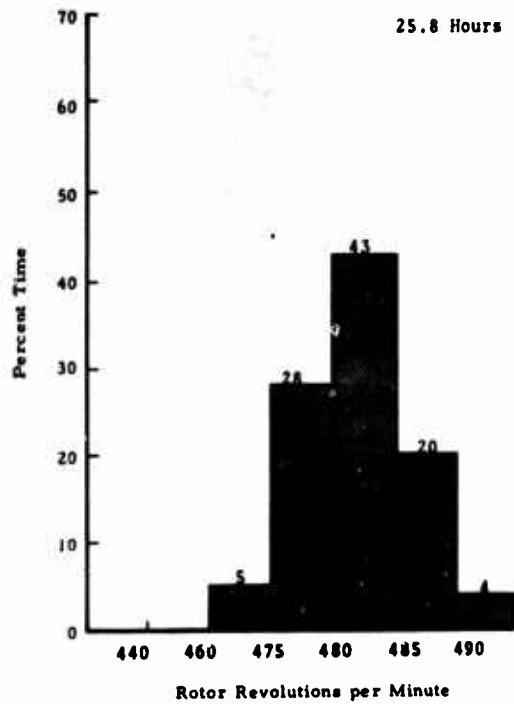
c. 2200 to 2400 lb



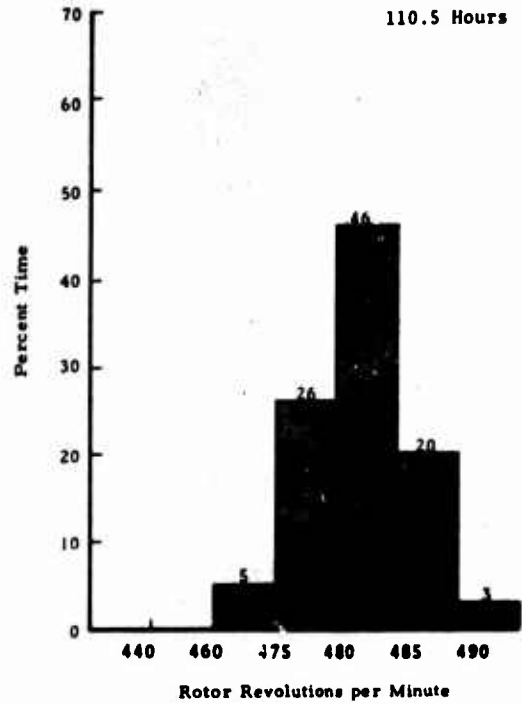
d. 2400 to 2600 lb

e. Above 2600 lb

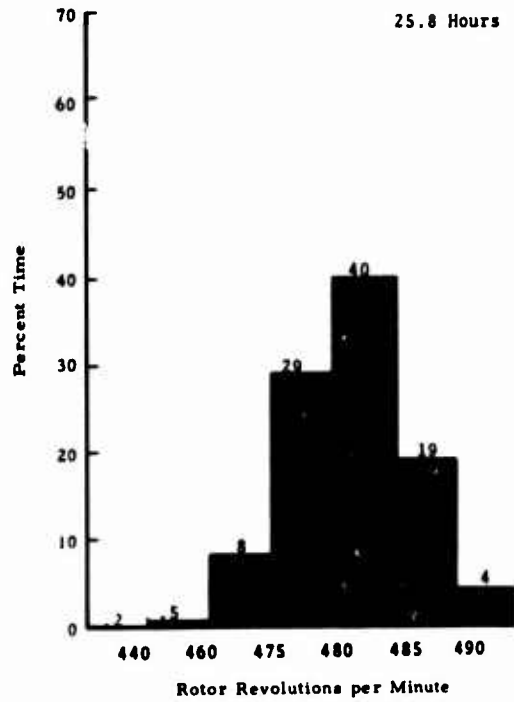
Figure 4. Concluded



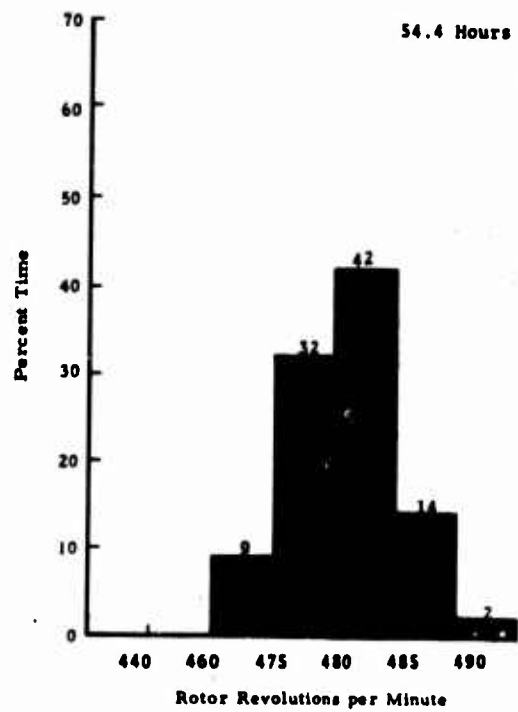
a. Ascent



b. Maneuver

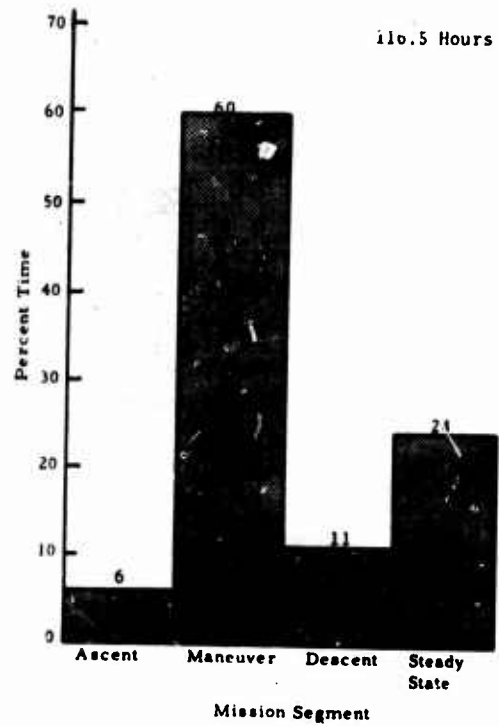


c. Descent



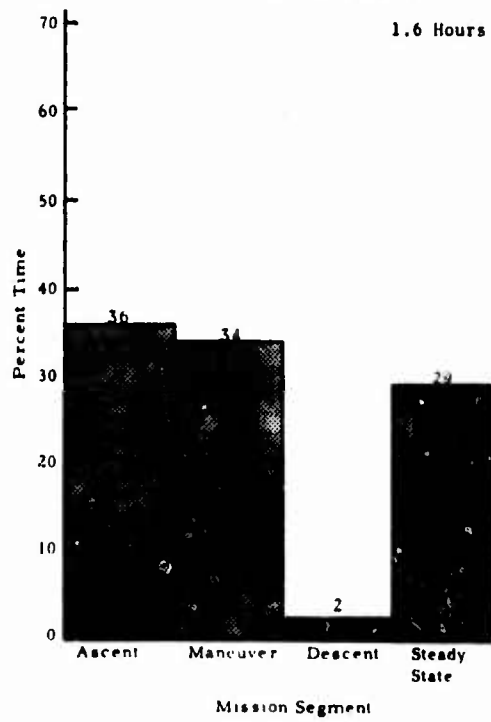
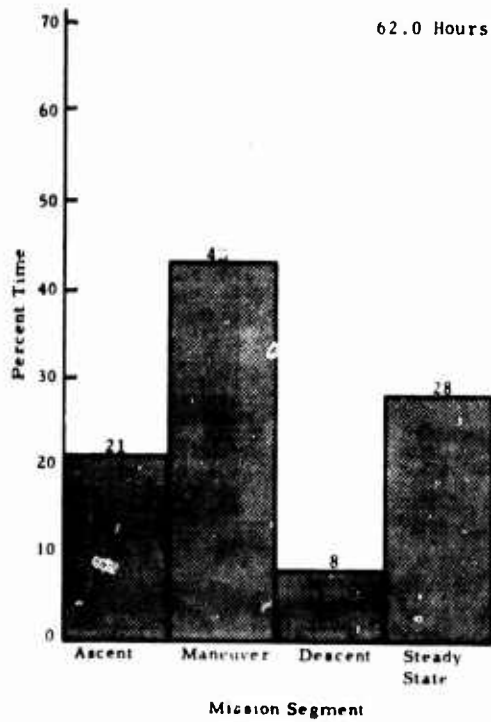
d. Steady State

Figure 6. Flight Time in Each Mission Segment Broken Down by Percentage of Time in Each Rotor RPM Range.



b. 2000 to 2200 lb

c. 2200 to 2400 lb

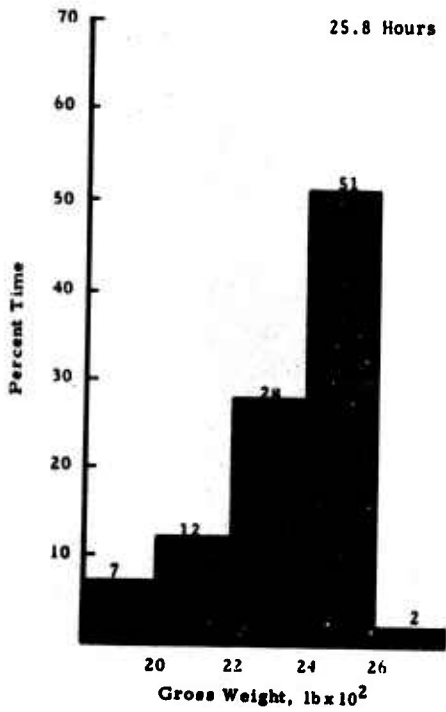


d. 2400 to 2600 lb

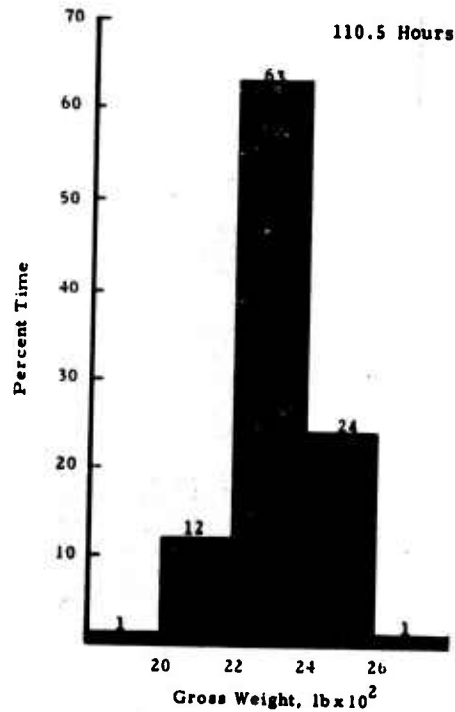
e. Above 2600 lb

Figure 4. Concluded

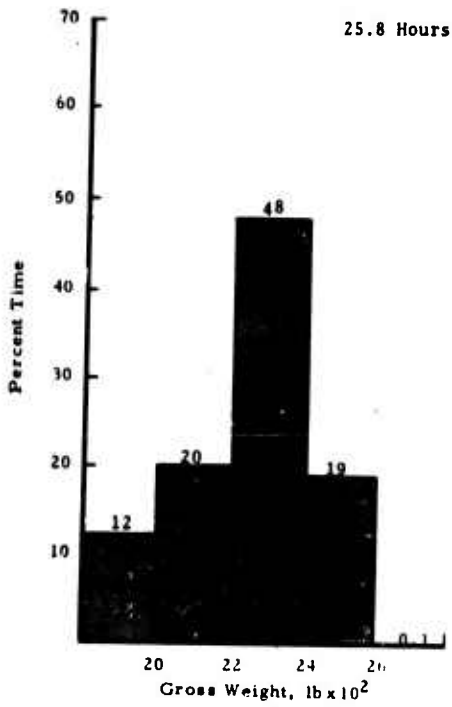




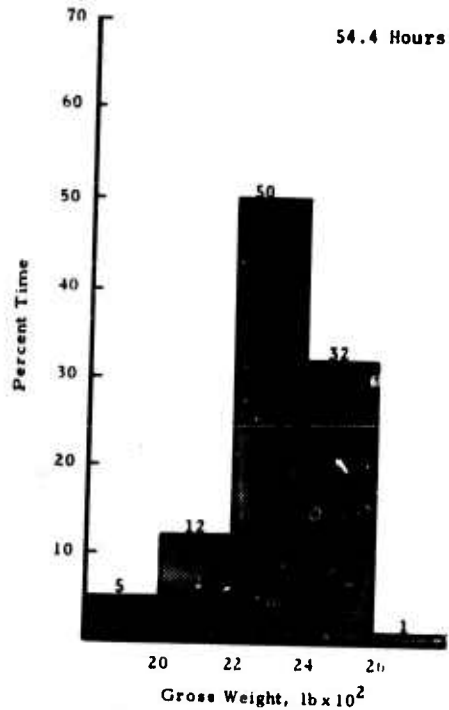
a. Ascent



b. Maneuver

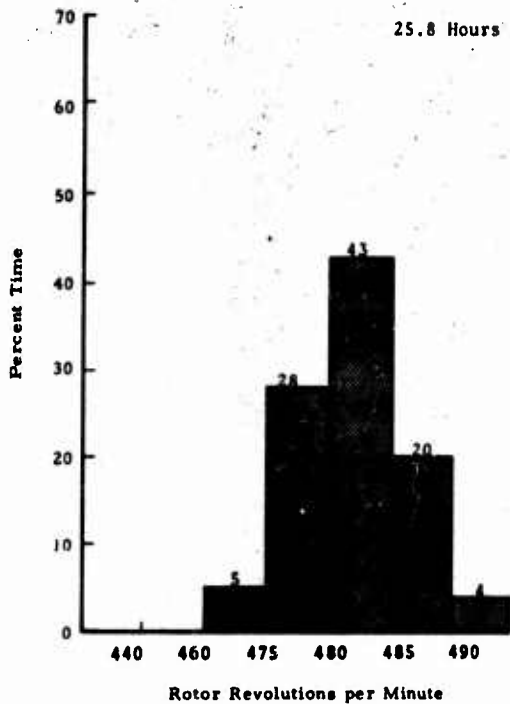


c. Descent

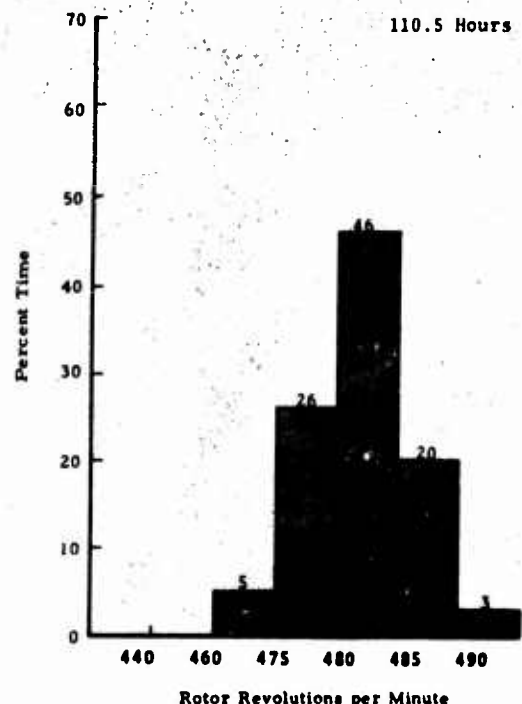


d. Steady State

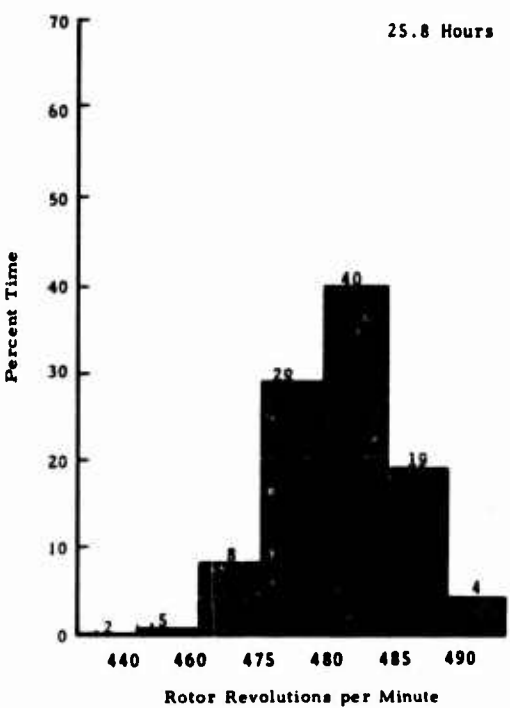
Figure 5. Flight Time in Each Mission Segment Broken Down by Percentage of Time in Each Gross Weight Range.



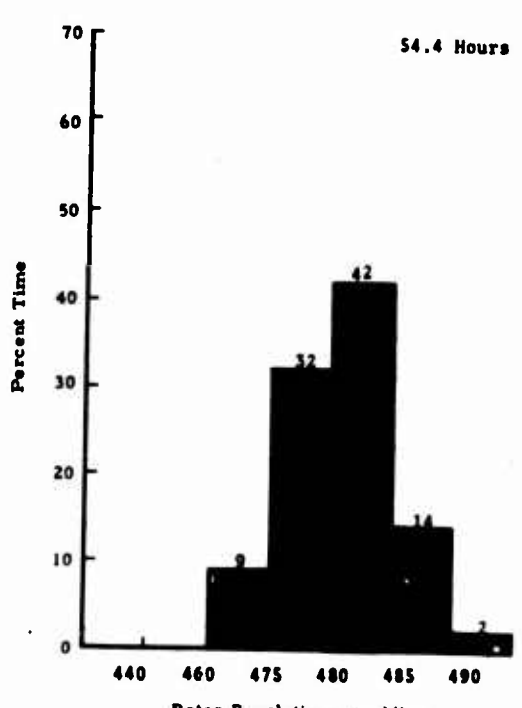
a. Ascent



b. Maneuver

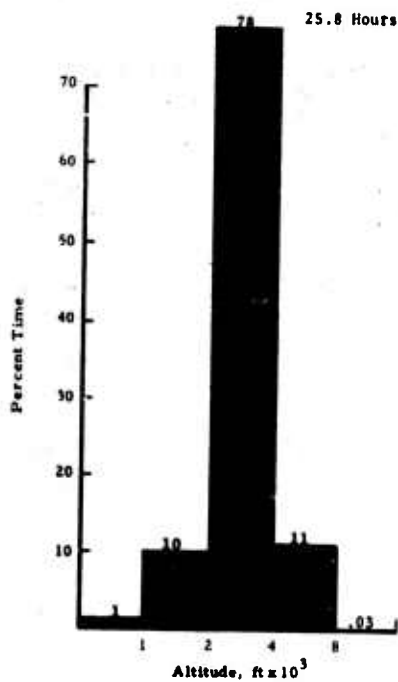


c. Descent

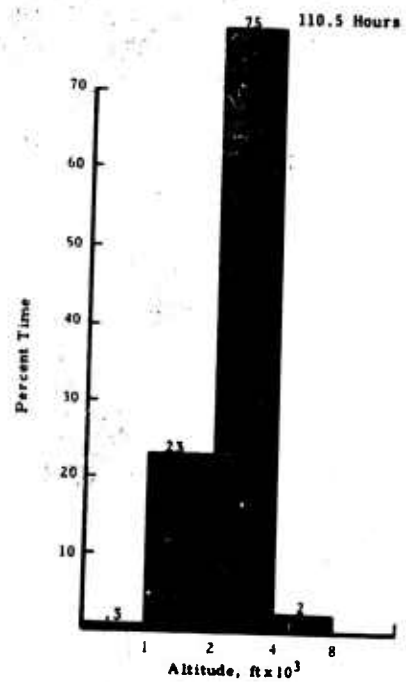


d. Steady State

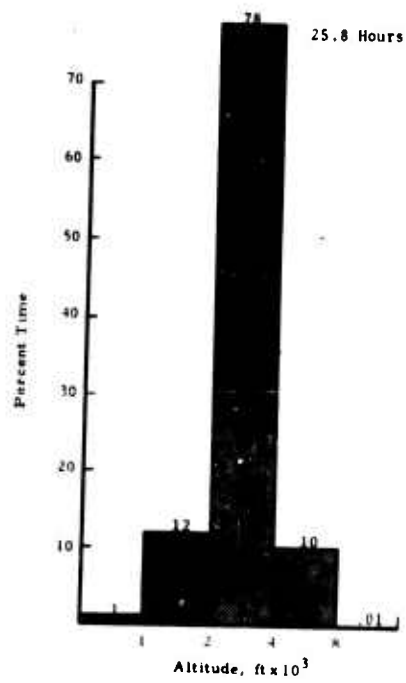
Figure 6. Flight Time in Each Mission Segment Broken Down by Percentage of Time in Each Rotor RPM Range.



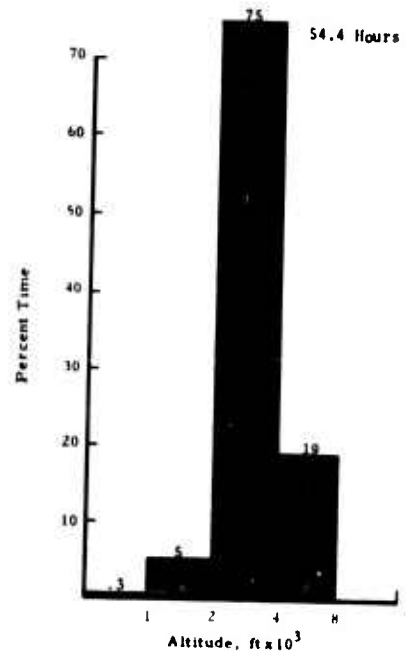
a. Ascent



b. Maneuver

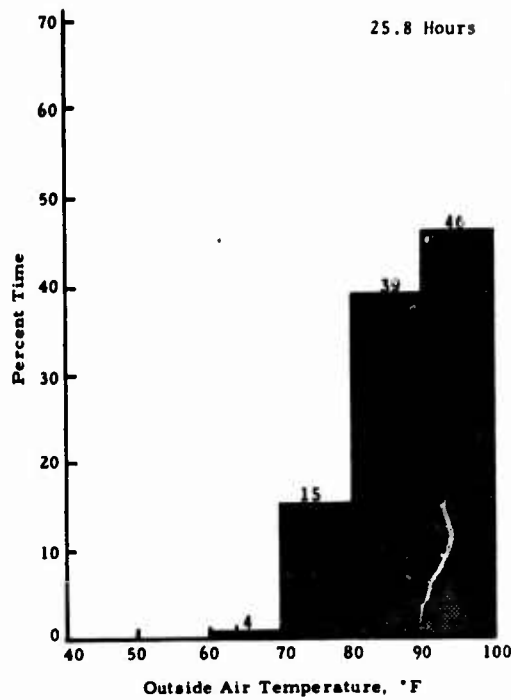


c. Descent

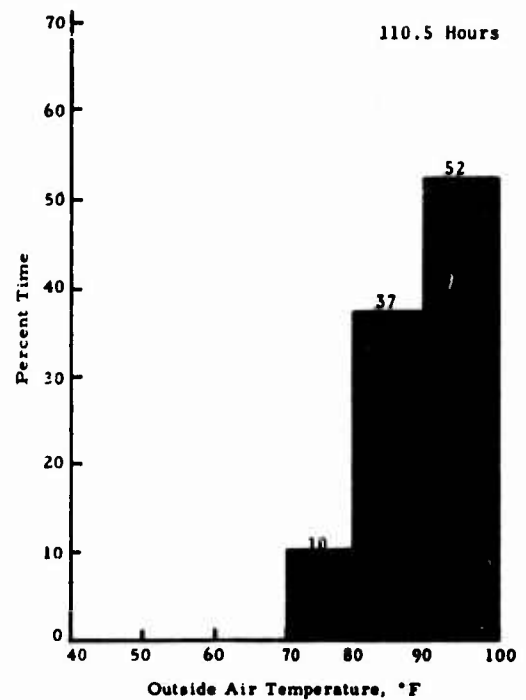


d. Steady State

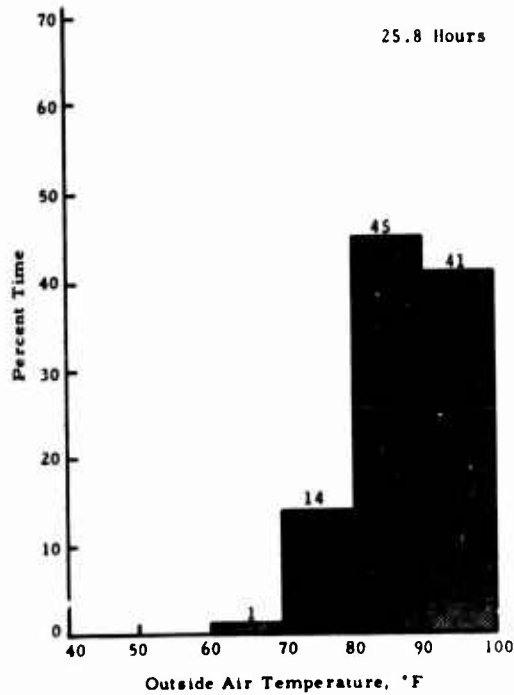
Figure 7. Flight Time in Each Mission Segment Broken Down by Percentage of Time in Each Altitude Range.



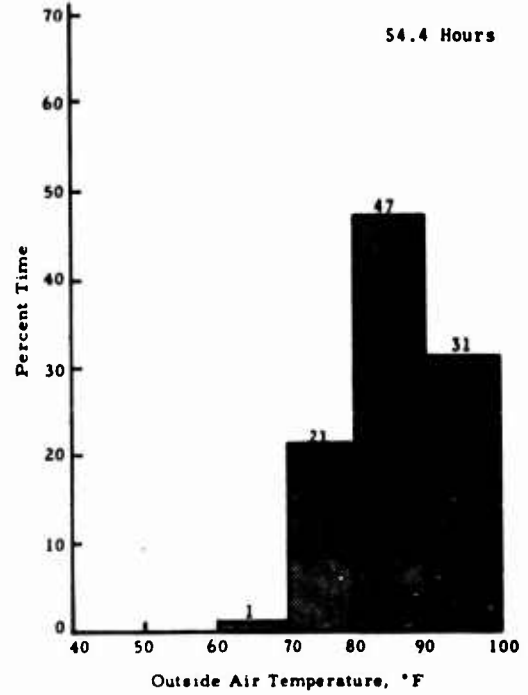
a. Ascent



b. Maneuver

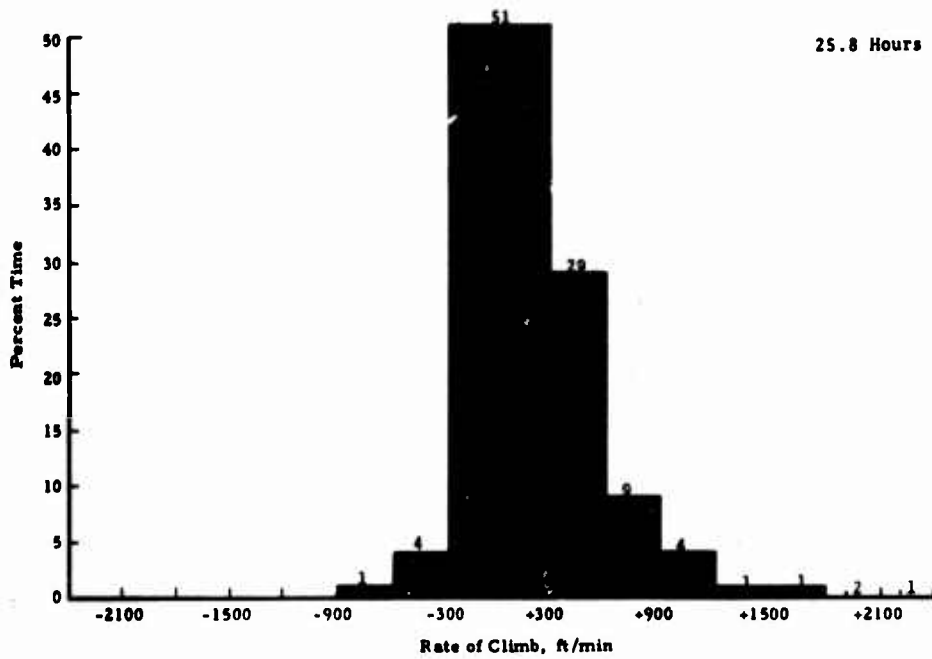


c. Descent

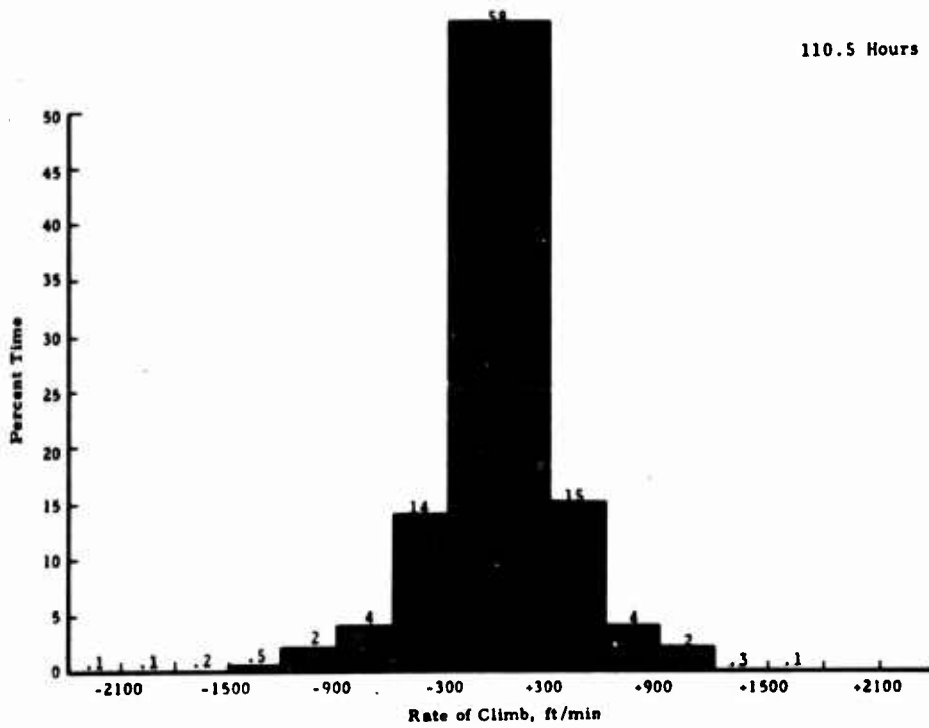


d. Steady State

Figure 8. Flight Time in Each Mission Segment Broken Down by Percentage of Time in Each Outside Air Temperature Range.

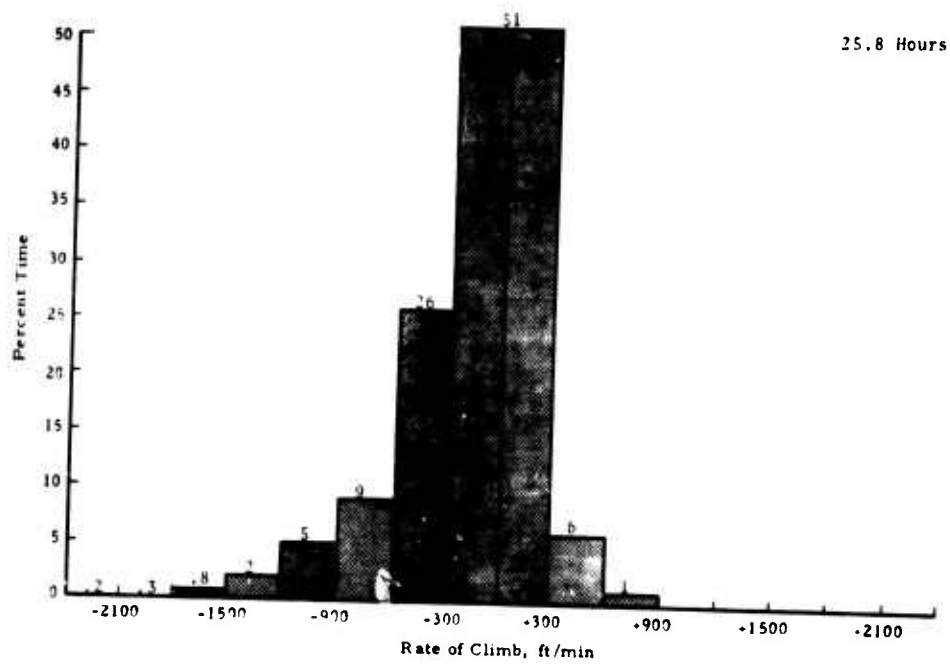


a. Ascent

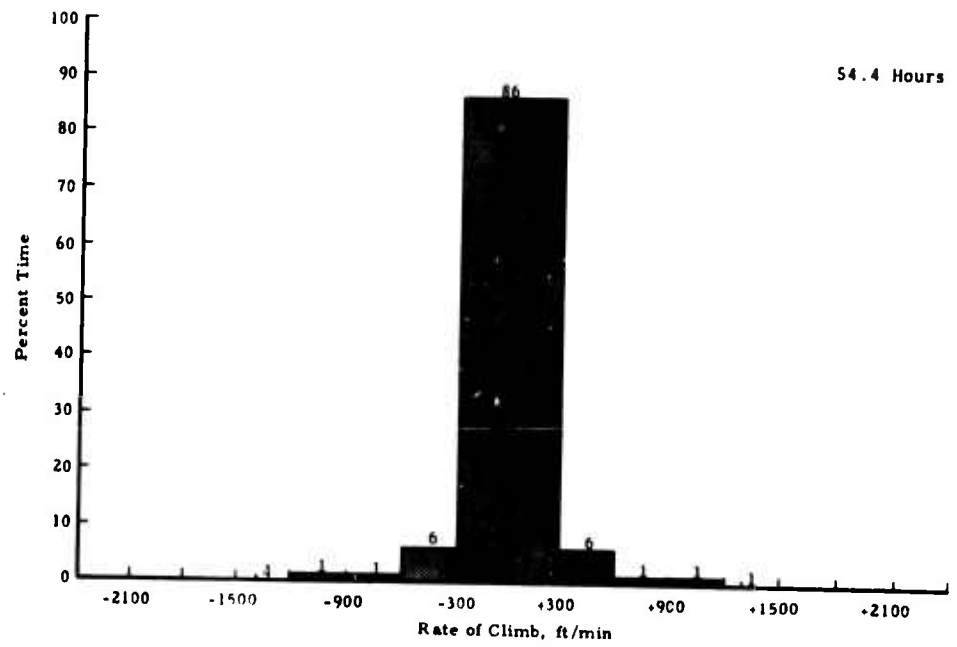


b. Maneuver

Figure 9. Flight Time in Each Mission Segment Broken Down by Percentage of Time in Each Rate-of-Climb Range.

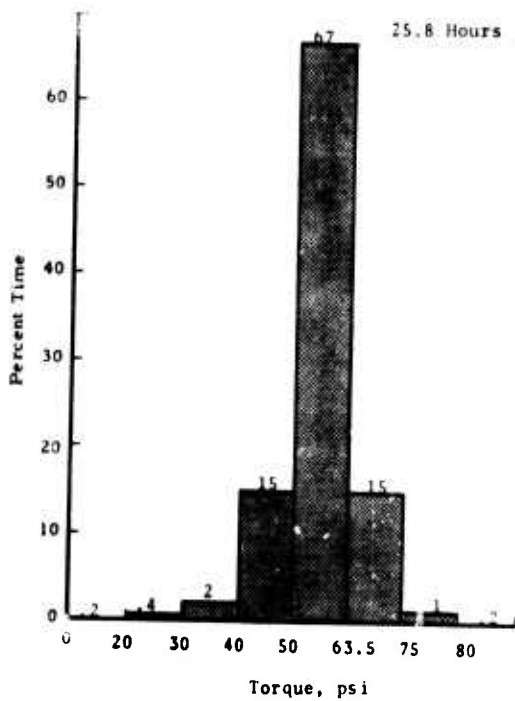


c. Descent

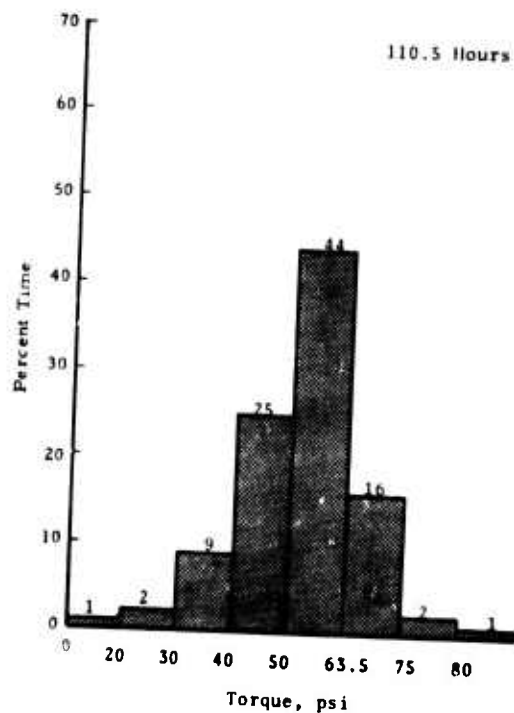


d. Steady State

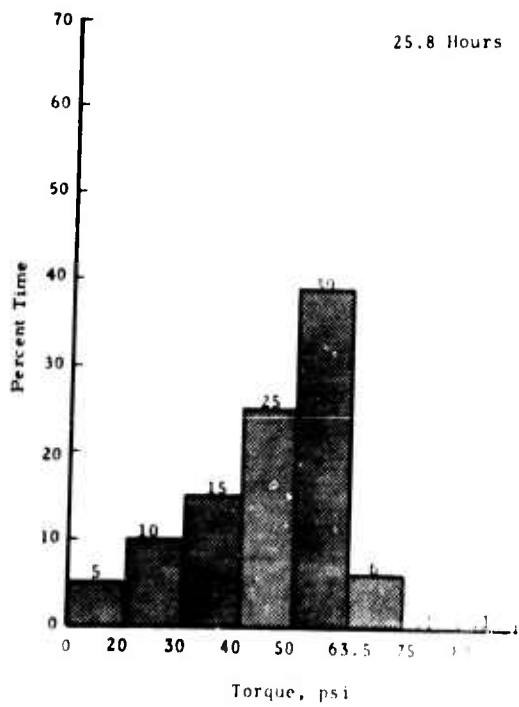
Figure 9. Concluded



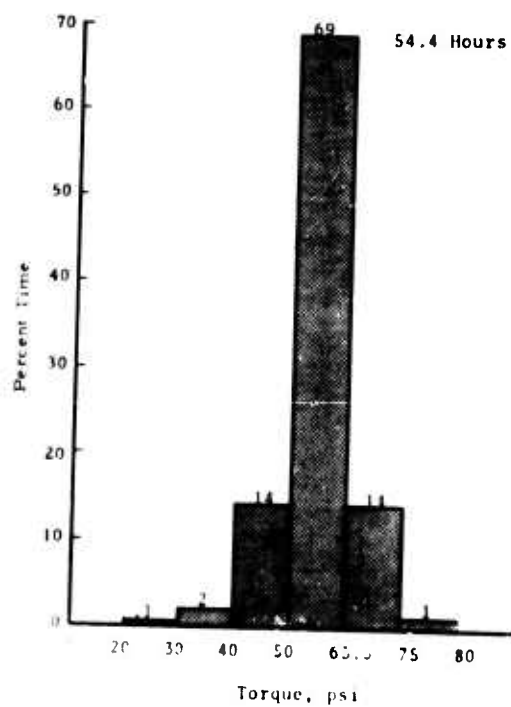
a. Ascent



b. Maneuver

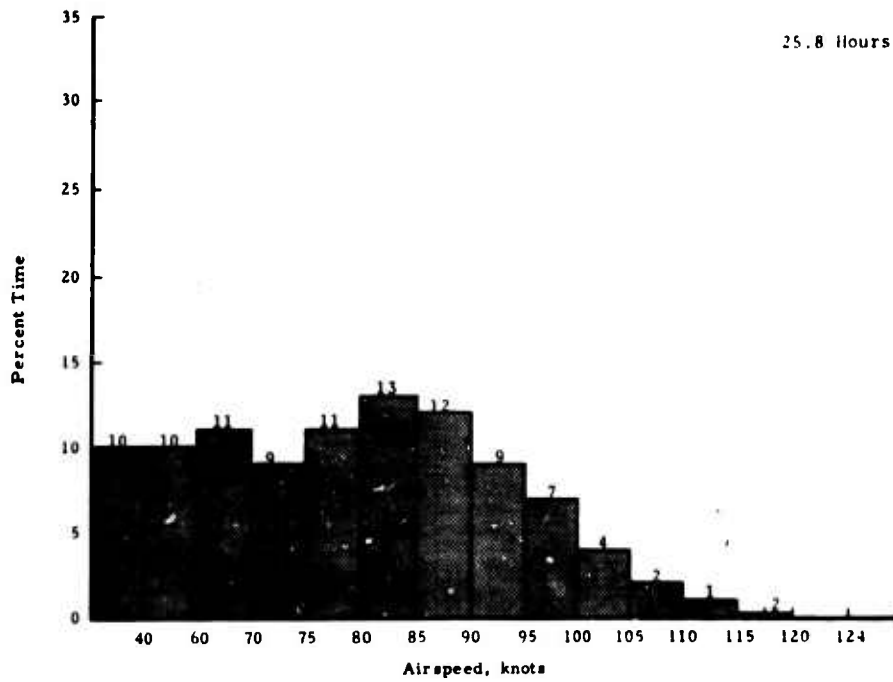


c. Descent

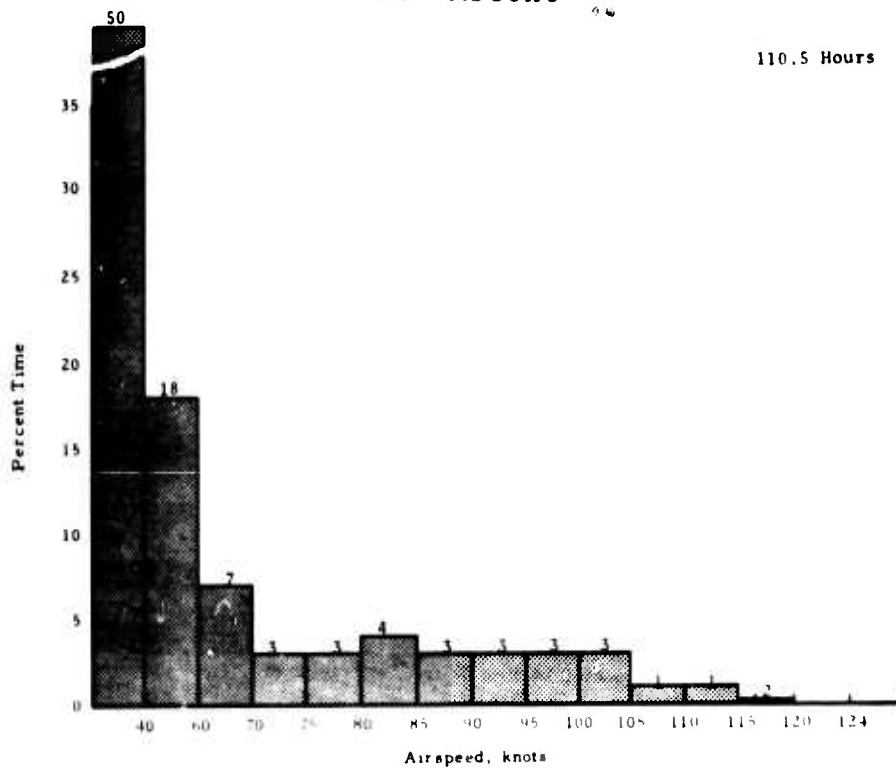


d. Steady State

Figure 10. Flight Time in Each Mission Segment Broken Down by Percentage of Time in Each Engine Torque Range.



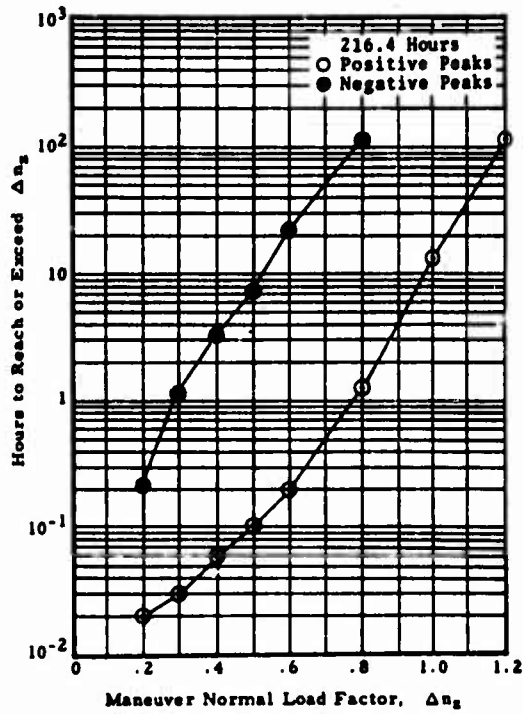
a. Ascent



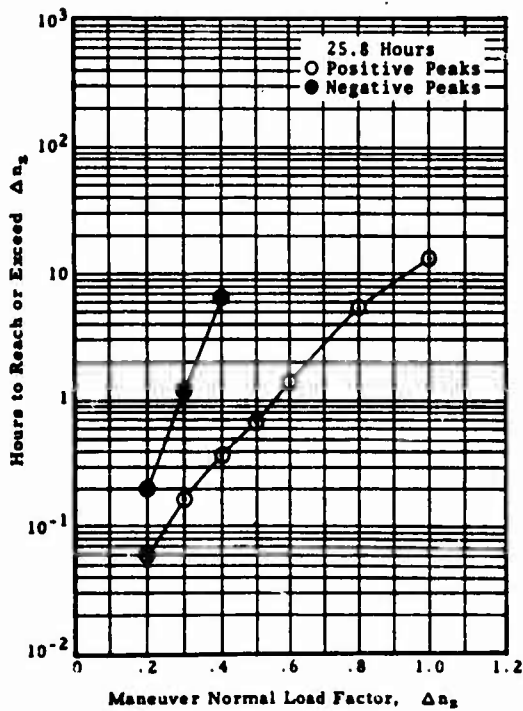
b. Maneuver

Figure 11. Flight Time in Each Mission Segment Broken Down by Percentage of Time in Each Airspeed Range.

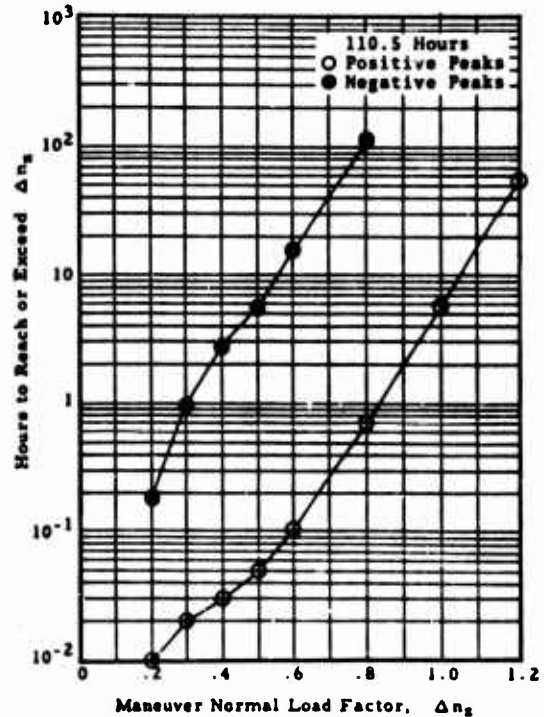




a. Composite

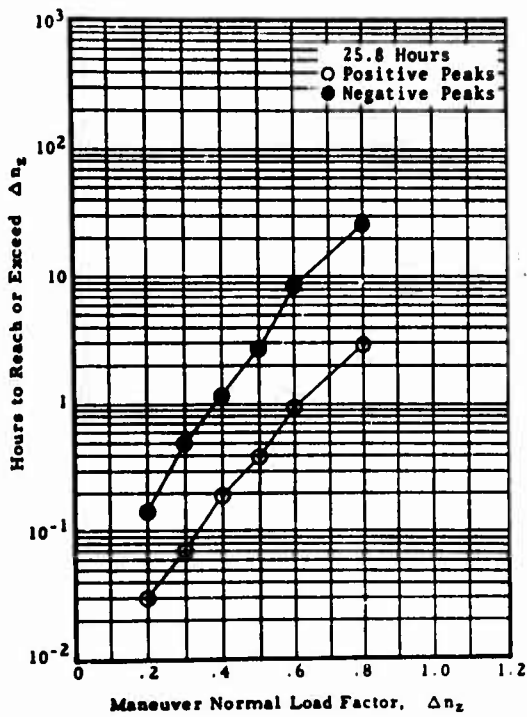


b. Ascent

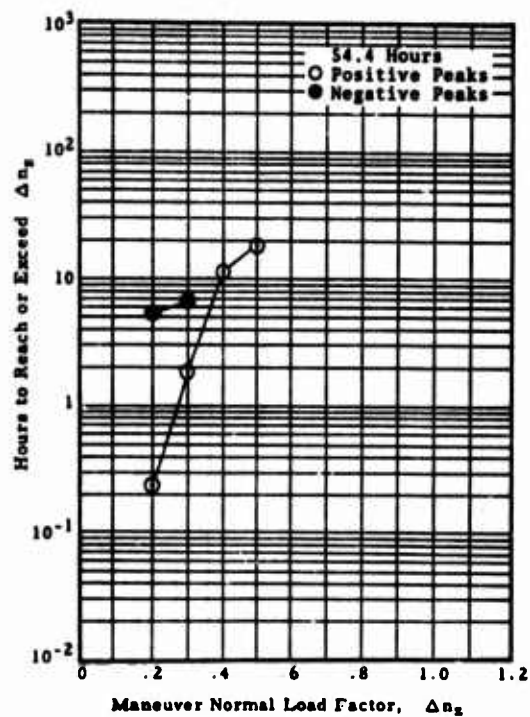


c. Maneuver

Figure 12. Exceedance Curves for Incremental Maneuver Normal Load Factor Peaks by Mission Segment.

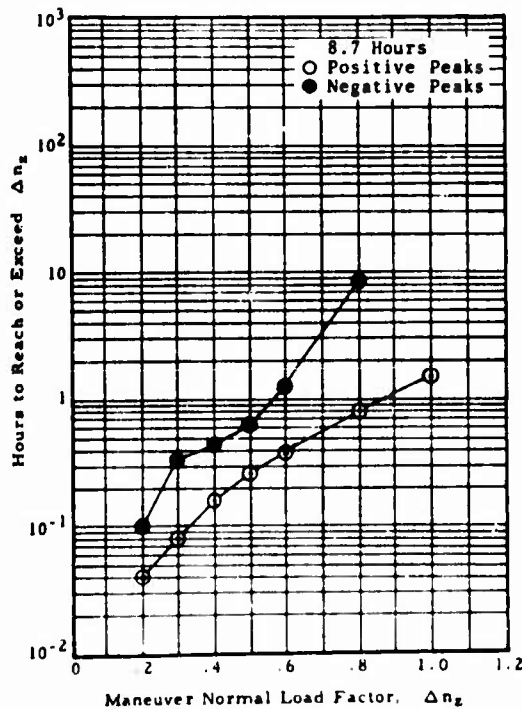


d. Descent



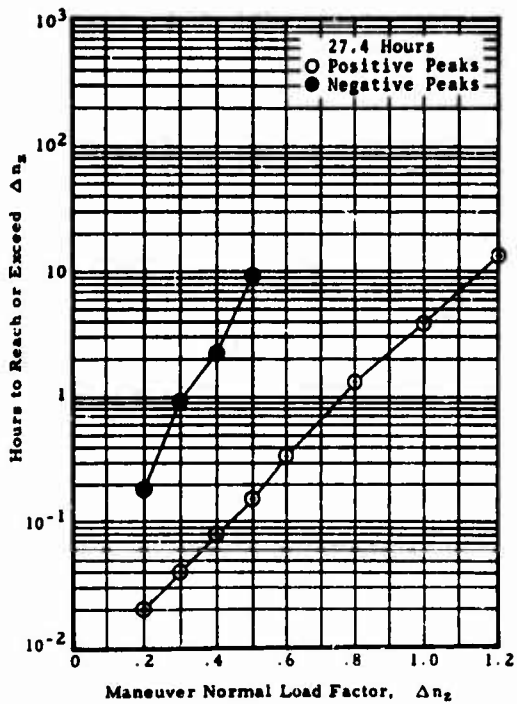
e. Steady State

Figure 12. Concluded

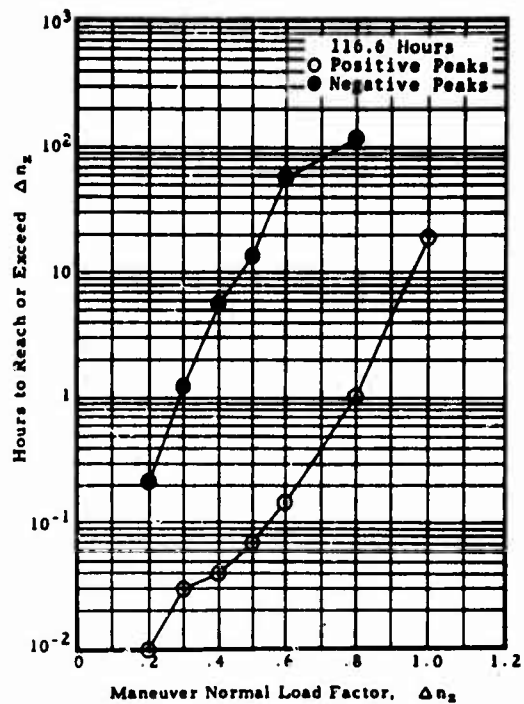


a. Below 2000 lb

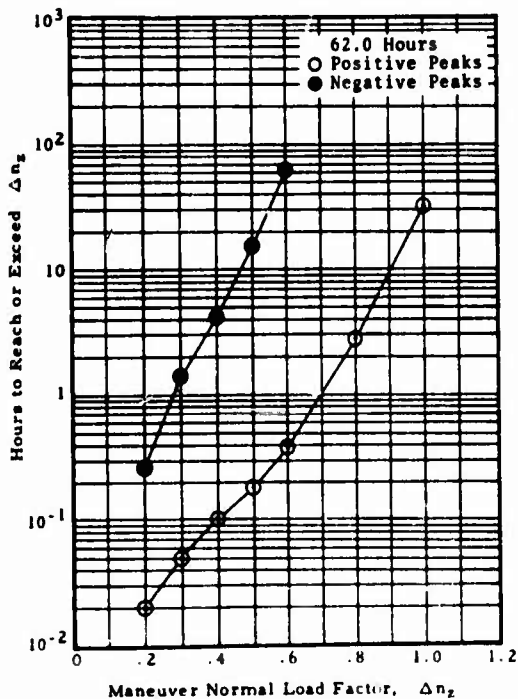
Figure 13. Exceedance Curves for Incremental Maneuver Normal Load Factor Peaks by Gross Weight Ranges.



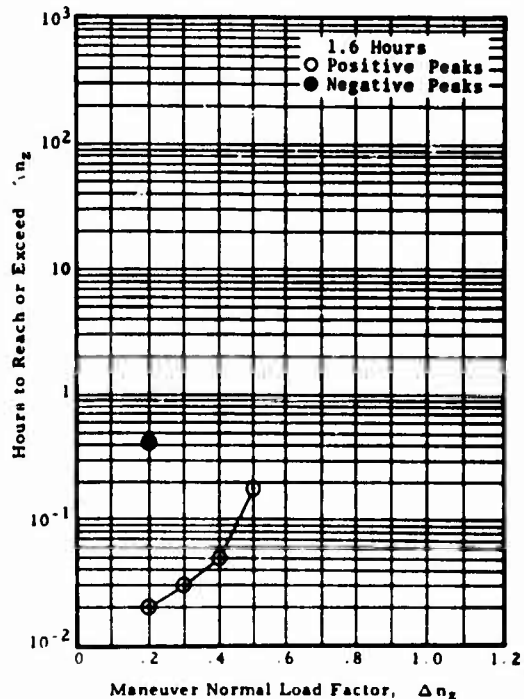
b. 2000 to 2200 lb



c. 2200 to 2400 lb



d. 2400 to 2600 lb



e. Above 2600 lb

Figure 13. Concluded

LOAD FACTOR %	TIP SPEED RATIO, $\mu$									TOTAL
	<0.00	0.00 to 0.05	0.05 to 0.10	0.10 to 0.15	0.15 to 0.20	0.20 to 0.25	0.25 to 0.30	0.30 to 0.35	≥0.35	
>2.4										
2.2 to 2.4					1	1				2
2.0 to 2.2				1	7	7	4			19
1.8 to 2.0			1	37	75	30	8			151
1.6 to 1.8		9	50	410	328	96	22	2		916
1.5 to 1.6		9	128	530	296	111	20	2		1096
1.4 to 1.5		35	283	722	341	145	57	6		1589
1.3 to 1.4		182	807	948	457	345	129	5		2873
1.2 to 1.3		639	1924	1077	863	836	400	21		5660
0.8 to 1.2										
0.7 to 0.8		29	34	102	148	277	211	5		840
0.6 to 0.7			1	18	25	68	16	1		129
0.5 to 0.6				3	15	18	3			39
0.4 to 0.5				2	6	11	1			20
0.2 to 0.4					4	2	2			8
<0.2					1	1				2
TOTAL		893	3128	3853	2607	1948	873	42		13344

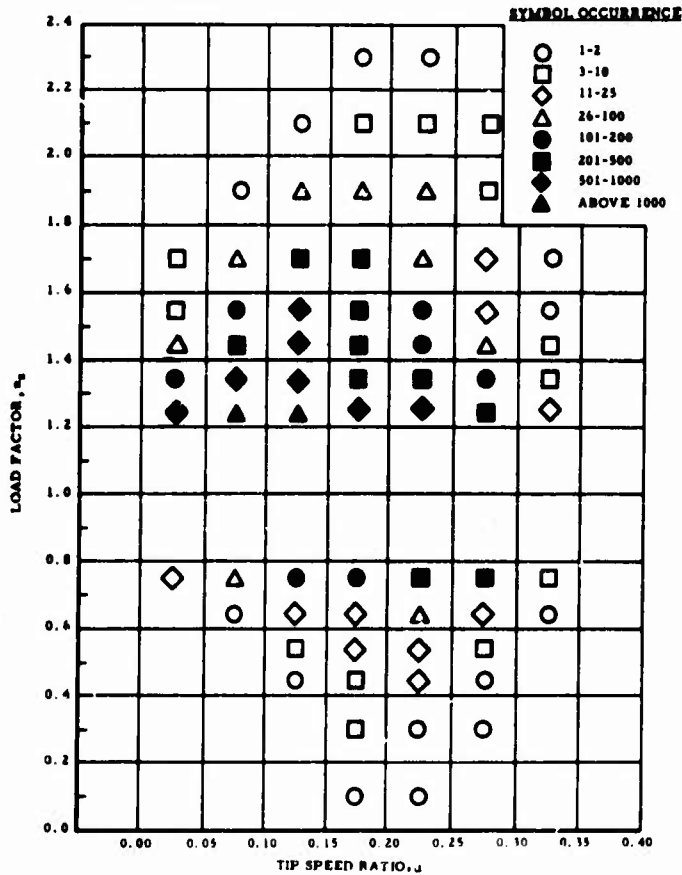


Figure 14. Diagram and Tabulation of Maneuver Normal Load Factor Peaks in Ranges of Rotor Tip Speed Ratio.

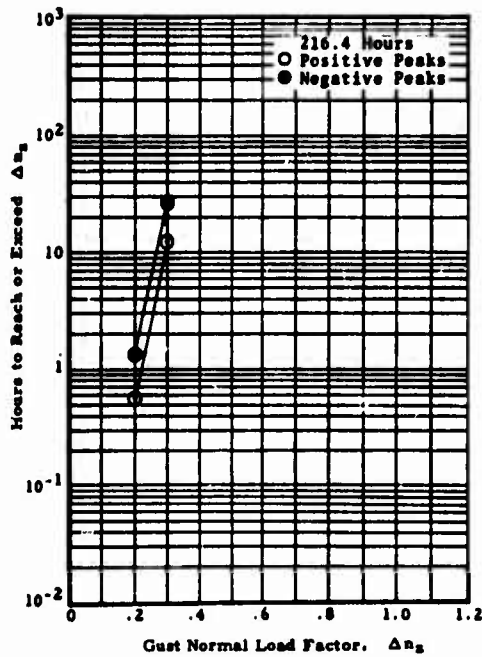
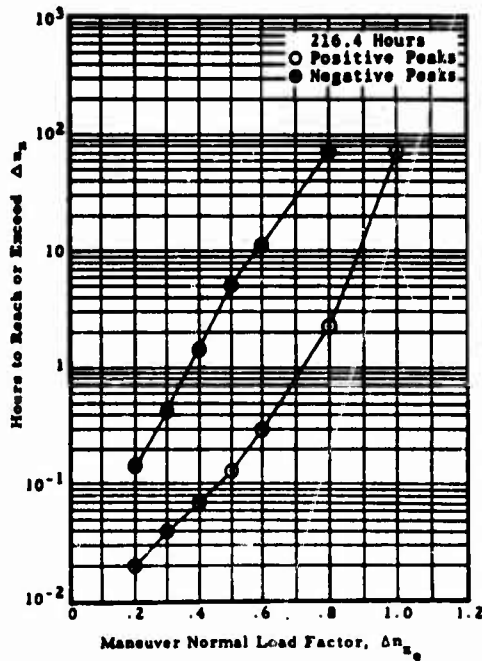
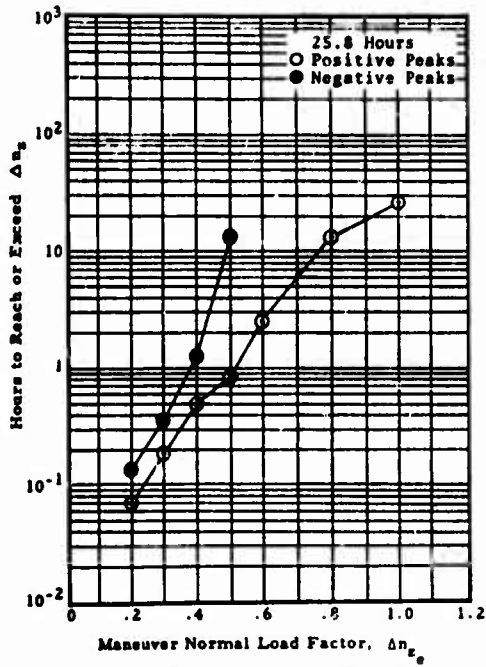


Figure 15. Exceedance Curves for Incremental Gust Normal Load Factor Peaks, Composite.

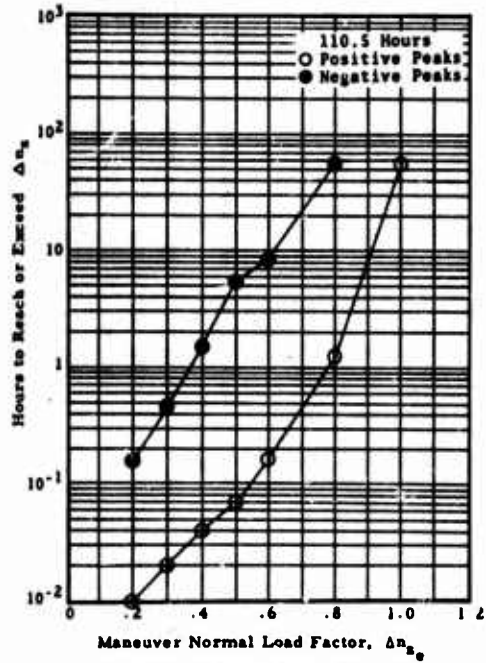


a. Composite

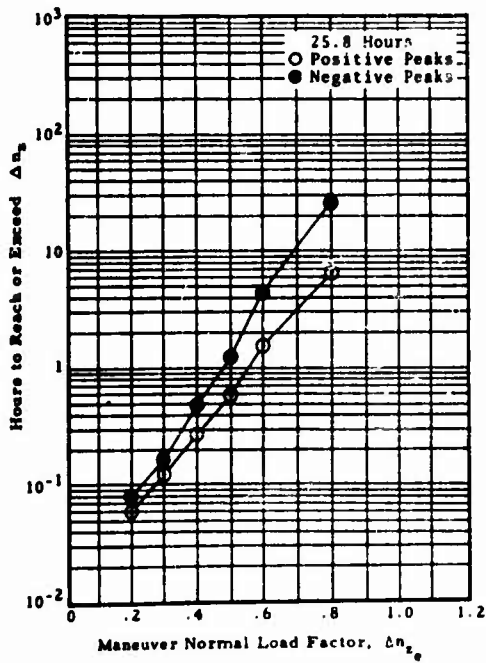
Figure 16. Exceedance Curves for Maneuver Incremental Equivalent Normal Load Factor Peaks by Mission Segment.



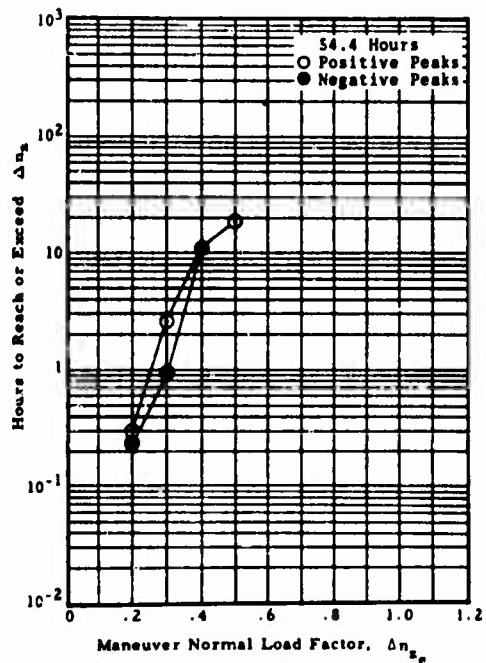
b. Ascent



c. Maneuver



d. Descent



e. Steady State

Figure 16. Concluded

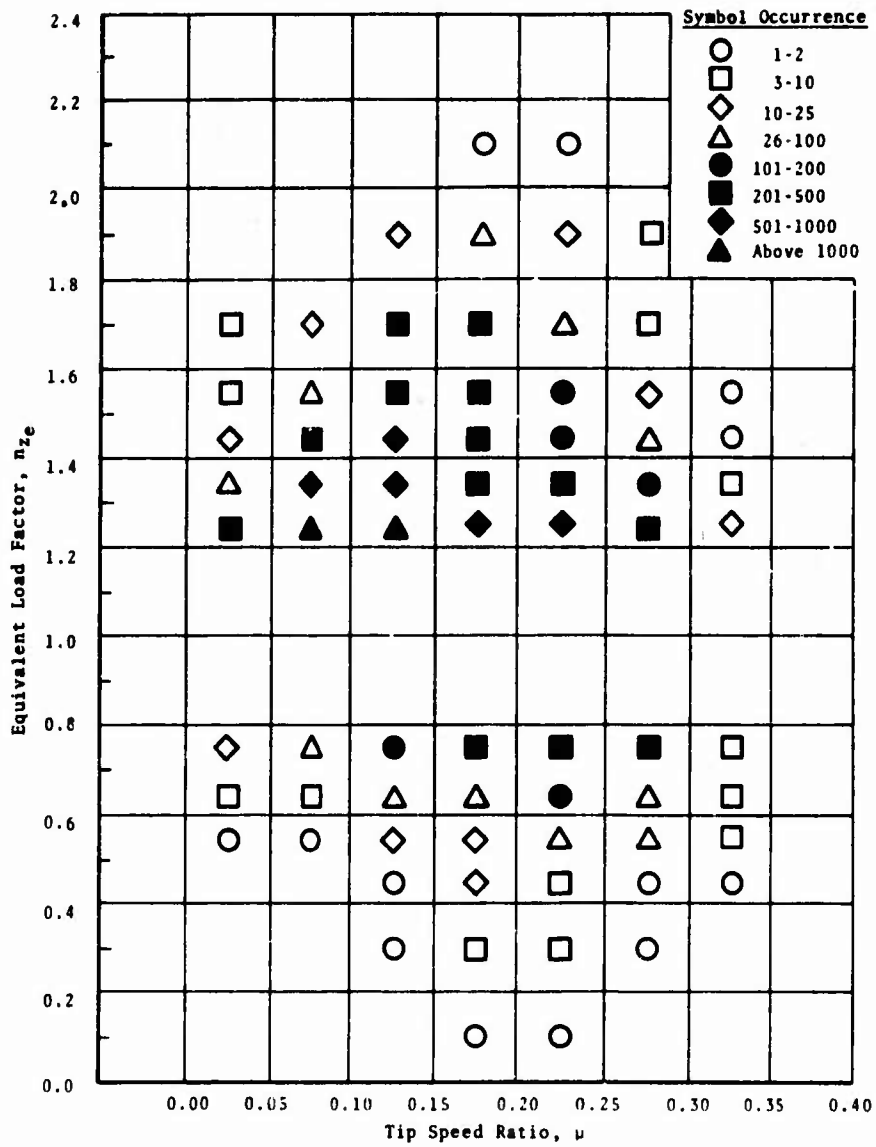


Figure 17. Diagram of Equivalent Normal Factor Frequencies in Ranges of Rotor Tip Speed Ratio.

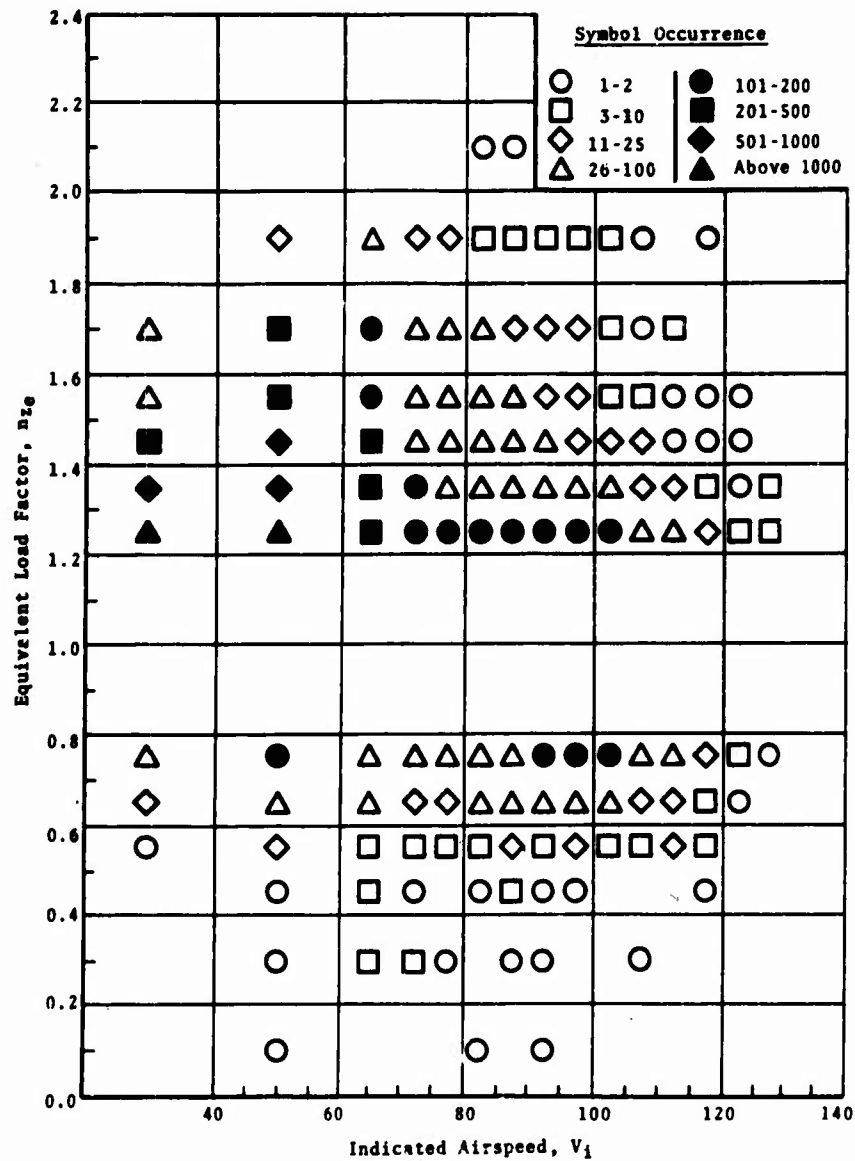


Figure 18. Diagram of Equivalent Normal Factor Frequencies in Ranges of Indicated Airspeed.



TABLE IV. TIME FOR ALTITUDE VERSUS AIRSPEED BY WEIGHT AND MISSION SEGMENT

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT LESS, BY MISSION SEG. ASCENT

LESS	LESS	1000	2000	4000	8000	SUM
		1.3	11.5			12.8
40		0.8	14.2			15.1
60		0.2	13.8	0.5		14.5
70		0.7	3.0	0.4		4.1
75		0.4	4.6	1.8		6.8
80		1.1	12.3	1.4		14.8
85		0.8	10.0	1.6		12.4
90			8.9	2.2		11.2
95			6.6	1.5		8.1
100			2.9	0.2		3.2
105			1.4	0.4		1.8
110			3.6			3.6
115			1.3			1.3
120						
124						
SUM		5.3	94.2	10.0		109.5

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT LESS, BY MISSION SEG. MANUVR

LESS	LESS	1000	2000	4000	8000	SUM
		0.8	1.2			2.0
40		0.4	3.1	0.1		3.6
60		0.1	4.9	0.1		5.0
70		0.3	5.2			5.6
75		0.1	3.6	0.1		3.8
80		0.4	4.7	0.2		5.3
85		0.2	5.2	0.2		5.6
90		0.3	3.9	0.3		4.5
95		0.3	5.0			5.3
100		0.3	4.7			4.9
105		0.3	2.5			2.8
110		0.2	4.0			4.1
115			2.6			2.6
120			0.4			0.4
124			0.4			0.4
SUM		3.8	51.4	1.0		56.1

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT LESS, BY MISSION SEG. DESCNT

LESS	LESS	1000	2000	4000	8000	SUM
		6.0	13.2			19.2
40		2.6	15.2			17.8
60		1.1	10.8			12.0
70		1.0	8.8			9.8
75		0.7	4.4	0.1		5.1
80		1.0	8.7	0.4		10.2
85		1.2	13.3	0.7		15.2
90		0.6	16.4	5.3		22.3
95		1.0	11.4	6.1		18.5
100		1.2	13.2	0.6		15.0
105		2.9	12.1			15.0
110		2.8	10.1			12.8
115		0.9	13.3			14.2
120		0.2	1.9			2.1
124			1.1			1.1
SUM		23.1	154.0	13.2		190.3

TABLE IV - Continued

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT LESS, BY MISSION SEG. STEADY

	LESS	1000	2000	4000	8000	SUM
LESS		1.9	3.0			4.9
40			0.1			0.1
60						
70			2.0			2.0
75			3.2			3.2
80			6.0	0.3		6.3
85			11.7	1.1		12.7
90	0.9		13.2	5.2		19.3
95	1.0		17.0	6.3		24.3
100	0.1		11.1	4.2		15.4
105			20.0	2.1		22.1
110			30.2	2.2		32.4
115			17.5	1.5		19.1
120			7.6	0.2		7.9
124						
SUM		3.9	137.5	23.1		164.6

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT LESS, BY MISSION SEG.

	LESS	1000	2000	4000	8000	SUM
LESS		10.0	28.9			38.9
40		3.8	32.7	0.1		36.6
60		1.4	29.5	0.6		31.4
70		2.0	19.1	0.4		21.5
75		1.2	15.7	2.0		18.9
80		2.5	31.7	2.3		36.6
85		2.2	40.2	3.5		45.9
90		1.8	42.4	13.1		57.3
95		2.4	39.9	13.9		56.2
100		1.6	31.9	5.0		38.5
105		3.2	35.9	2.5		41.7
110		2.9	47.8	2.2		52.9
115		0.9	34.8	1.5		37.2
120		0.2	5.0	0.2		5.4
124			1.5			1.5
SUM		36.2	437.0	47.4		520.5

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 2000 . BY MISSION SEG. ASCENT

	LESS	1000	2000	4000	8000	SUM
LESS		2.3	21.2	0.2		23.7
40		0.6	18.1	0.3		19.1
60		0.9	14.6	1.8		17.3
70		0.5	13.5	1.6		15.6
75		1.4	15.9	1.0		18.3
80		0.8	13.6	3.1		17.4
85		1.0	11.1	6.8		18.9
90		1.4	10.7	5.1	0.1	17.2
95		1.3	8.6	6.2	0.3	16.5
100		0.1	8.0	4.1		12.2
105			3.4	0.9		4.3
110			1.6			1.6
115			0.5			0.5
120			0.5			0.5
124						
SUM		10.3	141.5	31.0	0.4	183.2

TABLE IV - Continued

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 2000 , BY MISSION SFG. MANUVR

	LESS	1000	2000	4000	8000	SUM
LESS	0.3	162.8	222.4			385.5
40	1.2	30.4	87.9			119.6
60	0.2	9.3	43.0	0.8		53.2
70	0.1	4.1	25.2	0.4		29.7
75	0.3	3.5	27.3	1.5		32.6
80	0.3	4.9	27.3	0.8		33.4
85	0.7	4.6	29.7	1.5		36.5
90	0.3	2.6	25.5	0.4		28.8
95	0.6	0.3	19.3	0.9		21.1
100	0.4	0.3	13.1	1.7		15.5
105	0.6	0.3	5.7	0.9		7.4
110	0.6		1.8	0.3		2.7
115			0.5			0.5
120			0.1			0.1
124						
SUM	5.7	223.2	528.7	9.0		766.7

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 2000 , BY MISSION SFG. DESCNT

	LESS	1000	2000	4000	8000	SUM
LESS	0.8	8.3	29.1			38.2
40	0.4	5.0	18.8			24.2
60	0.2	3.1	22.7	0.3		26.3
70	0.1	2.4	14.6	0.1		17.2
75	0.1	2.2	13.7	0.3		16.2
80	0.2	1.3	14.9	1.5		17.8
85	0.3	1.5	18.2	1.2		21.2
90	0.2	1.9	25.4	4.2		31.7
95	0.2	4.9	23.9	4.6	0.1	33.8
100	0.1	3.5	26.8	8.2		38.6
105	0.3	2.7	17.9	9.0		29.9
110	0.4	0.7	7.4	2.7		11.2
115	0.3	0.4	5.1	0.6		6.3
120		0.6	1.4			2.0
124		0.2	0.1			0.3
SUM	3.6	38.5	240.0	32.7	0.1	314.9

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 2000 , BY MISSION SFG. STEADY

	LESS	1000	2000	4000	8000	SUM
LESS		11.3	39.4	0.5		51.2
40			0.4			0.4
60			2.8			2.8
70			5.5	0.1		5.6
75		0.5	14.9	2.9		18.4
80		0.3	19.6	6.4		26.2
85		0.3	21.3	8.1		29.7
90		0.3	32.8	15.4		48.4
95		5.1	51.4	23.7		80.2
100		2.7	31.3	26.5		60.5
105		2.7	22.7	18.3		43.6
110		0.2	9.5	3.2		12.9
115			0.6	0.2		0.8
120						
124						
SUM		23.5	252.1	105.3		381.0

TABLE IV - Continued

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 2000 , BY MISSION SEG.							SUM
	LESS	1000	2000	4000	8000		SUM
LESS	1.2	184.7	312.1	0.7			498.7
40	1.7	36.0	125.2	0.3			163.2
60	0.4	13.3	83.1	2.8			99.5
70	0.1	7.0	58.8	2.2			68.1
75	0.4	7.7	71.8	5.6			85.5
80	0.5	7.2	75.4	11.7			94.8
85	1.0	7.5	80.3	17.7			106.4
90	0.5	6.2	94.4	25.0	0.1		126.2
95	0.8	11.6	103.2	35.5	0.4		151.6
100	0.5	6.6	79.2	40.5			126.9
105	0.9	5.6	49.7	29.0			85.3
110	1.0	0.8	20.4	6.2			28.4
115	0.3	0.4	6.7	0.8			8.2
120		0.6	2.0				2.6
124		0.2	0.1				0.3
SUM	9.3	295.5	1162.3	178.1	0.6		1645.8

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 2200 , BY MISSION SEG. ASCENT						
	LESS	1000	2000	4000	8000	SUM
LESS	1.0	3.9	37.0	0.3		42.1
40	0.3	4.3	31.5	2.6		38.7
60		2.1	38.3	7.1		47.4
70	0.3	1.1	29.2	9.8		40.3
75	0.1	3.0	40.5	10.9		54.5
80	0.6	3.4	43.7	7.7		55.5
85	0.7	1.0	37.7	5.2		44.6
90	0.2	2.9	29.4	10.0		42.5
95	0.4	4.2	22.3	6.9		33.8
100	0.9	2.6	17.1	3.4		23.9
105	0.4	2.9	6.1	2.2		11.5
110		0.1	3.5			3.7
115		0.1				0.1
120						
124						
SUM	4.7	31.6	336.3	66.1		438.7

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 2200 , BY MISSION SEG. MANUVR						
	LESS	1000	2000	4000	8000	SUM
LESS	6.1	532.8	1585.6	6.7		2131.2
40	3.2	169.4	682.2	3.3		858.2
60	1.9	54.6	227.5	1.6		285.6
70	0.4	23.0	108.3	1.6		133.3
75	0.7	17.9	106.7	2.1		127.4
80	0.3	11.8	97.1	5.4		114.5
85	0.2	6.7	96.5	4.0		107.3
90	0.7	8.3	90.9	16.5		116.3
95	0.4	7.8	97.5	15.1		120.8
100	0.4	6.0	92.1	6.0		104.5
105	0.1	4.1	41.8	1.7		47.6
110	0.1	1.5	16.3	1.8		19.7
115		0.3	8.3	0.4		8.9
120			2.1	0.4		2.5
124			1.4			1.4
SUM	14.4	844.1	3254.2	66.4		4179.2

TABLE IV - Continued

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 2200 , BY MISSION SEG. DESCNT

	LESS	1000	2000	4000	8000	SUM
LESS	1.3	21.0	61.0			83.2
40	0.6	9.2	26.5	0.2		36.5
60	0.2	6.0	23.6	0.4		30.3
70	0.3	3.2	19.0	0.5		22.9
75	0.2	3.2	23.5	1.4		28.2
80	0.5	4.8	34.8	3.2		43.3
85	0.3	3.0	46.6	5.3		55.2
90	0.1	3.2	64.4	8.3		76.0
95	0.2	3.4	74.6	14.5		92.7
100	0.6	5.4	77.7	14.3		98.0
105	0.2	11.9	68.6	9.8		90.5
110	1.2	4.4	34.1	6.7		46.5
115	0.2	0.9	15.7	3.7		20.4
120		0.9	5.8	1.0		7.7
124		1.9	2.5	0.1		4.5
SUM	6.0	82.4	578.2	69.4		736.0

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 2200 , BY MISSION SEG. STEADY

	LESS	1000	2000	4000	8000	SUM
LESS		11.8	115.0	0.3		127.0
40			7.7	3.4		11.1
60		0.2	15.1	7.0		22.2
70		1.0	16.3	5.8		23.1
75		1.8	28.8	17.2		47.8
80		4.6	55.3	20.8		80.7
85		3.5	104.7	46.5		154.7
90		2.9	154.6	84.3		241.8
95		11.8	246.1	96.9		354.9
100		26.3	238.1	38.6		303.0
105		20.8	144.4	22.4		187.5
110		4.8	52.7	13.1		70.7
115		0.7	12.3	2.0		15.1
120			5.1			5.1
124			0.3			0.3
SUM		90.0	1196.3	358.6		1645.0

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 2200 , BY MISSION SEG. SUM

	LESS	1000	2000	4000	8000	SUM
LESS	8.4	569.3	1798.6	7.3		2383.6
40	4.1	183.0	747.9	9.5		944.5
60	2.1	63.0	304.4	16.1		385.5
70	1.0	28.3	172.7	17.7		219.6
75	1.0	25.9	199.5	31.6		258.0
80	1.4	24.5	230.9	37.2		294.1
85	1.2	14.2	285.5	61.0		361.8
90	1.0	17.3	339.2	119.1		476.6
95	0.9	27.3	440.5	133.4		602.1
100	1.9	40.2	425.0	62.2		529.4
105	0.6	39.6	260.9	36.1		337.2
110	1.3	10.9	106.7	21.7		140.5
115	0.2	1.9	36.3	6.1		44.5
120		0.9	13.0	1.4		15.2
124		1.9	4.1	0.1		6.2
SUM	25.2	1048.1	5365.1	560.4		6998.8

TABLE IV - Continued

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 2400 , BY MISSION SEG. ASCENT

	LESS	1000	2000	4000	8000	SUM
LESS	1.1	17.6	52.4	0.5		71.7
40		12.0	58.9	4.9		75.7
60	0.3	10.3	70.0	7.7		88.4
70		8.3	62.7	5.9		76.9
75		6.6	75.3	8.2		90.0
80		7.5	85.7	11.8		105.0
85	0.4	10.6	84.8	7.1		102.9
90	0.4	8.7	59.0	6.9		71.0
95	0.4	8.1	38.5	7.4		54.3
100	0.5	3.6	22.2	3.4		29.7
105	0.3	1.1	10.2	1.8		13.4
110		1.9	1.1	0.9		4.0
115		1.0	0.1			1.0
120						
124						
SUM	3.5	97.1	616.7	66.6		783.9

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 2400 , BY MISSION SEG. MANUVR

	LESS	1000	2000	4000	8000	SUM
LESS	0.2	263.5	539.7			803.3
40	2.8	71.2	131.1	1.1		206.1
60	0.1	28.6	56.9	7.8		88.3
70		11.9	39.0	1.8		52.7
75		11.7	49.9	2.1		63.7
80		10.4	64.7	3.5		78.6
85		9.5	59.4	8.6		77.5
90		6.8	53.0	16.2		76.0
95		4.9	40.6	12.6		58.2
100		1.5	35.0	9.4		45.9
105		1.1	22.0	4.8		27.9
110		0.5	10.2	1.2		11.9
115		0.9	1.4	0.2		2.4
120		0.3	0.8	0.3		1.4
124		0.3		0.1		0.4
SUM	3.1	423.1	1103.6	64.6		1594.4

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 2400 , BY MISSION SEG. DESCNT

	LESS	1000	2000	4000	8000	SUM
LESS		11.2	17.5			28.7
40		4.1	10.1			14.2
60		3.0	13.1	0.1		16.2
70		3.0	10.7	0.3		14.0
75		2.4	13.8	0.6		16.8
80		2.4	29.9	1.9		34.2
85		2.6	34.4	7.6		44.7
90		3.4	27.7	4.6		35.7
95		1.7	20.8	9.2		31.6
100		1.0	22.4	4.3		27.6
105		0.9	13.8	3.1		17.7
110		0.2	11.3	0.2		11.7
115		0.2	5.5			5.7
120		0.3	0.8			1.1
124			0.4			0.4
SUM		36.4	232.0	31.9		300.2

TABLE IV - Continued

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 2400 , BY MISSION SEG. STEADY

	LESS	1000	2000	4000	8000	SUM
40	1.5	15.5	31.7	0.9		49.5
60			4.8			4.8
70	0.3	0.1	21.1	4.9		27.3
75	0.8	0.1	24.6	5.1		30.5
80	0.4	0.5	41.4	13.2		55.6
85	1.8	0.8	83.7	17.8		104.0
90	2.1	3.5	112.9	19.9		138.4
95	0.9	5.4	154.5	28.5		189.2
100		14.7	167.1	24.8		206.6
105		9.3	109.5	19.8		138.5
110		3.0	55.1	7.8		65.8
115		0.1	19.8	0.9		20.9
120			8.9			8.9
124			1.3			1.3
124			1.1			1.1
SUM	7.7	52.9	837.3	143.5		1041.4

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 2400 , BY MISSION SEG. SUM

	LESS	1000	2000	4000	8000	SUM
40	2.8	307.7	641.3	1.4		953.2
60	2.8	87.2	204.9	6.0		300.8
70	0.7	41.9	161.1	15.4		219.2
75	0.8	23.4	136.9	13.2		174.2
80	0.4	21.2	180.3	24.2		226.1
85	1.8	21.1	263.9	35.0		321.8
90	2.5	26.2	291.5	43.3		363.5
95	1.3	24.3	290.1	56.2		371.9
100	0.4	29.4	266.9	54.0		350.7
105	0.5	15.3	189.0	36.9		241.7
110	0.3	6.0	101.0	17.5		124.8
115		2.8	42.4	3.3		48.5
120		2.0	15.9	0.2		18.0
124		0.6	2.9	0.3		3.8
124		0.3	1.4	0.1		1.8
SUM	14.4	609.4	2789.6	306.6		3720.0

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 2600 , BY MISSION SEG. ASCENT

	LESS	1000	2000	4000	8000	SUM
40		2.9	4.7			7.6
60		4.4	5.1			9.5
70		2.2	2.5			4.7
75		0.2	5.4			5.7
80		0.3	3.1			3.3
85			2.1			2.1
90			2.0			2.0
95			0.1			0.1
100						
105						
110						
115						
120						
124						
124						
SUM		10.0	25.0			35.0

TABLE IV - Continued

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 2600 • BY MISSION SEG. MANUVR

	LESS	1000	2000	4000	8000	SUM
LESS		3.4	0.1			3.5
40		0.7	4.2			4.9
60		0.1	5.3			5.3
70		0.1	3.4			3.4
75		0.4	3.1			3.6
80		1.2	2.1			3.4
85		1.1	3.8			4.9
90		1.5	2.1			3.5
95		0.1	0.6			0.7
100						
105						
110						
115						
120						
124						
SUM		8.4	24.7			33.1

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 2600 • BY MISSION SEG. DESCNT

	LESS	1000	2000	4000	8000	SUM
LESS			0.2			0.2
40			0.2			0.2
60						
70			0.3			0.3
75			0.1			0.1
80			0.1			0.1
85			0.7			0.7
90			0.2			0.2
95			0.3			0.3
100						
105						
110						
115						
120						
124						
SUM			2.1			2.1

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 2600 • BY MISSION SEG. STEADY

	LESS	1000	2000	4000	8000	SUM
LESS		1.0	0.6			1.5
40						
60			6.7			6.7
70			5.8			5.8
75			7.9			7.9
80	0.6		3.2			3.9
85	0.8	0.3	0.3			1.4
90	0.5	0.3				0.9
95						
100						
105						
110						
115						
120						
124						
SUM	2.1	1.6	24.5			28.2



TABLE IV - Continued

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT 2600 , BY MISSION SEG.						SUM
	LESS	1000	2000	4000	8000	SUM
LESS		7.2	9.6			12.8
40		5.0	9.4			14.5
60		2.3	14.4			16.7
70		0.3	14.9			15.2
75		0.7	14.2			15.0
80	0.8	1.2	7.6			9.5
85	0.8	1.4	6.8			9.0
90	0.5	1.8	2.4			4.8
95		0.1	0.9			1.0
100						
105						
110						
115						
120						
124						
SUM	2.1	20.1	76.3			98.4

MINUTES FOR ALTITUDE VS AIRSPEED BY WEIGHT SUM , BY MISSION SEG.						SUM
	LESS	1000	2000	4000	8000	SUM
LESS	12.4	1079.0	2786.4	9.4		3887.2
40	8.5	315.1	1120.1	15.9		1459.6
60	3.2	121.8	592.5	34.9		752.4
70	1.9	60.9	402.3	33.4		498.5
75	1.9	56.7	481.6	63.3		603.4
80	4.4	56.7	609.5	86.2		756.8
85	5.4	51.4	704.2	125.5		886.6
90	3.4	51.3	768.6	213.5	0.1	1036.8
95	2.2	70.7	851.4	236.7	0.4	1161.5
100	3.0	63.8	723.1	144.6		936.5
105	1.9	54.5	447.5	85.1		589.0
110	2.3	17.4	217.2	33.3		270.3
115	0.5	5.2	93.7	8.6		107.9
120		2.3	22.9	1.9		27.1
124		2.4	7.2	0.2		9.8
SUM	50.9	2009.2	9830.3	1092.5	0.6	12983.4

TABLE V. TIME FOR CYCLIC STEADY VERSUS COLLECTIVE STEADY BY MISSION SEGMENT

MINUTES FOR CYCLIC VS COLL. BY MISS. SEG. ASCENT											
LESS	LESS	10	20	30	40	50	60	70	80	90	SUM
10											
20											
30											
40					55.7		63.5	67.8	163.9		350.9
50								414.8	630.2		1045.7
60					71.0			82.7			153.8
70											
80											
90											
SUM					126.7		63.5	565.4	794.8		1350.4

MINUTES FOR CYCLIC VS COLL. BY MISS. SEG. MANUVR											
LESS	LESS	10	20	30	40	50	60	70	80	90	SUM
10											
20											
30											
40					59.4		245.1	389.3	380.7		1074.5
50								1461.9	3388.3		4850.2
60					343.7			360.7			704.4
70											
80											
90											
SUM					403.1		245.1	2211.9	3769.0		6629.1

MINUTES FOR CYCLIC VS COLL. BY MISS. SEG. DESCNT											
LESS	LESS	10	20	30	40	50	60	70	80	90	SUM
10											
20											
30											
40					49.9		73.1	83.2	181.3		387.5
50								422.8	608.4		1031.2
60					54.5			70.2			124.8
70											
80											
90											
SUM					104.4		73.1	576.3	789.7		1543.5

TABLE V - Continued

MINUTES FOR CYCLIC VS COLL. BY MISS. SEG. STEADY											
LESS	LESS	10	20	30	40	50	60	70	80	90	SUM
10											
20											
30						2.4	1.3	1.4			5.1
40		5.6	1.1	9.0	56.6	161.2	37.8	23.9	11.3	1.2	307.6
50	28.9	22.6	17.2	227.4	600.4	311.3	37.0	41.9	48.3	14.4	1349.3
60	20.5	38.0	14.8	234.6	776.9	215.8	8.5	14.1	10.7	1.1	1334.5
70	22.2	11.4	136.9	47.1	38.2	2.2					258.0
80	2.7	1.9	1.1								5.7
90											
SUM	74.3	79.3	171.1	518.0	1472.2	692.8	84.5	81.4	69.8	16.7	3260.1

MINUTES FOR CYCLIC VS COLL. BY MISS. SEG. SUM											
LESS	LESS	10	20	30	40	50	60	70	80	90	SUM
10											
20											
30						2.4	1.3	1.4			5.1
40		5.6	1.1	9.0	221.6	161.2	419.5	564.3	737.2	1.2	2120.5
50	28.9	22.6	17.2	227.4	600.4	311.3	37.0	2341.5	4675.8	14.4	8276.5
60	20.5	38.0	14.8	234.6	1246.2	215.8	8.5	527.8	10.2	1.1	2317.4
70	22.2	11.4	136.9	47.1	38.2	2.2					258.0
80	2.7	1.9	1.1								5.7
90											
SUM	74.3	79.3	171.1	518.0	2106.4	692.8	466.3	3435.0	5423.2	16.7	12983.1

TABLE VI. TIME FOR  $C_T/\sigma$  VERSUS  $\mu$  BY RATE OF CLIMB AND MISSION SEGMENT

MINUTES FOR $C_T/S$ VS $\mu$		BY RATE OF CLIMB				LESS, BY MISSION SEG. MANUVR
LESS	0.08	0.10	0.12	0.14	SUM	
0.0						
0.05						
0.10	0.2					0.2
0.15	0.6	0.4				1.0
0.20	1.0	0.6				1.6
0.25	0.9	1.1				2.0
0.30	0.5	0.3				0.8
0.35						
SUM	3.2	2.4				5.6

MINUTES FOR $C_T/S$ VS $\mu$		BY RATE OF CLIMB				LESS, BY MISSION SEG. DESCNT
LESS	0.08	0.10	0.12	0.14	SUM	
0.0						
0.05						
0.10						
0.15	0.1	0.3				0.3
0.20	0.8	0.9				1.7
0.25	0.3	0.8				1.2
0.30	0.2					0.2
0.35						
SUM	1.3	2.0				3.3

MINUTES FOR $C_T/S$ VS $\mu$		BY RATE OF CLIMB				LESS, BY MISSION SEG.	SUM
LESS	0.08	0.10	0.12	0.14	SUM		
0.0							
0.05							
0.10	0.2					0.2	
0.15	0.6	0.7				1.3	
0.20	1.8	1.5				3.3	
0.25	1.2	1.9				3.1	
0.30	0.7	0.3				1.0	
0.35							
SUM	4.6	4.4				8.9	

MINUTES FOR $C_T/S$ VS $\mu$		BY RATE OF CLIMB				-2100, BY MISSION SEG. MANUVR
LESS	0.08	0.10	0.12	0.14	SUM	
0.0						
0.05						
0.10	0.2	0.2				0.3
0.15	0.2	1.3				1.6
0.20	0.2	0.9				1.1
0.25	0.2	1.6				1.8
0.30		0.5				0.5
0.35						
SUM	0.8	4.4				5.2

TABLE VI - Continued

MINUTES FOR CT/S VS MU BY RATE OF CLIMB -2100. BY MISSION SEG. DESCNT						
LESS	0.08	0.10	0.12	0.14	SUM	
0.0						
0.05	0.1	0.1				0.2
0.10	0.4					0.4
0.15	0.2	0.1				0.4
0.20	0.4	0.9				1.3
0.25	0.6	1.1				1.7
0.30	0.1	0.7				0.8
0.35						
SUM	1.8	2.9				4.7

MINUTES FOR CT/S VS MU BY RATE OF CLIMB -2100. BY MISSION SEG. SUM						
LESS	0.08	0.10	0.12	0.14	SUM	
0.0						
0.05	0.1	0.1				0.2
0.10	0.5	0.2				0.7
0.15	0.5	1.5				1.9
0.20	0.5	1.8				2.3
0.25	0.8	2.7				3.5
0.30	0.1	1.1				1.2
0.35						
SUM	2.6	7.3				9.9

MINUTES FOR CT/S VS MU BY RATE OF CLIMB -1800. BY MISSION SEG. MANUVR						
LESS	0.08	0.10	0.12	0.14	SUM	
0.0						
0.05		0.1				0.1
0.10	0.3	0.4				0.7
0.15	1.4	1.1				2.5
0.20	1.5	3.5				5.0
0.25	0.9	2.4				3.3
0.30	0.2	0.3				0.4
0.35						
SUM	4.2	7.8				12.0

MINUTES FOR CT/S VS MU BY RATE OF CLIMB -1800. BY MISSION SEG. DESCNT						
LESS	0.08	0.10	0.12	0.14	SUM	
0.0						0.1
0.05		0.1				0.1
0.10	0.1	0.1				0.2
0.15	1.1	0.9				2.0
0.20	1.1		0.2			3.7
0.25	2.0	3.5				5.4
0.30		0.6				0.6
0.35						
SUM	4.3	7.6	0.2			12.1

TABLE VI - Continued

MINUTES FOR CT/S VS MU BY RATE OF CLIMB -1800, BY MISSION SEG. STEADY						
LESS	0.08	0.10	0.12	0.14	SUM	
0.0						
0.05						
0.10						
0.15						
0.20	0.1					0.1
0.25		0.1				0.1
0.30						
0.35						
SUM	0.1	0.1				0.2

MINUTES FOR CT/S VS MU BY RATE OF CLIMB -1800, BY MISSION SEG. SUM						
LESS	0.08	0.10	0.12	0.14	SUM	
0.0						0.1
0.05		0.1				0.2
0.10	0.4	0.2				0.9
0.15	2.5	0.5				4.5
0.20	2.7	2.0				8.8
0.25	2.7	5.9	0.2			8.8
0.30	0.2	5.9				1.1
0.35		0.9				
SUM	8.7	15.5	0.2			24.3

MINUTES FOR CT/S VS MU BY RATE OF CLIMB -1500, BY MISSION SEG. MANUVR						
LESS	0.08	0.10	0.12	0.14	SUM	
0.0	0.4	1.2				1.6
0.05	1.3	2.4				3.7
0.10	1.5	2.1				3.6
0.15	2.3	3.7				5.9
0.20	3.2	7.1				10.3
0.25	1.1	4.2				5.4
0.30	0.2	0.7				0.9
0.35						
SUM	10.0	21.5				31.5

MINUTES FOR CT/S VS MU BY RATE OF CLIMB -1500, BY MISSION SEG. DESCNT						
LESS	0.08	0.10	0.12	0.14	SUM	
0.0	0.1	0.3				0.4
0.05	0.2	0.2				0.4
0.10	0.5	0.3				0.8
0.15	2.5	2.3				4.8
0.20	2.5	6.1				8.6
0.25	3.8	7.1				10.9
0.30	0.3	0.4				0.7
0.35						
SUM	9.9	16.6				26.6

TABLE VI - Continued

MINUTES FOR CT/S VS MU BY RATE OF CLIMB -1500. BY MISSION SEG. STEADY

LESS	0.08	0.10	0.12	0.14	SUM
0.0	0.1				0.1
0.05					
0.10					
0.15					
0.20	0.2	0.4			0.7
0.25		0.6			0.6
0.30					
0.35					
SUM	0.2	1.2			1.4

MINUTES FOR CT/S VS MU BY RATE OF CLIMB -1500. BY MISSION SEG. SUM

LESS	0.08	0.10	0.12	0.14	SUM
0.0	0.5	1.6			2.2
0.05	1.5	2.6			4.1
0.10	2.0	2.4			4.4
0.15	4.8	6.0			10.8
0.20	5.9	13.6			19.5
0.25	4.9	11.9			16.9
0.30	0.5	1.1			1.6
0.35					
SUM	20.1	39.4			59.5

MINUTES FOR CT/S VS MU BY RATE OF CLIMB -1200. BY MISSION SEG. ASCENT

LESS	0.08	0.10	0.12	0.14	SUM
0.0					
0.05					
0.10					
0.15	0.1				0.1
0.20					
0.25					
0.30					
0.35					
SUM	0.1				0.1

MINUTES FOR CT/S VS MU BY RATE OF CLIMB -1200. BY MISSION SEG. MANUVR

LESS	0.08	0.10	0.12	0.14	SUM
0.0	3.6	5.5			9.1
0.05	9.0	12.1			21.1
0.10	10.2	16.1			26.3
0.15	6.4	14.4			20.7
0.20	8.8	14.8			23.6
0.25	3.8	8.6			12.3
0.30	0.5	0.3			0.8
0.35					
SUM	42.2	71.8			114.0

TABLE VI - Continued

MINUTES FOR CT/S VS MU BY RATE OF CLIMB -1200. BY MISSION SEG. DESCNT						
LESS	LESS	0.08	0.10	0.12	0.14	SUM
0.0	0.8	1.1				1.9
0.05	1.2	0.6				1.7
0.10	1.8	1.4				3.2
0.15	5.6	3.3				8.9
0.20	9.1	13.8				22.9
0.25	9.1	21.1				30.2
0.30	0.3	0.7				1.0
0.35						
SUM	28.0	42.0				69.9

MINUTES FOR CT/S VS MU BY RATE OF CLIMB -1200. BY MISSION SEG. STEADY						
LESS	LESS	0.08	0.10	0.12	0.14	SUM
0.0		1.2				1.2
0.05		0.1				0.1
0.10						
0.15		0.6				0.6
0.20	1.0	6.1				7.1
0.25	1.4	5.8				7.3
0.30						
0.35						
SUM	2.4	13.8				16.2

MINUTES FOR CT/S VS MU BY RATE OF CLIMB -1200. BY MISSION SEG. SUM						
LESS	LESS	0.08	0.10	0.12	0.14	SUM
0.0	4.4	7.8				12.2
0.05	10.1	12.8				22.9
0.10	12.0	17.6				29.6
0.15	12.1	18.2				30.3
0.20	18.9	34.7				53.6
0.25	14.3	35.5				49.9
0.30	0.8	1.0				1.8
0.35						
SUM	72.7	127.5				200.2

MINUTES FOR CT/S VS MU BY RATE OF CLIMB -900. BY MISSION SEG. ASCENT						
LESS	LESS	0.08	0.10	0.12	0.14	SUM
0.0	0.1	1.9				2.0
0.05	0.6	0.5				1.2
0.10	0.4	0.9				1.3
0.15	0.5	2.4				2.9
0.20	1.6	4.5				6.1
0.25	0.3	0.9				1.1
0.30	0.1					0.1
0.35						
SUM	3.6	11.1				14.8



TABLE VI - Continued

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				-900. BY MISSION SEG. MANUVR
LESS	0.08	0.10	0.12	0.14	SUM	
LESS						
0.0	23.7	25.1			48.9	
0.05	46.7	47.7	0.1		94.5	
0.10	19.3	20.3	0.1		39.7	
0.15	15.8	19.1			34.9	
0.20	10.3	22.3			32.6	
0.25	4.0	14.8			18.8	
0.30	0.5	1.8			2.4	
0.35						
SUM	120.5	151.2	0.1		271.8	

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				-900. BY MISSION SEG. DESCNT
LESS	0.08	0.10	0.12	0.14	SUM	
LESS						
0.0	2.2	2.5			4.7	
0.05	2.2	2.9	0.1		5.2	
0.10	5.4	4.2			9.6	
0.15	12.3	6.8			19.1	
0.20	15.8	26.6			42.4	
0.25	17.8	33.9			51.8	
0.30	1.1	1.4			2.5	
0.35						
SUM	56.8	78.4	0.1		135.2	

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				-900. BY MISSION SEG. STEADY
LESS	0.08	0.10	0.12	0.14	SUM	
LESS						
0.0	0.9	1.1			2.0	
0.05	0.3	0.3			0.6	
0.10	0.1	0.1			0.2	
0.15	0.3	1.2			1.6	
0.20	2.3	11.6			13.9	
0.25	2.1	10.7			12.9	
0.30	0.4				0.4	
0.35						
SUM	6.5	25.0			31.6	

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				-900. BY MISSION SEG.	SUM
LESS	0.08	0.10	0.12	0.14	SUM		
LESS							
0.0	27.0	30.6			57.6		
0.05	49.8	51.5	0.1		101.5		
0.10	25.2	25.6	0.1		50.8		
0.15	28.9	29.6			58.5		
0.20	30.1	64.9			94.9		
0.25	24.3	60.3			84.6		
0.30	2.2	3.2			5.4		
0.35							
SUM	187.4	265.8	0.2		453.3		

TABLE VI - Continued

MINUTES FOR CT/S VS MU BY RATE OF CLIMB -600. BY MISSION SEG. ASCENT						
	LESS	0.08	0.10	0.12	0.14	SUM
LESS						
0.0	1.8	4.3				6.1
0.05	0.9	3.2				4.1
0.10	1.4	3.2				4.6
0.15	3.0	11.8				14.8
0.20	4.5	21.3				25.8
0.25	1.0	5.2				6.2
0.30						
0.35						
SUM	12.5	48.9				61.5

MINUTES FOR CT/S VS MU BY RATE OF CLIMB -600. BY MISSION SEG. MANUVR						
	LESS	0.08	0.10	0.12	0.14	SUM
LESS						
0.0	79.6	89.9				169.5
0.05	146.7	167.1	0.1			313.9
0.10	85.3	108.2				193.5
0.15	40.5	72.7	0.1			113.4
0.20	30.8	80.9				111.7
0.25	13.1	43.8				56.9
0.30	0.7	0.4				1.0
0.35						
SUM	396.6	563.0	0.2			959.9

MINUTES FOR CT/S VS MU BY RATE OF CLIMB -600. BY MISSION SEG. DESCNT						
	LESS	0.08	0.10	0.12	0.14	SUM
LESS						
0.0	7.6	8.6	0.3			16.6
0.05	7.5	7.0			0.1	14.5
0.10	15.4	9.2				24.6
0.15	28.5	21.8				50.3
0.20	60.2	82.6	0.1			142.8
0.25	50.7	87.9	0.1			138.7
0.30	3.9	6.5				10.4
0.35						
SUM	173.8	223.5	0.4		0.1	397.8

MINUTES FOR CT/S VS MU BY RATE OF CLIMB -600. BY MISSION SEG. STEADY						
	LESS	0.08	0.10	0.12	0.14	SUM
LESS						
0.0	2.4	4.9				7.3
0.05	0.5	1.8				2.3
0.10		1.1				1.1
0.15	0.8	5.8				6.6
0.20	14.0	80.5				94.5
0.25	23.7	60.1				83.8
0.30	0.1	0.3				0.4
0.35						
SUM	41.5	154.5				196.1

TABLE VI - Continued

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				-600. BY MISSION SEG.	SUM
LESS	0.08	0.10	0.12	0.14		SUM	
0.0	91.5	107.7	0.3			199.4	
0.05	155.6	179.1	0.1		0.1	334.8	
0.10	102.1	121.7				223.7	
0.15	72.8	112.1	0.1			185.0	
0.20	109.5	265.3	0.1			374.8	
0.25	88.5	197.0	0.1			285.6	
0.30	4.7	7.2				11.8	
0.35							
SUM	624.5	990.0	0.7		0.1	1615.2	

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				-300. BY MISSION SEG. ASCENT	SUM
LESS	0.08	0.10	0.12	0.14		SUM	
0.0	19.1	35.7				54.8	
0.05	11.5	23.9	0.1			35.4	
0.10	14.3	39.7				54.1	
0.15	44.0	144.4				188.4	
0.20	78.9	276.0				354.9	
0.25	32.4	69.8				102.2	
0.30	0.4	0.3				0.7	
0.35							
SUM	200.5	589.9	0.1			790.5	

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				-300. BY MISSION SEG. MANUVR	SUM
LESS	0.08	0.10	0.12	0.14		SUM	
0.0	325.5	374.8	0.3			700.6	
0.05	512.1	746.1	0.2			1258.4	
0.10	282.0	379.1	0.2			661.3	
0.15	186.4	274.8	0.1			461.2	
0.20	172.7	350.1	0.1			522.9	
0.25	61.9	149.3				211.2	
0.30	2.8	4.0				6.8	
0.35							
SUM	1543.3	2278.1	1.0			3822.5	

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				-300. BY MISSION SEG. DESCNT	SUM
LESS	0.08	0.10	0.12	0.14		SUM	
0.0	26.3	24.8	0.2	0.1	0.1	51.4	
0.05	25.1	20.3	0.2			45.5	
0.10	28.6	14.9	0.1			43.5	
0.15	55.1	44.0				99.1	
0.20	122.5	169.3	0.1			291.9	
0.25	119.8	126.7				246.5	
0.30	6.1	6.1				12.2	
0.35							
SUM	383.4	406.1	0.4	0.1	0.1	790.1	

TABLE VI - Continued

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				-300. BY MISSION SEG. STEADY
LESS	0.08	0.10	0.12	0.14	SUM	
0.0	81.8	96.9			178.7	
0.05	8.4	16.8			25.3	
0.10	0.6	11.3			11.8	
0.15	31.9	156.8			188.7	
0.20	277.9	1023.9			1301.8	
0.25	297.9	764.7			1062.6	
0.30	3.7	15.8			19.5	
0.35						
SUM	702.3	2086.1			2788.4	

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				-300. BY MISSION SEG. SUM
LESS	0.08	0.10	0.12	0.14	SUM	
0.0	452.6	532.2	0.5	0.1	0.1	985.5
0.05	557.1	807.0	0.4			1364.5
0.10	325.5	445.0	0.3			770.7
0.15	317.4	620.0	0.1			937.4
0.20	652.1	1819.3	0.2			2471.5
0.25	511.9	1110.6				1622.4
0.30	13.0	26.2				39.2
0.35						
SUM	2829.5	5360.2	1.5	0.1	0.1	8191.4

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				300. BY MISSION SEG. ASCENT
LESS	0.08	0.10	0.12	0.14	SUM	
0.0	7.6	14.6			22.3	
0.05	4.7	11.5	0.1		16.3	
0.10	15.7	36.4			52.2	
0.15	36.3	131.5			167.9	
0.20	47.2	121.7			168.9	
0.25	6.4	21.7			28.1	
0.30						
0.35						
SUM	118.0	337.5	0.1		455.6	

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				300. BY MISSION SEG. MANUVR
LESS	0.08	0.10	0.12	0.14	SUM	
0.0	76.9	84.8	0.1		161.7	
0.05	153.6	159.5	0.1		313.2	
0.10	103.7	97.2	0.1		201.0	
0.15	70.2	87.3	0.1		157.5	
0.20	51.6	86.0			137.6	
0.25	10.8	22.5			33.3	
0.30	0.4	0.3			0.7	
0.35						
SUM	467.0	537.6	0.3		1005.0	

TABLE VI - Continued

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				300. BY MISSION SEG. DESCNT
LESS	0.08	0.10	0.12	0.14	SUM	
0.0	6.6	4.7			11.3	
0.05	4.5	3.1		0.1	7.6	
0.10	3.7	1.7		0.1	5.5	
0.15	7.4	3.5			10.9	
0.20	9.9	18.1			28.0	
0.25	9.4	11.3			20.7	
0.30	0.3	0.1			0.4	
0.35						
SUM	41.8	42.5		0.1	84.3	

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				300. BY MISSION SEG. STEADY
LESS	0.08	0.10	0.12	0.14	SUM	
0.0	2.8	6.9			9.8	
0.05	1.1	1.6			2.7	
0.10		1.2			1.2	
0.15	0.9	9.7			10.7	
0.20	18.1	78.5			96.6	
0.25	19.7	38.7			58.4	
0.30	0.4				0.4	
0.35						
SUM	43.1	136.6			179.8	

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				300. BY MISSION SEG.	SUM
LESS	0.08	0.10	0.12	0.14	SUM		
0.0	93.9	111.0	0.1		205.0		
0.05	163.8	175.7	0.1	0.1	339.7		
0.10	123.1	136.6	0.1	0.1	259.9		
0.15	114.8	232.0	0.1		347.0		
0.20	124.7	304.3			431.1		
0.25	46.3	94.2			140.5		
0.30	1.2	0.4			1.6		
0.35							
SUM	670.0	1054.3	0.4	0.1	1724.7		

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				600. BY MISSION SEG. ASCENT
LESS	0.08	0.10	0.12	0.14	SUM	
0.0	1.3	3.1	0.1		4.6	
0.05	1.9	3.8			5.6	
0.10	7.2	14.2			21.4	
0.15	13.6	38.6			52.2	
0.20	14.9	35.7			50.6	
0.25	3.2	3.2			6.3	
0.30	0.1				0.1	
0.35						
SUM	42.1	98.5	0.1		140.8	

TABLE VI - Continued

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				600. BY MISSION SEG. MANUVR
LESS	LESS	0.08	0.10	0.12	0.14	SUM
0.0	24.2	28.0				52.1
0.05	48.4	47.6	0.1			96.1
0.10	22.2	20.7	0.1			43.0
0.15	23.0	19.3				42.3
0.20	12.7	23.8				36.5
0.25	3.0	4.2				7.2
0.30						
0.35						
SUM	133.6	143.6	0.1			277.3

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				600. BY MISSION SEG. DESCNT
LESS	LESS	0.08	0.10	0.12	0.14	SUM
0.0	1.5	1.6				3.1
0.05	0.9	0.5				1.3
0.10	1.0	0.5	0.1			1.6
0.15	2.4	0.8				3.2
0.20	2.1	3.9				6.0
0.25	1.7	2.2				3.9
0.30		0.2				0.2
0.35						
SUM	9.6	9.6	0.1			19.2

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				600. BY MISSION SEG. STEADY
LESS	LESS	0.08	0.10	0.12	0.14	SUM
0.0	0.7	1.0				1.6
0.05	0.2	0.3				0.5
0.10		0.1				0.1
0.15	0.3	0.8				1.1
0.20	3.3	11.5				14.8
0.25	2.5	6.7				9.2
0.30	0.1					0.1
0.35						
SUM	7.1	20.3				27.4

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				600. BY MISSION SEG.	SUM
LESS	LESS	0.08	0.10	0.12	0.14	SUM	
0.0	27.7	33.6	0.1			61.5	
0.05	51.3	52.1	0.1			103.6	
0.10	30.4	35.6	0.1			66.1	
0.15	39.3	59.5				98.8	
0.20	33.0	74.8				107.8	
0.25	10.4	16.2				26.6	
0.30	0.2	0.2				0.4	
0.35							
SUM	192.4	272.1	0.3			464.7	

TABLE VI - Continued

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				900. BY MISSION SEG. ASCENT
LESS	0.08	0.10	0.12	0.14	SUM	
0.0	0.6	2.0			2.7	
0.05	0.4	0.8			1.2	
0.10	2.7	5.0			7.8	
0.15	5.2	15.3			20.6	
0.20	4.6	18.2			22.7	
0.25	0.6	1.2			1.8	
0.30						
0.35						
SUM	14.2	42.5			56.7	

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				900. BY MISSION SEG. MANUVR
LESS	0.08	0.10	0.12	0.14	SUM	
0.0	4.4	4.6			9.0	
0.05	11.4	10.6			22.1	
0.10	11.8	12.1			23.9	
0.15	10.9	14.2	0.1		25.2	
0.20	5.6	9.9			15.5	
0.25	1.2	2.1			3.3	
0.30						
0.35						
SUM	45.3	53.6	0.1		99.0	

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				900. BY MISSION SFG. DESCNT
LESS	0.08	0.10	0.12	0.14	SUM	
0.0						
0.05						
0.10						
0.15	0.1				0.1	
0.20						
0.25						
0.30						
0.35						
SUM	0.1				0.1	

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				900. BY MISSION SEG. STEADY
LESS	0.08	0.10	0.12	0.14	SUM	
0.0	0.2	0.8			1.0	
0.05		0.1			0.1	
0.10						
0.15		0.3			0.3	
0.20	1.9	8.0			9.9	
0.25	1.5	3.3			4.8	
0.30						
0.35						
SUM	3.6	12.6			16.2	

TABLE VI - Continued

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				900. BY MISSION SEG.	SUM
LESS	0.08	0.10	0.12	0.14		SUM	
0.0	5.2	7.5				12.7	
0.05	11.9	11.5				23.4	
0.10	14.5	17.1				31.6	
0.15	16.2	29.9	0.1			46.2	
0.20	12.1	36.1				48.2	
0.25	3.3	6.6				10.0	
0.30							
0.35							
SUM	63.2	108.7	0.1			172.0	

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				1200. BY MISSION SEG. ASCENT
LESS	0.08	0.10	0.12	0.14		SUM
0.0		0.5				0.5
0.05						
0.10	1.5	1.6				3.0
0.15	2.3	7.5				9.8
0.20	2.4	3.7				6.1
0.25	0.2	0.4				0.6
0.30						
0.35						
SUM	6.3	13.7				20.0

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				1200. BY MISSION SEG. MANUVR
LESS	0.08	0.10	0.12	0.14		SUM
0.0	0.8	0.6				1.5
0.05	1.2	1.7				2.9
0.10	1.9	1.2				3.1
0.15	3.1	3.3				6.4
0.20	0.9	3.5				4.4
0.25	0.4	0.7				1.1
0.30						
0.35						
SUM	8.3	11.1				19.4

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				1200. BY MISSION SEG. STEADY
LESS	0.08	0.10	0.12	0.14		SUM
0.0						
0.05						
0.10						
0.15		0.3				0.3
0.20	0.1	1.2				1.3
0.25	0.3	0.6				1.0
0.30						
0.35						
SUM	0.4	2.1				2.6



TABLE VI - Continued

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				1200. BY MISSION SEG.	SUM
LESS	LESS	0.08	0.10	0.12	0.14		
0.0	0.8	1.2					
0.05	1.2	1.7					2.0
0.10	3.4	2.8					2.9
0.15	5.4	11.2					6.2
0.20	3.4	8.4					16.6
0.25	0.9	1.7					11.8
0.30							2.6
0.35							
SUM	15.0	27.0					42.0

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				1500. BY MISSION SEG. ASCENT	SUM
LESS	LESS	0.08	0.10	0.12	0.14		
0.0							
0.05							
0.10	0.1	0.3					
0.15	0.9	2.8					0.4
0.20	1.3	1.5					3.7
0.25	0.1	0.1					2.8
0.30							0.2
0.35							
SUM	2.4	4.7					7.1

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				1500. BY MISSION SEG. MANUVR	SUM
LESS	LESS	0.08	0.10	0.12	0.14		
0.0							
0.05	0.1						0.1
0.10	0.3	0.1					0.4
0.15	0.8	0.3					1.3
0.20	0.5	0.6					1.1
0.25	0.2	0.4					0.6
0.30	0.1						0.1
0.35							
SUM	1.9	1.7					3.6

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				1500. BY MISSION SEG. STEADY	SUM
LESS	LESS	0.08	0.10	0.12	0.14		
0.0							
0.05							
0.10							
0.15							
0.20		0.2					
0.25	0.1						0.2
0.30							0.1
0.35							
SUM	0.1	0.2					0.3

TABLE VI - Continued

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				1500. BY MISSION SEG.	SUM
LESS	0.08	0.10	0.12	0.14	SUM		
0.0							
0.05	0.1					0.1	
0.10	0.4	0.4				0.8	
0.15	1.7	3.3				5.0	
0.20	1.8	2.4				4.2	
0.25	0.4	0.5				0.9	
0.30	0.1					0.1	
0.35							
SUM	4.4	6.6				11.1	

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				1800. BY MISSION SEG. ASCENT	SUM
LESS	0.08	0.10	0.12	0.14	SUM		
0.0							
0.05							
0.10	0.1					0.1	
0.15	0.6	0.8				1.4	
0.20	0.3	0.5				0.8	
0.25	0.1	0.1				0.2	
0.30							
0.35							
SUM	1.1	1.3				2.5	

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				1800. BY MISSION SEG. MANUVR	SUM
LESS	0.08	0.10	0.12	0.14	SUM		
0.0							
0.05							
0.10		0.1				0.1	
0.15	0.4	0.1				0.6	
0.20	0.1	0.7				0.8	
0.25		0.1				0.1	
0.30							
0.35							
SUM	0.6	0.9				1.5	

MINUTES FOR CT/S VS MU		BY RATE OF CLIMB				1800. BY MISSION SEG.	SUM
LESS	0.08	0.10	0.12	0.14	SUM		
0.0							
0.05							
0.10	0.1	0.1				0.2	
0.15	1.1	0.9				1.9	
0.20	0.4	1.1				1.6	
0.25	0.1	0.2				0.3	
0.30							
0.35							
SUM	1.7	2.3				4.0	

TABLE VI - Continued

MINUTES FOR CT/S VS MU BY RATE OF CLIMB 2100. BY MISSION SEG. ASCENT						
LESS	0.08	0.10	0.12	0.14	SUM	
0.0						
0.05						
0.10	0.1					0.1
0.15	0.3	0.1				0.5
0.20	0.2					0.2
0.25	0.2					0.2
0.30						
0.35						
SUM	0.8	0.1				0.9

MINUTES FOR CT/S VS MU BY RATE OF CLIMB 2100. BY MISSION SEG. MANUVR						
LESS	0.08	0.10	0.12	0.14	SUM	
0.0						
0.05						
0.10						
0.15	0.6					0.6
0.20	0.3	0.2				0.4
0.25	0.2	0.1				0.3
0.30						
0.35						
SUM	1.1	0.2				1.3

MINUTES FOR CT/S VS MU BY RATE OF CLIMB 2100. BY MISSION SFG. SUM						
LESS	0.08	0.10	0.12	0.14	SUM	
0.0						
0.05						
0.10	0.1					0.1
0.15	1.0	0.1				1.1
0.20	0.5	0.2				0.6
0.25	0.4	0.1				0.4
0.30						
0.35						
SUM	1.9	0.3				2.2

MINUTES FOR CT/S VS MU BY RATE OF CLIMB SUM. BY MISSION SEG. SUM						
LESS	0.08	0.10	0.12	0.14	SUM	
0.0	703.8	833.3	0.9	0.1	0.1	1538.2
0.05	1002.5	1294.4	0.8	0.1	0.1	2297.8
0.10	639.9	805.5	0.6	0.1		1446.0
0.15	618.9	1126.9	0.5			1746.2
0.20	999.3	2634.1	0.4			3633.8
0.25	710.6	1545.4	0.1			2256.1
0.30	23.6	41.6				65.2
0.35						
SUM	4698.6	8281.3	3.3	0.2	0.1	11298.5

TABLE VII. TIME FOR ENGINE TORQUE VERSUS AIRSPEED BY WEIGHT AND ALTITUDE

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT						LESS,	BY ALTITUDE		1000
LESS	20	30	40	50	63.5	75	80	SUM	
LESS	0.9	1.1	1.6	4.7	1.1	0.5		10.0	
40	1.6	0.9	0.2	0.2	1.0			3.8	
60	0.7	0.4	0.1	0.1	0.2			1.4	
70	0.2	0.7	0.1	0.3	0.7			2.0	
75	0.1	0.4	0.2	0.4	0.1			1.2	
80	0.2	0.1	1.2	1.0	0.1			2.5	
85	0.2		1.2	0.8	0.1			2.2	
90	0.1	0.2	0.4	1.1	0.1			1.8	
95	0.2	0.1	0.5	1.6				2.4	
100	0.1		0.2	0.8	0.6			1.6	
105	0.2		0.3	0.5	2.2			3.2	
110			0.1	0.4	1.4	0.1		2.9	
115					0.7	0.2		0.9	
120						0.2		0.2	
124									
SUM	4.3	3.9	6.0	12.0	8.3	1.8	0.1	36.2	

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT						LESS,	BY ALTITUDE		2000
LESS	20	30	40	50	63.5	75	80	SUM	
LESS	9.7	5.4	4.0	10.2	5.2	0.5		28.9	
40	6.1	7.9	4.4	6.8	6.6	0.9		32.7	
60	3.4	2.9	5.2	9.4	8.1	0.4		29.5	
70	1.5	3.2	5.2	6.3	2.8	0.1		19.1	
75	0.8	1.7	2.5	7.0	3.9	0.3		15.7	
80	0.3	1.1	3.5	15.9	10.8			31.7	
85	0.3	1.3	4.1	17.8	15.1	1.6	0.1	40.2	
90	0.1	0.5	3.8	18.0	19.7	0.4		42.4	
95	0.1	0.8	2.1	16.0	20.8	0.2		39.9	
100	0.3	1.2	1.3	7.9	20.3	0.9		31.9	
105		1.0	1.1	2.7	30.3	0.9		35.9	
110		0.1	0.3	1.3	45.4	0.7		47.8	
115		0.1	0.2	1.0	29.9	3.6		34.8	
120				0.1	3.3	1.5		5.0	
124		0.1		0.2	1.3			1.5	
SUM	16.7	26.6	37.5	120.6	293.5	12.0	0.1	437.0	

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT						LESS,	BY ALTITUDE		4000
LESS	20	30	40	50	63.5	75	80	SUM	
LESS				0.1				0.1	
40				0.5	0.1			0.6	
60				0.4				0.4	
70				2.0				2.0	
75									
80			0.6	1.8				2.3	
85			0.6	2.9				3.5	
90		1.0	1.1	11.0				13.1	
95		0.2	0.2	13.0	0.4			13.9	
100				5.0				5.0	
105				2.2	0.3			2.5	
110				1.3	0.9			2.2	
115				0.3	1.2			1.5	
120				0.2				0.2	
124									
SUM		1.2	2.5	40.7	2.9			47.4	

TABLE VII - Continued

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT							LFSS.	BY ALTITUDE		SUM
LESS	20	30	40	50	63.5	75	80	SUM		
LESS	4.6	6.5	5.6	15.0	6.2	1.0		38.9		
40	7.7	8.9	4.5	7.0	7.6	0.9		36.6		
60	4.1	3.3	5.2	9.6	8.8	0.4		31.4		
70	1.7	3.9	5.2	6.5	3.9	0.1		21.5		
75	0.8	1.6	2.8	7.4	6.0	0.3		18.9		
80	0.5	1.2	4.7	17.5	12.7			36.6		
85	0.4	1.3	5.2	19.3	18.1	1.6	0.1	45.9		
90	0.1	0.7	5.3	20.2	30.7	0.4		57.3		
95	0.3	0.8	2.8	17.8	33.8	0.7		56.2		
100	0.4	1.2	1.5	8.7	25.8	0.9		38.5		
105	0.2	1.0	1.4	3.2	34.7	1.2		41.7		
110		0.1	0.3	1.8	48.3	2.4	0.1	52.9		
115		0.1	0.2	1.0	30.9	5.0		37.2		
120				0.1	3.5	1.8		5.4		
124		0.1		0.2	1.3			1.5		
SUM	20.9	30.5	44.7	135.1	272.5	16.7	0.1	520.5		

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT							2000 .	BY ALTITUDE		LESS
LESS	20	30	40	50	63.5	75	80	SUM		
LESS	0.1	0.3	0.1	0.2	0.5	0.1		1.2		
40	0.3		0.4	0.7	0.3			1.7		
60	0.1	0.1		0.2				0.4		
70		0.1		0.1				0.1		
75		0.1	0.2	0.2				0.4		
80		0.1	0.1	0.3				0.5		
85			0.1	0.6	0.3			1.0		
90			0.2		0.3			0.5		
95				0.6	0.2			0.8		
100				0.1	0.4			0.5		
105					0.8	0.1		0.9		
110					0.1	0.9		1.0		
115					0.3			0.3		
120										
124										
SUM	0.5	0.6	1.0	2.9	3.3	1.1		9.3		

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT							2000 .	BY ALTITUDE		1000 .
LESS	20	30	40	50	63.5	75	80	SUM		
LESS	0.8	1.6	8.6	36.1	90.9	40.7	2.4	184.7		
40	2.2	2.5	7.4	12.7	9.3	1.9		36.0		
60	0.8	2.1	2.1	4.0	3.3	0.9	0.1	13.3		
70	0.2	1.2	1.2	1.9	2.1	0.3		7.0		
75	0.1	1.1	1.2	2.0	3.4			7.7		
80	0.2	0.4	0.7	3.3	2.5	0.2		7.2		
85	0.1	0.5	1.2	1.5	4.1	0.1		7.5		
90	0.1	0.5	0.8	1.9	2.9			6.2		
95		0.2	0.5	4.5	6.4			11.6		
100		0.1	0.4	1.4	4.8			6.6		
105				0.7	3.7	1.2		5.6		
110		0.1		0.1	0.7			0.8		
115			0.1		0.3			0.4		
120					0.6			0.6		
124			0.1		0.1			0.2		
SUM	4.8	10.3	24.2	70.1	135.2	45.4	3.6	295.5		

TABLE VII - Continued

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT 2000 ,										BY ALTITUDE 2000	
	LESS	20	30	40	50	63.5	75	80	SUM		
LESS	5.0	10.4	26.5	68.4	128.9	66.6	4.7	1.7	312.1		
40	6.6	14.2	26.5	45.5	27.1	4.6	0.8	0.1	125.2		
60	3.9	6.3	13.3	32.3	24.8	2.3	0.1		83.1		
70	1.0	4.2	8.5	23.0	20.9	1.2			58.8		
75	0.6	2.4	9.4	28.2	26.9	4.3			71.8		
80	0.5	1.8	7.3	28.9	34.2	2.6			75.4		
85	0.4	0.9	6.9	25.3	43.7	3.2			80.3		
90	0.9	0.8	4.8	18.8	62.6	6.5			94.4		
95	0.1	0.4	2.3	11.6	76.5	12.2			103.2		
100		0.4	2.7	5.9	59.9	10.3	0.1		79.2		
105		0.3	1.0	3.2	37.9	11.2	0.1		49.7		
110		0.1	0.2	1.0	34.7	9.1	0.2		20.4		
115			0.3	0.5	3.1	2.8			6.7		
120				0.1	0.6	1.2			2.0		
124					0.1				0.1		
SUM	18.8	42.1	109.6	292.8	553.1	138.0	6.1	1.8	1162.3		

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT 2000 ,										BY ALTITUDE 4000	
	LESS	20	30	40	50	63.5	75	80	SUM		
LESS		0.1	0.1	0.4	0.2	0.1			0.7		
40				0.1	0.2				0.3		
60		0.1	0.2	0.1	1.6	0.8			2.8		
70		0.1	0.1	0.1	1.9	0.1			2.2		
75		0.1		1.5	3.8	0.2			5.6		
80			0.1	3.6	7.9	0.2			11.7		
85		0.4	0.6	1.4	15.1	0.2			17.7		
90			0.2	0.9	23.0	0.9			25.0		
95				2.6	30.5	2.4			35.5		
100		0.1		4.1	35.4	0.8			40.5		
105		0.4	0.6	2.0	25.2	0.9			29.0		
110		0.1	0.8	0.4	4.1	0.8			6.2		
115					0.8				0.8		
120											
124											
SUM		1.2	2.5	17.2	149.7	7.6			178.1		

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT 2000 ,										BY ALTITUDE 8000	
	LESS	20	30	40	50	63.5	75	80	SUM		
LESS											
40											
60											
70											
75											
80											
85											
90					0.1				0.1		
95					0.4				0.4		
100											
105											
110											
115											
120											
124											
SUM					0.6				0.6		

TABLE VII - Continued

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT 2000 ,										BY ALTITUDE		SUM
	LESS	20	30	40	50	63.5	75	80	SUM			
LESS	5.9	12.3	35.2	105.1	220.4	107.5	8.3	4.1	498.7			
40	8.9	16.7	34.3	59.0	36.9	6.5	0.8	0.1	163.2			
60	4.8	8.6	15.5	36.6	29.8	4.1	0.1	0.1	99.5			
70	1.2	5.5	9.8	25.2	24.9	1.6			63.1			
75	0.7	3.6	10.8	31.9	34.1	4.5			85.5			
80	0.7	2.4	8.1	36.0	44.6	3.0			94.8			
85	0.4	1.8	8.8	28.7	63.1	3.5			106.4			
90	0.9	1.3	6.0	21.6	88.9	7.4			126.2			
95	0.1	0.6	2.8	19.3	114.1	14.6			151.6			
100		0.5	3.1	11.5	100.5	11.1	0.1		126.9			
105		0.7	1.6	5.8	63.7	13.4	0.1		85.3			
110		0.3	1.0	1.4	14.7	10.8	0.2		28.4			
115			0.4	0.5	4.5	2.8			8.2			
120				0.1	1.3	1.2			2.6			
124			0.1		0.2				0.3			
SUM	23.6	54.2	137.3	382.9	841.7	192.1	9.7	4.2	1645.8			

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT 2200 ,										BY ALTITUDE		LESS
	LESS	20	30	40	50	63.5	75	80	SUM			
LESS	0.2	0.2		1.3	3.6	3.0	0.1		8.4			
40	0.5	0.1	0.4	1.0	1.2	0.8	0.1		4.1			
60		0.3		0.7	0.9	0.2			2.1			
70	0.1	0.1	0.2	0.1	0.5	0.1			1.0			
75		0.2	0.1	0.2	0.5				1.0			
80		0.1	0.4	0.2	0.8				1.4			
85		0.3	0.2		0.7				1.2			
90		0.1	0.1	0.5	0.2	0.2			1.0			
95		0.1	0.2	0.2	0.5				0.9			
100		0.1	0.1		0.9	0.8			1.9			
105		0.1	0.1	0.1	0.2	0.3			0.6			
110		0.1			0.5	0.7			1.3			
115						0.2			0.2			
120												
124												
SUM	0.8	1.5	1.5	4.2	10.5	6.4	0.2		25.2			

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT 2200 ,										BY ALTITUDE		1000
	LESS	20	30	40	50	63.5	75	80	SUM			
LESS	1.3	8.1	44.0	116.9	237.7	134.9	18.1	8.2	569.3			
40	4.7	10.9	45.7	63.5	48.5	8.5	0.8	0.4	183.0			
60	2.2	5.2	13.2	23.1	16.4	2.4	0.1	0.2	63.0			
70	0.7	2.0	4.7	10.2	9.6	1.0			28.3			
75	0.6	1.3	3.5	8.4	11.3	0.6			25.9			
80	0.4	0.9	2.6	8.6	9.8	2.1	0.1		24.5			
85	0.2	0.8	2.2	3.7	7.0	0.2	0.1		14.2			
90	0.2	0.9	1.2	5.3	8.7	0.8	0.2		17.3			
95	0.4	0.2	1.8	2.1	18.3	4.2	0.3		27.3			
100		0.2	1.0	2.0	26.3	10.7	0.1		40.2			
105		0.2	0.5	1.4	17.5	20.1			39.6			
110		0.1	0.1	0.5	6.7	3.6			10.9			
115			0.1	0.2	0.6	1.0			1.9			
120					0.3	0.6			0.9			
124					0.3	1.6			1.9			
SUM	10.6	30.8	120.6	246.0	419.1	192.4	19.8	8.8	1048.1			

TABLE VII - Continued

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT 2200 .								BY ALTITUDE		2000
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
LESS	7.4	27.3	118.6	373.6	735.3	440.2	68.8	27.4	1798.6	
40	13.4	31.8	120.2	279.8	260.1	38.1	2.2	2.2	747.9	
60	7.8	15.7	40.3	105.0	120.5	14.4	0.4	0.3	304.4	
70	3.8	7.5	20.3	63.8	68.6	8.3	0.3	0.1	172.7	
75	2.6	6.1	16.6	63.9	101.0	9.0	0.2	0.1	199.5	
80	2.4	5.5	19.0	72.2	121.0	10.2	0.6	0.1	230.9	
85	1.6	6.1	17.6	73.0	176.5	10.5	0.2		285.5	
90	0.7	4.2	14.8	63.9	238.8	16.5	0.3		339.2	
95	0.5	3.3	10.6	49.3	332.7	44.0	0.2		440.5	
100	0.3	1.7	6.4	31.6	299.2	84.9	0.9		425.0	
105	0.1	1.1	3.2	18.9	171.5	64.5	1.5	0.2	260.9	
110	0.4	0.5	1.0	7.6	68.6	27.3	1.0	0.2	106.7	
115		0.3	0.5	1.7	18.9	13.4	1.2	0.2	36.3	
120			0.3	0.8	6.1	5.8			13.0	
124			0.3	0.6	3.1	0.2			4.1	
SUM	41.1	111.2	389.6	1205.5	2722.1	787.2	77.9	30.6	5365.2	

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT 2200 .								BY ALTITUDE		4000
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
LESS		0.2	0.5	1.1	3.2	2.0	0.1	0.1	7.3	
40		0.4	2.2	3.9	2.3	0.8			9.5	
60	0.2	0.3	0.4	8.5	5.6	1.1			16.1	
70	0.1	0.2	0.7	8.3	8.3	0.2			17.7	
75	0.1	0.6	5.2	12.3	13.0	0.4			31.6	
80	0.3	0.5	1.4	13.7	20.3	0.9			37.2	
85	0.2	0.1	0.7	15.6	43.6	0.9			61.0	
90	0.3	0.2	3.3	22.2	87.3	5.8			119.1	
95	0.1	0.1	2.0	30.6	90.2	10.5			133.4	
100	0.1	0.1	0.2	8.8	43.3	9.8			62.2	
105	0.1	0.7	0.2	3.0	18.9	13.2			36.1	
110		0.1	0.7		13.6	7.3			21.7	
115			0.1	0.3	4.4	1.3			6.1	
120					1.4				1.4	
124					0.1				0.1	
SUM	1.3	3.4	17.6	128.2	355.6	54.2	0.1	0.1	560.4	

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT 2200 .								BY ALTITUDE		SUM
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
LESS	8.9	35.9	163.1	492.9	979.9	580.1	87.2	35.7	2383.7	
40	18.7	43.2	168.4	348.2	312.1	48.1	3.1	2.6	944.5	
60	10.2	21.5	54.0	137.4	143.4	18.0	0.5	0.5	385.5	
70	4.6	9.8	25.8	82.4	87.0	9.6	0.3	0.1	219.6	
75	3.3	8.2	25.4	84.9	125.9	10.0	0.2	0.1	258.0	
80	3.1	7.0	23.4	94.7	151.9	13.2	0.7	0.1	294.1	
85	1.9	7.2	20.6	92.3	227.8	11.6	0.3		361.8	
90	1.2	5.3	19.3	91.9	335.0	23.3	0.5		476.6	
95	0.9	3.7	14.5	82.0	441.7	58.7	0.5		602.1	
100	0.4	2.1	7.7	42.3	369.7	106.2	1.0		529.4	
105	0.2	2.0	4.0	23.3	208.0	98.1	1.5	0.2	337.2	
110	0.4	0.8	1.7	8.1	89.5	38.9	1.0	0.2	140.5	
115		0.3	0.7	2.2	23.9	16.0	1.2	0.2	44.5	
120			0.3	0.8	7.8	6.3			15.2	
124			0.3	0.6	3.5	1.8			6.2	
SUM	53.9	146.9	529.4	1583.9	3507.2	1040.1	98.0	39.5	6998.9	



TABLE VII - Continued

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT 2400 .						BY ALTITUDE			LESS
LESS	20	30	40	50	63.5	75	80	SUM	
40	0.2	1.0	0.4	1.9	0.5			2.8	
60	0.1		1.2	0.4				2.8	
70			0.3	0.3				0.7	
75				0.8				0.8	
80				0.4				0.4	
85			0.4	1.3				1.8	
90			0.5	2.0				2.5	
95				0.9	0.4			1.3	
100				0.2	0.2			0.4	
105				0.4	0.1			0.5	
110					0.3			0.3	
115									
120									
124									
SUM	0.3	1.0	2.9	8.6	1.6			14.4	

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT 2400 .						BY ALTITUDE			1000
LESS	20	30	40	50	63.5	75	80	SUM	
40	1.0	3.2	12.5	40.4	112.6	100.3	21.1	16.5	307.7
60	1.8	5.5	14.7	27.9	28.9	7.8	0.1	0.4	87.2
70	0.7	2.9	7.2	10.7	17.6	2.7			41.9
75	0.1	1.0	2.2	7.0	11.1	1.8			23.4
80	0.4	0.4	1.6	7.1	10.3	1.3	0.1		21.2
85	0.5	1.3	6.1	12.2	1.0				21.1
90	0.1	0.8	1.4	5.4	16.2	2.3			26.2
95	0.4	1.7	4.7	16.6	0.8				24.3
100	0.4	0.9	4.6	20.4	3.1				29.4
105	0.1	0.9	0.8	10.8	2.3	0.4			15.3
110		0.6	0.3	3.5	1.5				6.0
115		0.4	0.2	1.5	0.6				2.8
120		0.5	0.2	1.2	0.2				2.0
124			0.1	0.5	0.3				0.6
SUM	4.1	15.3	46.1	115.5	263.9	125.8	21.7	16.9	609.4

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT 2400 .						BY ALTITUDE			2000
LESS	20	30	40	50	63.5	75	80	SUM	
40	3.2	6.7	23.5	104.9	260.8	176.2	41.7	24.2	641.3
60	4.0	9.7	21.6	57.0	87.7	23.2	1.0	0.7	204.9
70	2.5	6.5	20.2	41.1	76.9	13.8	0.1		161.1
75	1.7	3.3	12.7	37.6	71.6	9.5	0.4	0.1	136.9
80	0.6	2.7	13.3	39.0	111.0	13.5	0.1		180.3
85	0.6	2.5	12.5	64.3	171.7	12.1	0.2		263.9
90	0.8	2.1	10.2	50.0	211.6	16.5	0.3		291.5
95	0.5	1.3	5.3	39.6	222.4	20.8	0.3		290.1
100	1.1	1.0	4.2	21.4	197.3	40.3	1.5		266.9
105	0.6	0.6	3.0	10.9	123.9	49.9	0.1		189.0
110	0.3	0.5	0.9	4.6	63.4	31.4			101.0
115	0.1	0.1	0.6	1.4	28.9	10.7	0.7		42.4
120		0.1	0.1	0.5	13.9	1.3			15.9
124			0.6	1.5	0.8				2.9
SUM	16.0	37.1	128.1	473.1	1643.0	421.0	46.3	25.1	2789.6

TABLE VII - Continued

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT 2400 , BY ALTITUDE 4000									
LESS	LESS	20	30	40	50	63.5	75	80	SUM
				0.1	0.9	0.1	0.2	0.1	1.4
40				0.6	1.7	3.7			6.0
60			3.6	1.5	8.8	1.6			15.4
70		0.1	0.7	3.3	8.1	0.9			13.2
75	0.3	0.0	3.3	7.7	11.9	1.0			24.2
80	0.2	0.3	1.8	7.0	23.1	2.6			35.0
85			1.4	8.2	32.6	1.0			43.3
90	0.1		0.5	12.6	40.1	2.9			56.2
95		0.1	1.3	8.4	37.4	6.8			54.0
100	0.1	0.1	0.9	4.6	25.0	6.3			36.9
105			0.2	2.2	13.3	1.5	0.2		17.5
110	0.1		0.1	0.2	2.6	0.3			3.3
115					0.2				0.2
120		0.1	0.1		0.2				0.3
124				0.1					0.1
SUM	0.7	0.8	13.9	56.4	205.6	28.7	0.4	0.1	306.6

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT 2400 , BY ALTITUDE 4000									
LESS	LESS	20	30	40	50	63.5	75	80	SUM
	4.1	9.9	36.0	145.9	376.2	277.2	63.1	40.8	953.2
40	5.8	15.5	37.3	86.7	118.7	34.8	1.1	1.1	300.8
60	3.3	9.6	31.0	53.6	103.6	18.1	0.1		219.2
70	1.8	4.4	15.7	48.0	91.7	12.2	0.4	0.1	174.2
75	1.3	3.1	18.2	53.8	133.6	15.8	0.2		226.1
80	0.8	3.4	15.6	77.8	208.4	15.6	0.2		321.8
85	0.9	2.9	13.0	64.2	262.3	19.8	0.3		363.5
90	0.5	1.7	7.6	56.9	280.0	24.9	0.3		371.9
95	1.1	1.5	6.4	34.4	255.3	50.4	1.5		350.7
100	0.7	0.8	4.8	16.3	160.2	58.6	0.5		241.7
105	0.3	0.5	1.7	7.2	80.2	34.7	0.2		124.8
110	0.2	0.1	1.1	1.9	33.0	11.6	0.7		48.5
115		0.1	0.5	0.6	15.2	1.5			18.0
120		0.1	0.1	0.7	2.2	0.8			3.8
124				0.2	0.7	1.0			1.8
SUM	20.8	53.5	189.0	648.0	2111.2	577.1	68.5	42.0	3720.0

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT 2600 , BY ALTITUDE 4000									
LESS	LESS	20	30	40	50	63.5	75	80	SUM
40									
60									
70									
75									
80						0.8			0.8
85						0.8			0.8
90						0.5			0.5
95									
100									
105									
110									
115									
120									
124									
SUM						2.1			2.1

TABLE VII - Continued

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT 2600 ,									
BY ALTITUDE 1000									
	LESS	20	30	40	50	63.5	75	80	SUM
LESS		0.1	0.9	0.8	2.5	1.1	1.6	0.3	7.2
40	0.1	0.2	0.7	1.7	2.0	0.3			5.0
60				0.2	1.6	0.4			2.3
70				0.1	0.1	0.1			0.3
75				0.3	0.4				0.7
80			0.1	0.3	0.7	0.1			1.2
85				0.1	1.0	0.3			1.4
90				0.5	1.2	0.1			1.8
95					0.1				0.1
100									
105									
110									
115									
120									
124									
SUM	0.1	0.3	1.6	4.0	9.6	2.5	1.6	0.3	20.1

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT 2600 ,									
BY ALTITUDE 2000									
	LESS	20	30	40	50	63.5	75	80	SUM
LESS		0.2	0.1	0.7	1.5	2.4	0.4	0.2	5.6
40	0.1	0.2	0.7	2.9	4.2	1.2		0.1	9.4
60		0.1	0.5	5.5	8.0	0.3			14.4
70		0.2	0.7	3.5	9.0	1.4			14.9
75		0.1	0.7	0.5	12.7	0.3			14.2
80		0.1	0.1	0.6	6.1	0.7			7.6
85			1.1	1.1	3.2	1.4			6.8
90			0.4	1.1	0.9				2.4
95			0.1	0.4	0.4				0.9
100									
105									
110									
115									
120									
124									
SUM	0.1	0.9	4.3	16.3	46.0	7.8	0.4	0.3	76.3

TABLE VII - Continued

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT							2600 ,			BY ALTITUDE	SUM
	LESS	20	30	40	50	63.5	75	80	SUM		
LESS		0.3	1.0	1.5	4.0	3.5	2.0	0.5	12.8		
40	0.2	0.4	1.3	4.6	6.2	1.6		0.1	14.5		
60		0.1	0.5	5.7	9.7	0.8			16.7		
70		0.2	0.7	3.6	9.1	1.6			15.2		
75		0.1	0.7	0.8	13.1	0.3			15.0		
80		0.1	0.2	1.0	7.5	0.8			9.5		
85			1.1	1.2	5.0	1.8			9.0		
90			0.4	1.6	2.6	0.1			4.8		
95			0.1	0.4	0.4				1.0		
100											
105											
110											
115											
120											
124											
SUM	0.2	1.2	6.0	20.3	57.7	10.4	2.0	0.6	98.4		

MINUTES FOR TORQUE VS AIRSPEED BY WEIGHT							SUM ,	BY ALTITUDE	SUM
	LESS	20	30	40	50	63.5	75	80	SUM
LESS	23.6	64.8	240.9	760.4	1586.7	969.3	160.6	81.1	3887.3
40	41.3	84.7	245.9	505.5	481.5	91.9	5.0	3.9	1459.6
60	22.4	43.1	106.2	242.8	295.3	41.4	0.7	0.5	752.4
70	9.2	23.8	57.2	165.6	216.7	25.1	0.7	0.2	498.5
75	6.2	16.6	57.9	178.8	312.7	30.9	0.3	0.1	603.4
80	5.1	14.0	52.0	226.9	425.0	32.7	1.0	0.1	756.8
85	3.7	13.2	48.7	205.6	576.3	38.3	0.6	0.1	886.6
90	2.8	9.0	38.7	192.1	737.3	56.1	0.8		1036.8
95	2.5	6.7	26.7	153.9	845.4	124.4	2.0		1161.5
100	1.5	4.5	17.1	78.8	656.2	176.8	1.5		936.5
105	0.6	4.1	8.6	39.5	386.6	147.4	1.9	0.2	589.0
110	0.6	1.1	4.1	13.1	185.4	63.7	1.9	0.2	270.3
115		0.5	1.7	4.4	74.6	25.3	1.2	0.2	107.9
120		0.1	0.4	1.6	14.8	10.1			27.1
124		0.1	0.3	0.9	5.7	2.8			9.8
SUM	119.4	286.3	906.3	2770.0	6800.3	1836.3	178.3	86.4	12983.5

TABLE VIII. TIME FOR ENGINE TORQUE VERSUS ROTOR RPM BY MISSION SEGMENT, RATE OF CLIMB, AND OUTSIDE AIR TEMPERATURE

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT, BY RATE OF CLIMB -1200, BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460										
475										
480										
485			0.1					0.1		
490			0.1					0.1		
SUM			0.1					0.1		
MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT, BY RATE OF CLIMB -1200, BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460										
475										
480										
485			0.1					0.1		
490			0.1					0.1		
SUM			0.1					0.1		
MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT, BY RATE OF CLIMB -900, BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460										
475			0.0					0.0		
480			0.2	0.4				0.6		
485	0.2	0.1	0.3	0.5				1.1		
490										
SUM	0.2	0.1	0.5	0.9				1.7		
MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT, BY RATE OF CLIMB -900, BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460	0.1							0.1		
475			0.1	0.4	0.2			0.7		
480		0.1	0.1	0.3	0.7	0.1		1.3		
485		0.1	0.1	0.3	0.9			1.3		
490				0.1	0.1			0.1		
SUM	0.1	0.1	0.2	0.7	2.0	0.3		3.5		
MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT, BY RATE OF CLIMB -900, BY OAT										90
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460	0.1	0.3	0.2	0.2	0.2		0.1	0.9		
475	0.1		0.3	0.2	1.5	0.2		2.4		
480		0.1	0.2	0.3	2.7	0.3	0.1	3.7		
485			0.1	0.1	1.8	0.3		2.3		
490			0.1		0.1	0.1		0.3		
SUM	0.2	0.4	0.9	0.6	6.2	0.9	0.1	9.5		

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB -900. BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460	0.2	0.3	0.2	0.2	0.2		0.1	1.0		
475	0.1		0.3	0.3	1.9	0.4		0.1	3.1	
480		0.2	0.3	0.8	3.8	0.4	0.1	0.1	5.6	
485		0.3	0.3	0.7	3.1	0.3			4.7	
490			0.1		0.2	0.1			0.4	
SUM	0.3	0.7	1.2	1.9	9.2	1.2	0.1	0.2	14.8	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB -600. BY OAT										60
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460										
475										
480										
485					0.1			0.1		
490										
SUM					0.1			0.1		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB -600. BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460	0.1			0.1	0.3		0.1	0.6		
475			0.2	0.5	1.1	0.3		2.1		
480		0.1	0.9	0.2	2.1	0.2		3.5		
485		0.1	0.1	0.8	0.8	0.3		2.0		
490			0.2	0.1	0.1			0.4		
SUM	0.1	0.2	1.3	1.8	4.2	0.9	0.1	8.5		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB -600. BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440				0.1				0.1		
460				0.3				0.3		
475		0.1	0.1	1.0				1.1		
480		0.2	1.5	3.2	0.4			5.2		
485	0.1	0.2	1.6	5.4	0.8			8.2		
490		0.1	0.6	2.2	0.7			3.6		
SUM	0.1	0.5	4.1	12.3	1.9			19.0		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB -600. BY OAT										90
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460	0.1		0.2	0.6	0.4	0.4		1.7		
475		0.1	0.6	2.0	5.4	1.6	0.1	0.1	9.8	
480			0.1	2.4	9.7	3.3	0.3	0.1	15.9	
485		0.1		0.9	3.5	1.7	0.1		6.1	
490		0.1		0.1	0.1			0.3		
SUM	0.1	0.2	0.9	5.9	19.1	7.0	0.4	0.1	33.9	

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB -600. BY OAT									
	LESS	20	30	40	50	63.5	75	80	SUM
LESS					0.1				0.1
440					0.3				0.3
460	0.2		0.3	0.8	1.6	0.4	0.1		3.4
475		0.1	1.0	4.0	9.6	2.3	0.1	0.1	17.1
480		0.2	1.1	4.3	17.2	4.3	0.3	0.1	27.5
485		0.1	0.2	2.3	6.6	2.7	0.1		11.8
490		0.1	0.2	0.6	0.3				1.2
SUM	0.2	0.5	2.8	11.9	35.8	9.7	0.6	0.1	61.5

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB -300. BY OAT									
	LESS	20	30	40	50	63.5	75	80	SUM
LESS									
440					0.9	0.3			1.2
460					0.9				0.9
475					0.7				0.9
480	0.1				0.9	0.2			1.1
485									
490									
SUM	0.1				3.4	0.5			4.0

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB -300. BY OAT									
	LESS	20	30	40	50	63.5	75	80	SUM
LESS									
440					0.2	1.0	8.8	1.0	0.1
460					0.5	7.4	14.6	3.0	1.1
475					0.1	2.6	16.0	43.7	3.2
480		0.1			0.7	6.6	17.3	1.0	25.6
485					0.3	1.9	2.8	0.5	5.6
490									
SUM		0.1			4.3	33.0	87.2	8.7	134.5

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB -300. BY OAT									
	LESS	20	30	40	50	63.5	75	80	SUM
LESS									
440					0.1				0.1
460	0.1	0.1	0.3	1.6	9.9	0.5	0.1		12.7
475	0.2	0.5	1.1	15.5	75.5	16.3	1.0	0.1	108.1
480	0.1		1.2	24.1	94.5	19.7	0.8	0.1	140.5
485		0.1	1.1	6.8	43.4	7.1	0.8	0.1	59.4
490			0.3	1.7	7.6	0.8	0.4	0.1	11.0
SUM	0.4	0.7	4.0	49.8	229.1	44.3	3.2	0.3	331.8

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB -300. BY OAT									
	LESS	20	30	40	50	63.5	75	80	SUM
LESS								0.1	0.1
440				0.1	0.1		0.1		0.2
460	0.6	0.6	3.0	6.2	5.9	1.1	0.3	0.2	17.9
475	0.5	0.5	3.6	19.7	55.2	10.3	0.8	0.2	90.9
480	0.6	0.5	2.4	19.4	86.5	23.8	0.7	0.2	133.8
485			1.2	6.3	44.2	11.8	0.2		63.7
490			0.1	0.8	10.8	1.9			13.5
SUM	1.5	1.6	10.4	52.4	209.5	48.9	2.1	0.6	320.1

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB -300. BY OAT										SUM
LESS	20	30	40	50	63.5	75	80			SUM
440				0.1	0.2		0.1			0.1
460	0.7	0.7	3.3	8.8	25.4	2.9	0.6	0.2		42.9
475	0.8	1.0	5.2	42.6	144.2	29.5	2.9	0.3		226.4
480	0.6	0.6	6.3	59.5	225.4	46.7	1.5	0.2		340.8
485		0.1	3.0	19.7	109.9	20.0	1.0	0.1		149.8
490			0.8	4.5	21.2	3.2	0.4	0.1		30.2
SUM	2.1	2.4	18.7	135.2	522.3	102.4	6.5	0.9		790.5

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB 300. BY OAT										60
LESS	20	30	40	50	63.5	75	80			SUM
440										
460				0.2						0.2
475				0.2	0.3					0.5
480					0.4					0.4
485			0.2	0.5						0.8
490										
SUM			0.2	1.0	0.7					1.9

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB 300. BY OAT										70
LESS	20	30	40	50	63.5	75	80			SUM
440										
460			0.2	7.6	1.8	0.1	0.1			4.7
475		0.2	0.1	2.0	8.9	1.3				12.5
480			0.1	3.9	15.5	3.0				22.5
485	0.1	0.1	0.2	1.5	5.6	1.4				9.0
490		0.1	0.1	0.8	2.9	0.6				4.5
SUM	0.1	0.4	0.4	8.6	35.5	8.1	0.1	0.1		53.1

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB 300. BY OAT										80
LESS	20	30	40	50	63.5	75	80			SUM
440				0.7						0.7
460	0.1		0.8	7.6	1.0					9.5
475		0.2	4.2	36.2	8.6	0.7				49.9
480		0.1	9.1	51.1	13.6	1.3	0.1			75.3
485			0.1	1.8	28.6	3.8	0.3	0.2		34.8
490			0.3	5.4	0.2					6.2
SUM	0.2	0.5	16.2	129.7	27.2	2.4	0.3			176.4

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB 300. BY OAT										90
LESS	20	30	40	50	63.5	75	80			SUM
440					0.1					0.1
460	0.2	0.5	1.1	3.1	3.8	1.1		0.1		10.0
475	0.2	0.4	1.8	12.5	34.4	8.2	0.3	0.3		58.0
480	0.1	0.2	1.3	10.5	68.5	18.2	0.6			99.4
485	0.1		0.3	4.7	32.8	9.5	0.3	0.1		47.9
490		0.1		0.2	6.9	1.4				8.7
SUM	0.6	1.2	4.5	31.0	146.6	38.4	1.3	0.5		224.1



TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG, ASCENT, BY RATE OF CLIMB										300,	BY	OAT	SUM
LESS	LESS	20	30	40	50	63.5	75	80	SUM				
440					0.8	0.1			0.1				0.8
460	0.2	0.7	1.1	4.2	14.2	3.8	0.1	0.1	24.4				
475	0.2	0.6	2.1	18.7	79.7	18.3	1.1	0.3	120.9				
480	0.1	0.3	1.3	23.4	135.2	35.2	2.0	0.1	197.6				
485	0.2	0.1	0.6	8.3	67.6	14.7	0.7	0.3	92.4				
490		0.2	0.3	1.3	15.3	2.3			19.4				
SUM	0.7	1.8	5.4	55.8	312.8	74.4	3.8	0.9	455.6				

MINUTES FOR TORQUE VS RPM BY MISSION SEG, ASCENT, BY RATE OF CLIMB										600,	BY	OAT	60
LESS	LESS	20	30	40	50	63.5	75	80	SUM				
440													
460													
475													
480													
485					0.2				0.2				
490													
SUM					0.2				0.2				

MINUTES FOR TORQUE VS RPM BY MISSION SEG, ASCENT, BY RATE OF CLIMB										600,	BY	OAT	70
LESS	LESS	20	30	40	50	63.5	75	80	SUM				
440					0.4	0.3	0.1		0.8				
460					2.4	0.9			3.6				
475				0.2	8.7	1.4			11.4				
480		0.3	0.9	8.7	1.4				11.4				
485	0.1	0.1	0.2	1.3	1.4				3.1				
490				0.3	0.2				0.6				
SUM	0.1	0.4	1.4	13.2	4.3	0.1			19.5				

MINUTES FOR TORQUE VS RPM BY MISSION SEG, ASCENT, BY RATE OF CLIMB										600,	BY	OAT	80
LESS	LESS	20	30	40	50	63.5	75	80	SUM				
440					1.4	0.6			2.0				
460					9.0	3.1	0.1		12.7				
475			0.5	1.7	14.4	2.6	0.1		18.9				
480		0.1	0.6	7.9	1.2	0.2			9.9				
485				1.2	1.2				2.5				
490	0.1								2.5				
SUM	0.1	0.1	2.8	33.8	8.6	0.4			45.9				

MINUTES FOR TORQUE VS RPM BY MISSION SEG, ASCENT, BY RATE OF CLIMB										600,	BY	OAT	90
LESS	LESS	20	30	40	50	63.5	75	80	SUM				
440								0.1	0.1				
460			0.3	0.6	1.0	0.2	0.3	0.1	2.4				
475		0.1	0.3	5.3	13.1	4.2	0.3		23.2				
480		0.2	0.3	3.2	21.4	6.0	0.1		31.2				
485	0.1		0.2	2.1	10.1	2.7			15.2				
490	0.1		0.1	0.2	1.4	1.3			3.0				
SUM	0.2	0.3	1.2	11.4	47.0	14.4	0.6	0.2	75.2				

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB										600.	BY	OAT	SUM
LESS	20	30	40	50	63.5	75	80	SUM					
440							0.1	0.1					
460			0.3	0.6	2.8	1.1	0.4	0.1				5.2	
475	0.1	0.3	6.0	24.5	8.2	0.4						39.5	
480	0.2	0.7	5.9	44.6	10.0	0.2						61.5	
485	0.1	0.1	0.3	3.0	19.5	5.3	0.2					28.4	
490	0.1	0.1	0.1	0.2	2.9	2.7						6.0	
SUM	0.2	0.5	1.7	15.6	94.3	27.2	1.1	0.2				140.8	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB										900.	BY	OAT	SUM
LESS	20	30	40	50	63.5	75	80	SUM					
440													
460						0.1						0.1	
475					0.1							0.1	
480													
485					0.1							0.1	
490													
SUM					0.1	0.1						0.2	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB										900.	BY	OAT	SUM
LESS	20	30	40	50	63.5	75	80	SUM					
440													
460				0.1								0.1	
475				0.1	1.1	0.1						1.3	
480					1.9	0.6						2.5	
485				0.2	0.7							0.9	
490		0.1	0.2	0.2	0.1							0.6	
SUM		0.1	0.6	4.0	0.9							5.5	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB										900.	BY	OAT	SUM
LESS	20	30	40	50	63.5	75	80	SUM					
440				0.1	0.1							0.2	
460				0.8	0.2							1.1	
475			0.5	2.4	0.9	0.2						4.0	
480			1.3	5.4	1.3	0.1						8.1	
485			0.3	3.2	0.5							4.1	
490	0.1		0.1	0.3	0.1							0.5	
SUM	0.1		2.2	12.2	3.1	0.3						17.9	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB										900.	BY	OAT	SUM
LESS	20	30	40	50	63.5	75	80	SUM					
440													
460			0.2	0.3	1.4		0.1					2.0	
475	0.1	0.1	0.2	1.0	5.7	2.2						9.1	
480				2.4	9.8	2.3	0.1	0.1				14.7	
485		0.1	0.1	0.3	4.1	1.4						6.0	
490		0.1	0.1	0.2	0.8	0.1						1.2	
SUM	0.1	0.3	0.6	4.1	21.7	6.0	0.2	0.1				33.1	

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT, BY RATE OF CLIMB 900. BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440				0.1	0.1			0.2		
460		0.2	0.3	2.3	0.2	0.1		3.2		
475	0.1	0.1	1.6	9.2	3.1	0.2		14.4		
480			3.7	17.0	4.3	0.2	0.1	25.5		
485		0.1	0.8	8.0	2.0			11.1		
490		0.2	0.1	0.4	1.3	0.3		2.4		
SUM	0.1	0.4	6.8	38.0	10.1	0.6	0.1	56.7		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT, BY RATE OF CLIMB 1200. BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440				0.1				0.1		
460				0.5	0.1			0.8		
475				0.4				0.4		
480			0.1	0.5	0.1			0.8		
485				0.4				0.4		
490										
SUM			0.1	1.1	0.1			1.3		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT, BY RATE OF CLIMB 1200. BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440				0.1				0.1		
460				0.9				1.0		
475			0.1	0.9				1.0		
480			0.2	2.6	1.4			4.3		
485				1.0	0.3			1.3		
490				0.1	0.1			0.2		
SUM			0.3	4.7	1.8			6.9		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT, BY RATE OF CLIMB 1200. BY OAT										90
LESS	20	30	40	50	63.5	75	80	SUM		
440					0.1			0.1		
460					0.3			0.1		
475			0.6	2.2	0.3			3.1		
480			0.3	4.2	1.1			5.5		
485				2.1	0.8			2.9		
490				0.2	0.1			0.2		
SUM			0.9	8.6	2.3			11.8		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT, BY RATE OF CLIMB 1200. BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440				0.1	0.1			0.2		
460				3.2	0.3			4.2		
475			0.7	3.2	0.3			4.2		
480			0.6	7.4	2.6			10.5		
485				3.5	1.1			4.7		
490				0.2	0.2			0.4		
SUM			1.3	14.5	4.3			20.0		

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT, BY RATE OF CLIMB 1500, BY OAT										60
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460										
475										
480										
485				0.1				0.1		
490										
SUM				0.1				0.1		
MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT, BY RATE OF CLIMB 1500, BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460			0.0	0.2				0.2		
475										
480				0.3				0.3		
485				0.1				0.1		
490										
SUM			0.0	0.6				0.6		
MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT, BY RATE OF CLIMB 1500, BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460				0.2	0.1			0.3		
475			0.3	0.2	0.3			0.8		
480				1.3	0.4			1.7		
485				0.1				0.1		
490										
SUM			0.3	1.8	0.8			2.9		
MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT, BY RATE OF CLIMB 1500, BY OAT										90
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460										
475				0.8	0.2			1.2		
480		0.1		1.7				1.7		
485				0.2	0.1			0.3		
490				0.2				0.2		
SUM		0.1	0.2	2.9	0.3			3.5		
MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT, BY RATE OF CLIMB 1500, BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460			0.0	0.4	0.1			0.5		
475			0.5	1.0	0.5			2.0		
480		0.1		3.3	0.4			3.7		
485				0.5	0.1			0.6		
490				0.2				0.2		
SUM		0.1	0.6	5.4	1.1			7.1		

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB 1800. BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460						0.1		0.1		
475					0.1			0.1		
480				0.1				0.1		
485					0.2			0.2		
490				0.3	0.1	0.1		0.4		
SUM										
MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB 1800. BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460				0.2				0.2		
475				0.1				0.1		
480			0.1					0.1		
485				0.1				0.1		
490										
SUM			0.1	0.4				0.5		
MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB 1800. BY OAT										90
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460				0.1				0.1		
475			0.1	0.2	0.1			0.5		
480		0.1	0.2	0.2	0.2			0.7		
485				0.3				0.3		
490										
SUM		0.1	0.3	0.8	0.3			1.5		
MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB 1800. BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460				0.3		0.1		0.4		
475			0.1	0.3	0.2			0.6		
480		0.1	0.3	0.3	0.2			0.9		
485				0.4				0.4		
490				0.2				0.2		
SUM		0.1	0.4	1.5	0.4	0.1		2.5		
MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT. BY RATE OF CLIMB 2100. BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460										
475										
480				0.1				0.1		
485										
490										
SUM				0.1				0.1		

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT, BY RATE OF CLIMB 2100. BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460				0.1	0.1			0.2		
475										
480				0.2	0.1			0.3		
485		0.1		0.2				0.2		
490										
SUM		0.1		0.5	0.2			0.8		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. ASCENT, BY RATE OF CLIMB 2100. BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460				0.1	0.1			0.2		
475										
480				0.3	0.1			0.4		
485		0.1		0.2				0.2		
490										
SUM		0.1		0.6	0.2			0.9		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB LESS. BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440	0.1							0.1		
460	0.1							0.1		
475	0.1							0.1		
480	0.2	0.2	0.1					0.5		
485	0.2		0.3					0.4		
490	0.2	0.1						0.2		
SUM	0.8	0.3	0.3					1.4		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB LESS. BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460				0.1	0.1	0.1		0.2		
475	0.2	0.1	0.2	0.1	0.1			0.6		
480	0.2	0.3	0.4	0.2				1.0		
485	0.2		0.2	0.4	0.2			1.0		
490	0.1	0.1	0.1	0.1				0.2		
SUM	0.6	0.4	0.8	0.8	0.4	0.1		3.1		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB LESS. BY OAT										90
LESS	20	30	40	50	63.5	75	80	SUM		
440	0.0							0.0		
460	0.2	0.0	0.2	0.1	0.1			0.6		
475	0.1							0.1		
480		0.1	0.1	0.1				0.2		
485		0.1						0.1		
490	0.1							0.1		
SUM	0.4	0.3	0.3	0.1	0.1			1.1		

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB LESS. BY OAT										SUM
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440	0.1								0.1	
460	0.3	0.0	0.2	0.1	0.2	0.1			0.9	
475	0.3	0.1	0.2	0.1	0.1				0.7	
480	0.4	0.6	0.5	0.3					1.7	
485	0.4	0.1	0.4	0.4	0.2				1.6	
490	0.3	0.1	0.1	0.1					0.5	
SUM	1.8	0.9	1.4	0.9	0.5	0.1			5.6	
MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB -2100. BY OAT										70
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440									0.1	
460	0.1								0.5	
475	0.1		0.3	0.1					0.1	
480			0.1						0.4	
485	0.1	0.1	0.3						0.1	
490		0.1	0.1						0.1	
SUM	0.2	0.1	0.8	0.1					1.2	
MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB -2100. BY OAT										80
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440									0.2	
460	0.2								0.7	
475	0.2	0.4			0.1				1.2	
480	0.2	0.2	0.1	0.1	0.6				0.7	
485	0.1	0.0		0.2	0.3	0.1			0.1	
490	0.1								0.1	
SUM	0.8	0.7	0.1	0.3	1.0	0.1			2.9	
MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB -2100. BY OAT										90
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440	0.1								0.1	
460									0.1	
475	0.1								0.4	
480			0.1	0.2	0.2				0.5	
485	0.1		0.3		0.1				0.1	
490									0.1	
SUM	0.2		0.4	0.2	0.3				1.1	
MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB -2100. BY OAT										SUM
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440	0.1								0.1	
460	0.3								0.3	
475	0.3	0.4	0.3	0.1	0.1				1.2	
480	0.2	0.2	0.3	0.3	0.8				1.7	
485	0.2	0.1	0.7	0.2	0.4	0.1			1.7	
490	0.1	0.1	0.1						0.2	
SUM	1.2	0.8	1.3	0.6	1.3	0.1			5.2	

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB -1800. BY OAT										70
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440										
460										
475	0.4	0.2	0.3	0.1	0.2				1.2	
480	0.3	0.6	0.4	0.1	0.1				1.4	
485	0.2	0.2		0.1	0.1				0.6	
490	0.3	0.2	0.1						0.5	
SUM	1.2	1.2	0.8	0.3	0.3				3.7	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB -1800. BY OAT										80
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440	0.3								0.3	
460	0.8	0.2	0.1		0.2	0.1			1.3	
475	0.4	0.2		0.4	0.2				1.2	
480	0.4	0.2	0.3	0.4	0.6				1.8	
485	0.1	0.3	0.2	0.4	0.3				1.2	
490	0.2			0.1					0.3	
SUM	2.2	0.9	0.5	1.3	1.2	0.1			6.2	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB -1800. BY OAT										90
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440	0.1								0.1	
460	0.1	0.1							0.2	
475	0.1			0.1	0.2				0.4	
480	0.1	0.1		0.1	0.2	0.1		0.1	0.6	
485		0.1	0.2	0.1	0.2				0.5	
490	0.2	0.1		0.1					0.3	
SUM	0.5	0.3	0.2	0.4	0.6	0.1		0.1	2.1	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB -1800. BY OAT										SUM
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440	0.4								0.4	
460	0.9	0.3	0.1		0.2	0.1			1.5	
475	0.9	0.4	0.3	0.6	0.6				2.8	
480	0.7	0.9	0.7	0.6	0.9	0.1		0.1	3.8	
485	0.3	0.4	0.3	0.6	0.5				2.3	
490	0.7	0.3	0.1	0.2					1.2	
SUM	3.8	2.4	1.4	2.0	2.2	0.1		0.1	12.0	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB -1500. BY OAT										70
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440										
460			0.1						0.1	
475	0.1	0.3	0.2	0.1					0.6	
480	0.3	0.3	0.4		0.3				1.2	
485	0.1	0.3	1.3	0.3	0.2				2.2	
490	0.1	0.2	0.1						0.4	
SUM	0.5	1.1	2.1	0.4	0.5				4.5	



TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SFG, MANUVR, BY RATE OF CLIMB -1500, BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440	0.1							0.1		
460		0.1	0.5	0.1	0.1			0.8		
475	0.2	0.8	0.6	1.1	0.7	0.2		3.9		
480	0.4	0.9	1.1	1.7	1.2	0.2		5.4		
485	0.6	0.5	0.7	0.9	1.1	0.1		3.8		
490	0.2	0.2	0.1					0.4		
SUM	1.4	2.5	2.9	4.1	3.2	0.4		14.5		

MINUTES FOR TORQUE VS RPM BY MISSION SEG, MANUVR, BY RATE OF CLIMB -1500, BY OAT										90
LESS	20	30	40	50	63.5	75	80	SUM		
440	0.5							0.5		
460	0.3	0.2	0.3	0.3	0.4			1.4		
475	0.2	0.1	0.3	1.4	1.2	0.1	0.1	3.4		
480	0.4	0.3	0.7	2.4	1.4	0.1		5.2		
485	0.1	0.4	0.5	0.4	0.1	0.1		1.6		
490				0.2	0.1			0.3		
SUM	1.5	1.1	1.7	4.7	3.2	0.3	0.1	12.5		

MINUTES FOR TORQUE VS RPM BY MISSION SEG, MANUVR, BY RATE OF CLIMB -1500, BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440	0.7							0.7		
460	0.3	0.3	0.9	0.4	0.5			2.4		
475	0.4	1.7	1.1	2.8	1.9	0.3	0.1	7.9		
480	1.1	1.5	2.1	4.1	2.8	0.3		11.9		
485	0.8	1.3	2.4	1.6	1.4	0.2		7.6		
490	0.3	0.4	0.2	0.2	0.1			1.1		
SUM	3.5	4.6	6.7	9.1	6.8	0.7	0.1	31.5		

MINUTES FOR TORQUE VS RPM BY MISSION SEG, MANUVR, BY RATE OF CLIMB -1200, BY OAT										60
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460										
475					0.1			0.1		
480										
485										
490										
SUM					0.1			0.1		

MINUTES FOR TORQUE VS RPM BY MISSION SEG, MANUVR, BY RATE OF CLIMB -1200, BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460	0.1		0.1					0.2		
475		0.4	0.7	0.3	0.9	0.2		2.6		
480		1.1	1.0	0.9	1.2			4.1		
485	0.3	0.2	0.6	0.7	0.4			2.1		
490	0.2	0.4	0.1					0.7		
SUM	0.4	2.0	2.3	2.0	2.6	0.2		9.7		

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG, MANUVR, BY RATE OF CLIMB -1200, BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440		0.1						0.1		
460	0.2	0.2	0.2	0.6	0.5	0.0		1.7		
475	0.6	0.7	0.5	1.6	2.5	0.4	0.1	6.5		
480	0.6	1.7	4.0	5.0	6.7	1.1	0.1	19.3		
485	0.4	1.6	1.7	2.4	2.7	0.2		9.0		
490	0.4	0.3	0.7	0.0	0.1			1.6		
SUM	2.3	4.5	7.2	9.6	12.5	1.7	0.2	38.1		

MINUTES FOR TORQUE VS RPM BY MISSION SEG, MANUVR, BY RATE OF CLIMB -1200, BY OAT										90
LESS	20	30	40	50	63.5	75	80	SUM		
440		0.4						0.4		
460	0.4	0.1	0.4	0.6	1.7	0.9	0.1	4.2		
475	0.1	1.2	1.7	5.0	6.4	3.6	0.5	18.6		
480	0.4	1.1	5.3	9.6	12.2	2.6	0.2	31.3		
485		0.5	2.9	3.6	3.7	0.7		11.5		
490	0.1	0.1	0.2	0.2				0.6		
SUM	0.9	3.1	10.4	19.0	24.0	7.8	0.8	66.1		

MINUTES FOR TORQUE VS RPM BY MISSION SEG, MANUVR, BY RATE OF CLIMB -1200, BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440		0.1						0.1		
460	0.7	0.3	0.6	1.3	2.1	1.0	0.1	6.1		
475	0.7	2.3	3.0	7.0	10.0	4.2	0.6	27.7		
480	1.0	3.9	10.3	15.5	20.1	3.7	0.3	54.7		
485	0.7	2.3	5.2	6.6	6.8	0.9		22.5		
490	0.8	0.8	0.9	0.3	0.1			2.9		
SUM	3.8	9.6	20.0	30.6	39.1	9.8	1.0	114.0		

MINUTES FOR TORQUE VS RPM BY MISSION SEG, MANUVR, BY RATE OF CLIMB -900, BY OAT										60
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460										
475				0.3				0.3		
480										
485				0.1				0.1		
490										
SUM				0.4				0.4		

MINUTES FOR TORQUE VS RPM BY MISSION SEG, MANUVR, BY RATE OF CLIMB -900, BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440		0.1	0.4	0.5	0.3	0.1		0.1	1.5	
460		0.2	1.1	1.5	1.8	0.5		0.1	5.4	
475	0.1	1.4	2.7	4.8	4.0	0.7	0.1		13.7	
480										
485	0.4	0.8	1.5	1.8	1.0	0.1			5.5	
490	0.1			0.1	0.1				0.3	
SUM	0.6	2.5	5.7	8.6	7.1	1.4	0.2	0.2	26.3	

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB -900. BY OAT										80
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440										
460	0.2	0.1	0.5	0.6	1.3	0.4	0.2	0.1	3.4	
475	0.4	0.6	2.4	5.0	5.8	3.3	0.6	0.2	18.3	
480	0.3	1.5	5.4	12.2	17.9	5.3	0.3	0.1	43.1	
485	0.4	2.1	4.3	9.5	8.6	1.9	0.1		26.9	
490	0.8	0.8	0.9	0.8	0.2	0.2			3.7	
SUM	2.1	5.1	13.5	28.1	33.9	11.1	1.2	0.4	95.4	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB -900. BY OAT										90
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440									0.1	0.1
460	0.1	0.0	0.3	2.2	3.6	2.7	0.5	0.8	0.3	0.3
475	0.2	0.7	3.1	8.7	12.3	6.5	1.3	0.4	0.8	10.4
480	0.3	1.3	6.9	17.4	22.8	10.8	2.0	0.2	0.4	33.2
485	0.4	2.0	4.8	10.0	14.1	3.9	0.4		0.2	61.7
490	0.4	0.9	0.9	2.9	2.8	0.5				35.6
SUM	1.4	4.8	16.1	41.3	55.7	24.4	4.2	1.8		8.4

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB -900. BY OAT										SUM
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440									0.1	0.1
460	0.4	0.2	1.2	3.3	5.3	3.2	0.7	1.0	0.3	0.3
475	0.6	1.5	6.6	15.2	20.2	10.4	2.0	0.7	1.0	15.2
480	0.6	4.2	15.0	34.4	44.7	16.8	2.4	0.3	0.7	57.2
485	1.2	4.8	10.6	21.3	23.8	5.9	0.5		0.3	118.5
490	1.3	1.7	1.8	3.8	3.1	0.7				68.2
SUM	4.1	12.4	35.2	78.0	97.2	36.9	5.6	2.4		12.3

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB -600. BY OAT										60
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440										
460										
475					0.2					0.2
480										
485					0.1					0.1
490										
SUM					0.3					0.3

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB -600. BY OAT										70
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440									0.1	0.1
460		0.6	0.6	1.4	1.1	0.1	0.1	0.2	0.2	4.3
475		0.4	1.9	6.2	10.4	1.8	0.2	0.2	0.2	21.1
480	0.2	1.6	4.5	11.1	15.2	2.3	0.1	0.1	0.1	35.2
485	0.4	1.1	1.9	2.9	3.5	0.9	0.1			10.8
490	0.1	0.5	0.5	1.0	0.1					2.1
SUM	0.8	4.4	9.5	22.5	30.3	5.1	0.5	0.5		73.6

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB -600. BY OAT										80
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440								0.1	0.1	
460	0.2	0.6	1.1	4.5	3.4	1.6	0.8	1.0	13.2	
475	0.0	1.7	9.7	16.7	29.0	12.8	2.4	1.5	73.8	
480	1.0	4.0	13.2	40.2	57.4	21.6	1.7	0.4	139.5	
485	1.2	3.5	10.0	21.3	24.8	6.4			67.1	
490	0.4	1.0	2.4	3.4	1.9	0.2			9.3	
SUM	2.8	10.9	36.4	86.1	116.4	42.6	4.9	3.1	303.1	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB -600. BY OAT										90
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440					0.1	0.1		0.1	0.1	
460	0.3	0.4	2.6	5.7	11.3	9.2	2.7	1.9	34.1	
475	0.4	3.1	12.4	40.6	64.6	26.8	4.2	1.2	153.4	
480	0.7	4.9	25.3	70.9	114.2	33.9	3.5	0.9	254.3	
485	0.6	3.6	12.6	29.8	50.5	15.1	1.0	0.5	113.6	
490	0.2	1.6	3.6	9.3	10.8	1.0			26.5	
SUM	2.2	13.7	56.5	156.2	231.5	86.1	11.3	5.4	582.8	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB -600. BY OAT										SUM
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440					0.1	0.1		0.1	0.1	
460	0.5	1.7	4.5	11.6	15.8	10.8	3.5	3.1	51.5	
475	0.5	5.3	24.1	63.4	104.2	41.3	6.8	2.9	248.5	
480	1.9	10.6	43.0	122.2	186.8	57.9	5.3	1.4	429.0	
485	2.2	8.2	24.5	53.9	78.8	22.5	1.1	0.5	191.7	
490	0.7	3.2	6.5	13.7	12.7	1.1			38.0	
SUM	5.8	28.9	102.5	264.8	398.5	133.8	16.6	9.0	959.9	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB -300. BY OAT										60
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440										
460										
475				0.1	0.1				0.2	
480				0.2	1.0				1.2	
485					0.3	0.1			0.4	
490										
SUM				0.3	1.4	0.1			1.8	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB -300. BY OAT										70
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440								0.1	0.1	
460	0.1	0.4	5.6	6.8	5.4	2.5	0.6	1.1	22.6	
475	0.2	2.1	13.9	35.3	70.6	21.5	2.9	1.6	148.1	
480	0.7	4.4	24.5	56.6	104.0	31.6	4.0	2.5	228.3	
485	0.3	0.9	6.7	17.4	33.8	6.7	1.6	0.5	67.9	
490	0.1	0.3	0.1	0.9	1.9	0.1			3.3	
SUM	1.3	8.2	50.7	117.0	215.7	62.4	9.1	5.9	470.3	

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB -300. BY OAT 80									
	LESS	20	30	40	50	63.5	75	80	SUM
LESS									
440					0.1			0.2	0.3
460	0.1	0.7	6.9	15.6	16.3	7.5	3.9	7.0	57.9
475	1.1	3.9	21.9	81.4	174.9	91.9	20.7	14.7	410.5
480	0.3	6.9	51.1	170.1	351.6	117.3	14.8	6.5	718.6
485	0.5	4.5	31.4	91.4	143.0	36.6	1.4	0.4	309.1
490	0.4	1.9	7.0	11.9	10.9	0.7			32.8
SUM	2.3	17.8	118.2	370.5	696.7	254.0	40.7	28.8	1529.1

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB -300. BY OAT 90									
	LESS	20	30	40	50	63.5	75	80	SUM
LESS					0.2			0.5	0.7
440		0.1		0.1	0.2	0.3	0.2	0.9	1.7
460	0.4	1.3	6.5	21.3	35.4	27.3	10.2	5.3	107.6
475	0.9	3.9	29.0	124.0	204.3	91.9	10.7	9.1	473.7
480	1.3	13.3	77.5	222.1	357.7	133.6	16.5	4.8	824.7
485	0.6	6.2	34.2	95.1	157.2	46.0	2.1	0.2	341.6
490	0.4	1.4	8.2	25.5	30.6	5.1	0.1		71.3
SUM	3.5	26.1	155.3	488.1	783.6	304.1	39.7	20.8	1821.3

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB -300. BY OAT SUM									
	LESS	20	30	40	50	63.5	75	80	SUM
LESS					0.2			0.5	0.7
440		0.1		0.1	0.3	0.3	0.2	1.3	2.1
460	0.6	2.4	19.0	43.7	57.1	37.3	14.6	13.4	188.1
475	2.2	10.0	64.7	240.7	450.0	205.3	34.2	25.4	1032.5
480	2.2	24.8	153.0	449.0	812.3	282.6	35.4	13.8	1772.8
485	1.4	11.5	72.2	204.0	334.4	89.4	5.0	1.1	719.0
490	0.9	3.6	15.3	38.4	43.3	5.8	0.1		107.4
SUM	7.2	52.2	324.2	975.8	1697.5	620.6	89.5	55.5	3822.5

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB 300. BY OAT 60									
	LESS	20	30	40	50	63.5	75	80	SUM
LESS									
440									
460									
475					0.6				0.6
480					0.1				0.1
485					0.1				0.1
490									
SUM					0.9				0.9

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB 300. BY OAT 70									
	LESS	20	30	40	50	63.5	75	80	SUM
LESS									
440									
460			0.6	1.2	1.0	0.1	0.1		2.9
475	0.1	0.1	1.7	3.0	9.8	1.7	0.4	0.2	17.0
480	0.1	0.7	2.1	7.3	23.8	6.6	0.4	0.3	41.2
485	0.1	0.2	0.6	2.7	5.7	0.4	0.1		9.8
490	0.1	0.1		0.8	0.8				1.6
SUM	0.3	1.0	4.9	15.0	41.1	8.8	1.0	0.5	72.6

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB 300. BY OAT 80									
LESS	LESS	20	30	40	50	63.5	75	80	SUM
440					0.1			0.1	0.2
460	0.1	0.1	0.7	4.6	4.8	1.4	0.7	1.3	13.5
475	0.4	0.6	2.8	11.0	33.6	15.0	3.6	1.5	68.6
480	0.2	1.4	10.2	32.8	83.9	28.0	3.3	0.8	160.8
485	0.4	1.9	7.8	22.5	37.9	9.8	0.3		80.6
490	0.2	0.7	2.0	3.9	4.1	0.5			11.5
SUM	1.3	4.7	23.5	74.7	164.4	54.8	8.2	3.6	335.2

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB 300. BY OAT 90									
LESS	LESS	20	30	40	50	63.5	75	80	SUM
440						0.1		0.1	0.1
460	0.2	0.3	1.6	3.2	10.6	7.6	2.7	2.8	29.0
475		1.7	8.9	31.3	47.5	29.2	4.7	1.8	140.0
480	0.1	3.7	21.1	71.4	121.8	43.0	4.9	1.1	267.0
485	0.1	2.2	10.5	31.4	67.9	19.8	1.1		133.0
490	0.1	0.7	2.3	7.7	13.1	2.4			26.2
SUM	0.4	8.5	44.3	144.9	275.8	102.1	13.5	6.8	596.3

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB 300. BY OAT SUM									
LESS	LESS	20	30	40	50	63.5	75	80	SUM
440					0.1	0.1		0.1	0.1
460	0.3	0.3	2.8	8.9	14.4	9.1	3.6	4.0	45.4
475	0.5	2.4	13.4	45.3	104.5	45.9	8.7	3.5	226.2
480	0.4	5.7	33.3	111.4	229.6	77.6	8.9	2.2	469.2
485	0.6	4.2	18.9	56.6	111.6	30.1	1.6		223.5
490	0.3	1.5	4.3	12.4	17.9	3.0			39.3
SUM	2.0	14.2	72.7	234.6	482.2	165.7	22.7	10.9	1005.0

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB 600. BY OAT 60									
LESS	LESS	20	30	40	50	63.5	75	80	SUM
440									
460									
475									
480					0.1	0.1			0.2
485									
490									
SUM					0.1	0.1			0.2

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB 600. BY OAT 70									
LESS	LESS	20	30	40	50	63.5	75	80	SUM
440									
460				0.2	0.1	0.2			0.5
475		0.2	0.1	1.2	3.9	1.4	0.1		7.0
480		0.1	0.6	1.9	5.0	1.0	0.2	0.2	9.0
485			0.6	1.2	2.3	0.3	0.1		4.6
490					0.3				0.3
SUM		0.3	1.3	4.6	11.7	2.9	0.3	0.2	21.4

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB										600.	BY OAT	80
LESS	LESS	20	30	40	50	63.5	75	80	SUM			
440								0.2	0.2			
460	0.1		0.3	0.4	0.7	0.9	0.3	0.2	2.9			
475			0.6	2.9	8.2	5.9	1.2	0.6	19.3			
480		0.2	1.6	8.6	19.5	10.3	0.6	0.4	41.2			
485			0.6	2.2	7.0	15.2	3.9		28.9			
490	0.2	0.2	0.5	1.1	1.5	0.0			3.6			
SUM	0.3	1.0	5.2	20.0	45.2	21.0	2.1	1.4	96.2			

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB										600.	BY OAT	90
LESS	LESS	20	30	40	50	63.5	75	80	SUM			
440						0.1		0.1	0.1			
460		0.1	0.1	1.0	3.2	3.2	1.2	0.6	9.4			
475			2.0	7.1	14.2	8.2	1.3	1.0	33.8			
480	0.2	0.3	5.1	14.4	27.6	13.2	2.0	0.3	63.2			
485	0.1	0.4	3.9	8.7	21.2	8.1	0.3	0.1	42.8			
490	0.1	0.3	1.0	3.1	4.6	1.1			10.2			
SUM	0.4	1.0	12.2	34.2	70.8	34.0	4.8	2.1	159.5			

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB										600.	BY OAT	SUM
LESS	LESS	20	30	40	50	63.5	75	80	SUM			
440						0.1		0.3	0.3			
460	0.1	0.1	0.4	1.6	4.0	4.3	1.5	0.8	12.8			
475		0.2	2.7	11.2	26.2	15.5	2.6	1.5	60.1			
480	0.2	0.6	7.3	24.9	52.2	24.6	2.9	0.9	113.6			
485	0.1	1.0	6.7	16.9	38.7	12.4	0.3	0.1	76.3			
490	0.3	0.5	1.5	4.2	6.5	1.2			14.1			
SUM	0.7	2.3	18.7	58.9	127.8	58.0	7.3	3.7	277.3			

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB										900.	BY OAT	70
LESS	LESS	20	30	40	50	63.5	75	80	SUM			
440					0.1				0.1			
475				0.1	0.6	0.1			0.8			
480		0.2		0.5	0.7	1.3			2.6			
485			0.1	0.2	0.3	0.2	0.1		0.9			
490			0.1	0.2	0.1				0.3			
SUM		0.2	0.2	1.0	1.8	1.5	0.1		4.7			

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB										900.	BY OAT	80
LESS	LESS	20	30	40	50	63.5	75	80	SUM			
440								0.1	0.1			
460			0.2	0.1	0.8	0.1	0.2	0.1	1.4			
475			0.2	0.9	3.3	1.3	1.1	0.1	6.9			
480		0.3	0.6	2.2	7.4	1.4			11.9			
485		0.3	0.6	1.8	3.9	1.7	0.1		8.4			
490		0.1	0.3	0.5	0.7				1.5			
SUM		0.6	1.8	5.5	16.2	4.5	1.3	0.2	30.1			

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB 900. BY OAT 90									
LESS	20	30	40	50	63.5	75	80	SUM	
440				0.1			0.0	0.2	
460			0.1	0.7	0.9	0.1	0.2	2.0	
475	0.1	1.0	3.2	7.3	1.6	0.2	0.2	13.7	
480	0.9	2.8	7.3	14.4	4.3	0.3	0.2	30.1	
485	0.4	0.9	3.9	7.3	2.6	0.1		15.2	
490	0.2	0.2	0.8	1.9	0.1			3.1	
SUM	1.6	4.9	15.3	31.7	9.5	0.7	0.6	64.3	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB 900. BY OAT SUM									
LESS	20	30	40	50	63.5	75	80	SUM	
440				0.1			0.1	0.2	
460		0.2	0.2	1.6	1.0	0.3	0.3	3.5	
475	0.1	1.2	4.3	11.2	3.0	1.3	0.3	21.4	
480	1.3	3.4	10.0	22.9	6.9	0.3	0.2	44.6	
485	0.7	1.6	5.9	11.5	4.5	0.2		24.4	
490	0.3	0.5	1.5	2.6	0.1			4.9	
SUM	2.4	6.8	21.8	49.6	15.5	2.1	0.8	99.0	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB 1200. BY OAT 70									
LESS	20	30	40	50	63.5	75	80	SUM	
440								0.2	
460				0.2	0.1	0.1		0.6	
475				0.3	0.1	0.1		0.1	
480		0.0		0.1				0.3	
485				0.1				0.1	
490	0.1	0.1		0.1				0.3	
SUM	0.1	0.1	0.0	0.1	0.6	0.1	0.1	1.2	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB 1200. BY OAT 80									
LESS	20	30	40	50	63.5	75	80	SUM	
440					0.1			0.2	
460			0.1		0.1	0.3		1.4	
475			0.1	1.0	0.5	0.2		2.9	
480		0.1	0.7	1.4	0.9	0.3		2.3	
485	0.1	0.1	1.0	0.9	0.3			0.2	
490	0.1			0.1				0.2	
SUM	0.2	0.2	1.9	3.4	1.2	0.2		7.0	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB 1200. BY OAT 90									
LESS	20	30	40	50	63.5	75	80	SUM	
440			0.1	0.3	0.2	0.0		0.5	
460			0.4	1.7	0.2			2.4	
475		0.1	0.9	2.6	0.1	0.1		4.7	
480	0.1	0.2	0.5	1.5	0.9	0.1		3.2	
485	0.1	0.1	0.5	1.5	0.9	0.1		0.4	
490		0.1	0.1	0.1	0.2	0.1		0.4	
SUM	0.2	0.5	2.0	6.1	2.3	0.3		11.3	



TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB 1200. BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460				0.2	0.3	0.3	0.0			0.8
475			0.1	0.5	2.9	0.5				4.0
480		0.1	0.4	1.6	4.3	1.3	0.4			8.2
485	0.1	0.1	0.2	1.5	2.5	1.2	0.1			5.6
490	0.1	0.1	0.1	0.1	0.2	0.2	0.1			0.8
SUM	0.2	0.3	0.7	3.9	10.1	3.6	0.6			19.4

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB 1500. BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460										
475						0.2				0.2
480						0.1				0.1
485				0.1						0.1
490			0.1							0.1
SUM			0.1	0.1	0.3					0.5

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB 1500. BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460						0.1				0.1
475						0.2				0.2
480				0.7	0.3					0.9
485				0.1						0.1
490										
SUM				0.8	0.6					1.3

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB 1500. BY OAT										90
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460				0.1	0.2					0.3
475				0.0						0.0
480				0.5	0.1	0.1				0.8
485			0.2	0.4						0.5
490			0.1							0.1
SUM			0.2	1.1	0.3	0.1				1.7

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB 1500. BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460				0.1	0.3					0.4
475				0.0	0.4					0.5
480				1.2	0.5	0.1				1.8
485			0.2	0.6						0.7
490			0.2							0.2
SUM			0.3	1.9	1.2	0.1				3.6

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB 1800. BY OAT 80									
LESS	20	30	40	50	63.5	75	80	SUM	
440									
460					0.1			0.1	
475			0.1	0.2	0.2			0.4	
480				0.1	0.1			0.2	
485			0.1					0.1	
490									
SUM			0.1	0.3	0.3			0.6	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB 1800. BY OAT 90									
LESS	20	30	40	50	63.5	75	80	SUM	
440									
460					0.1			0.1	
475			0.1	0.1	0.1			0.3	
480			0.1	0.3				0.4	
485				0.1				0.1	
490									
SUM			0.2	0.4	0.2			0.9	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB 1800. BY OAT SUM									
LESS	20	30	40	50	63.5	75	80	SUM	
440									
460					0.2			0.2	
475			0.2	0.2	0.3			0.7	
480			0.1	0.4	0.1			0.6	
485			0.1	0.1				0.1	
490									
SUM			0.3	0.7	0.5			1.5	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB 2100. BY OAT 80									
LESS	20	30	40	50	63.5	75	80	SUM	
440									
460				0.1	0.1			0.2	
475									
480				0.1	0.1			0.1	
485				0.3				0.3	
490				0.1				0.1	
SUM				0.5	0.2			0.6	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR. BY RATE OF CLIMB 2100. BY OAT 90									
LESS	20	30	40	50	63.5	75	80	SUM	
440									
460				0.1				0.1	
475					0.2			0.2	
480				0.1		0.1		0.2	
485				0.2				0.2	
490				0.1				0.1	
SUM				0.4	0.2	0.1		0.7	

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. MANUVR, BY RATE OF CLIMB 2100. BY OAT										SUM
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440										
460					0.2	0.1			0.3	
475						0.2			0.2	
480					0.1	0.1	0.1		0.3	
485						0.4			0.4	
490					0.1				0.1	
SUM					0.9	0.3	0.1		1.3	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT, BY RATE OF CLIMB										LESS. BY OAT	70
LESS	LESS	20	30	40	50	63.5	75	80	SUM		
440											
460											
475		0.1	0.1						0.2		
480	0.1	0.3	0.1						0.6		
485			0.2						0.2		
490											
SUM	0.1	0.7	0.2						1.0		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT, BY RATE OF CLIMB										LESS. BY OAT	80
LESS	LESS	20	30	40	50	63.5	75	80	SUM		
440											
460											
475	0.1			0.1	0.1				0.3		
480	0.7			0.2	0.1				0.9		
485											
490		0.1							0.1		
SUM	0.8	0.1		0.3	0.2				1.4		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT, BY RATE OF CLIMB										LESS. BY OAT	90
LESS	LESS	20	30	40	50	63.5	75	80	SUM		
440	0.3								0.3		
460	0.2								0.2		
475					0.1				0.1		
480				0.1					0.1		
485		0.1		0.1					0.2		
490											
SUM	0.5	0.1		0.2	0.1				0.9		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT, BY RATE OF CLIMB										LESS. BY OAT	SUM
LESS	LESS	20	30	40	50	63.5	75	80	SUM		
440	0.3								0.3		
460	0.2								0.2		
475	0.1	0.1	0.1	0.1	0.2				0.7		
480	0.8	0.3	0.1	0.3	0.1				1.6		
485		0.3		0.1					0.4		
490		0.1							0.1		
SUM	1.5	0.9	0.2	0.5	0.3				3.3		

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -2100. BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460										
475										
480	0.2	0.2		0.1	0.1				0.6	
485		0.1							0.1	
490										
SUM	0.2	0.3		0.1	0.1				0.7	
MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -2100. BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440			0.2						0.2	
460										
475	0.1	0.2	0.1	0.1					0.5	
480		0.1	0.4	0.3					0.8	
485			0.3	0.1					0.4	
490	0.1	0.2							0.3	
SUM	0.2	0.5	1.1	0.4					2.2	
MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -2100. BY OAT										90
LESS	20	30	40	50	63.5	75	80	SUM		
440	0.1								0.1	
460	0.2								0.2	
475	0.4								0.4	
480	0.1	0.2	0.2	0.1	0.1				0.7	
485	0.1		0.1	0.1	0.1				0.2	
490	0.1								0.2	
SUM	0.9	0.2	0.3	0.2	0.1				1.8	
MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -2100. BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440	0.1								0.1	
460	0.2			0.2					0.5	
475	0.4								0.4	
480	0.1	0.3	0.4	0.2	0.1				1.2	
485	0.3	0.2	0.1	0.5	0.4				1.6	
490	0.1	0.1	0.1	0.3	0.1				0.7	
SUM	1.2	0.7	0.9	1.3	0.6				4.7	
MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -1800. BY OAT										60
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460										
475										
480	0.1	0.1							0.2	
485		0.1							0.1	
490										
SUM	0.1	0.2							0.2	

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -1800. BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460										
475		0.2	0.1	0.1	0.1			0.4		
480	0.1	0.1	0.7		0.1			0.9		
485		0.4	0.1	0.1	0.2			0.8		
490										
SUM	0.1	0.7	0.8	0.2	0.3			2.2		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -1800. BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440	0.1							0.1		
460	0.2		0.2		0.1			0.5		
475	0.2	0.2	0.2	0.3	0.4			1.3		
480	0.3	0.2	0.3	0.3	1.4			2.5		
485	0.1	0.2			0.2			0.6		
490		0.1						0.1		
SUM	0.9	0.8	0.7	0.6	2.1			5.1		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -1800. BY OAT										90
LESS	20	30	40	50	63.5	75	80	SUM		
440	0.2							0.2		
460	0.5							0.5		
475	0.3		0.1	0.1				1.0		
480	0.1		0.1		0.6			0.8		
485	0.1		0.1	0.6	0.5			1.2		
490	0.2	0.1	0.1	0.2	0.1			0.6		
SUM	2.0	0.2	0.3	0.9	1.2			4.6		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -1800. BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440	0.2	0.1						0.3		
460	0.6							0.6		
475	1.0		0.3	0.1	0.1			1.5		
480	0.3	0.2	0.3	0.4	1.1			2.3		
485	0.6	0.3	1.2	1.0	1.9			4.9		
490	0.3	0.8	0.2	0.3	0.5			2.1		
SUM	3.0	1.8	2.0	1.7	3.6			12.1		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -1500. BY OAT										60
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460										
475										
480				0.1				0.1		
485										
490										
SUM				0.1				0.1		

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -1500. BY OAT										70
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440										
460										
475	0.0					0.2			0.3	
480	0.1	0.2	0.1		0.1				0.6	
485	0.1	0.1	0.4						0.6	
490	0.1		0.1						0.2	
SUM	0.3	0.3	0.5		0.1	0.2			1.6	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -1500. BY OAT										80
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440										
460			0.2		0.2				0.4	
475	0.2	0.3	0.6	0.5	0.9				2.5	
480	0.8	0.2	0.7	0.6	1.3				3.6	
485	0.3	1.0	0.8	0.7	0.7				3.5	
490			0.1		0.1				0.2	
SUM	1.3	1.5	2.5	1.8	3.2				10.3	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -1500. BY OAT										90
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440	0.4								0.4	
460	1.5								1.5	
475	1.0	0.5	0.3		0.2				2.1	
480	0.3	0.2	0.6	0.5	0.3				1.8	
485	0.3	0.5	1.4	2.5	1.7				6.3	
485	0.2		0.4	0.9	0.6				2.1	
490	0.1		0.1	0.1					0.3	
SUM	3.8	1.2	2.8	4.1	2.8				14.5	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -1500. BY OAT										SUM
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440	0.4								0.4	
460	1.5								1.5	
475	1.0	0.5	0.6		0.4				2.5	
480	0.5	0.5	1.2	1.0	1.1	0.2			4.6	
480	1.2	0.9	2.2	3.2	3.1				10.6	
485	0.6	1.1	1.6	1.6	1.3				6.2	
490	0.2		0.3	0.1	0.1				0.8	
SUM	5.3	3.0	5.9	6.0	6.1	0.2			26.6	

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -1200. BY OAT										60
LESS	LESS	20	30	40	50	63.5	75	80	SUM	
440										
460			0.3						0.3	
475		0.1	0.1	0.1	0.1				0.3	
480			0.1						0.1	
485										
490										
SUM		0.1	0.4	0.1	0.1				0.6	

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -1200. BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460			0.1	0.4	0.1			0.7		
475	0.5	0.9	0.3	0.3	0.6	0.4		2.9		
480	0.5	0.6	0.5	0.4	0.3	0.2		2.6		
485	0.1		0.6	0.3				0.9		
490	0.1	0.4						0.5		
SUM	1.2	1.9	1.4	1.1	1.3	0.7		7.6		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -1200. BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440								0.1		
460	0.5	0.1	0.6	0.1	0.7	0.1		2.0		
475	0.3	0.9	0.5	1.6	3.3	0.5		7.0		
480	0.9	1.9	1.2	3.6	5.3	1.0		13.9		
485	0.8	0.4	1.3	1.3	0.7			4.4		
490	0.2	0.3			0.2			0.7		
SUM	2.6	3.6	3.6	6.6	10.2	1.6		28.1		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -1200. BY OAT										90
LESS	20	30	40	50	63.5	75	80	SUM		
440	0.1							0.1		
460	0.2	0.1						0.3		
460	0.9	0.7	0.6	0.3	0.2	0.1		2.7		
475	0.4	1.0	1.9	2.2	2.2			7.7		
480	1.4	1.5	2.5	4.5	5.5	0.1		15.5		
485	0.5	0.8	1.0	1.9	1.7	0.1		6.0		
490	0.1	0.1	0.5	0.2	0.3			1.3		
SUM	3.6	4.2	6.5	9.0	10.0	0.3		33.5		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -1200. BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440	0.1							0.1		
460	0.2	0.1						0.3		
460	1.4	0.8	1.4	0.4	1.3	0.3		5.6		
475	1.2	2.9	2.7	4.1	6.2	0.8		17.9		
480	2.8	4.0	4.3	8.6	11.1	1.3		32.1		
485	1.4	1.1	2.9	3.5	2.4	0.1		11.4		
490	0.4	0.8	0.5	0.2	0.5			2.5		
SUM	7.5	9.8	11.8	16.8	21.5	2.6		69.9		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -900. BY OAT										60
LESS	20	30	40	50	63.5	75	80	SUM		
440								0.2		
460			0.1	0.1				0.6		
475				0.1	0.1	0.4		0.8		
480	0.1			0.2	0.5			0.5		
485			0.1	0.5	0.1			0.1		
490		0.1						0.1		
SUM	0.1	0.1	0.2	0.7	0.7	0.4		2.2		

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -900. BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440										1.7
460	0.3	0.3	0.2	0.6	0.1	0.1				5.8
475		0.8	0.3	2.5	2.0	0.2				7.1
480	0.3	0.9	1.9	0.7	2.7	0.4				2.9
485	0.1	0.6	1.1	0.2	0.8					0.3
490	0.1	0.1		0.1						17.7
SUM	0.8	2.7	3.6	4.1	5.7	0.8				

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -900. BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440	0.1		0.1							0.2
460	0.6	1.5	0.9	0.8	1.8	0.2				5.8
475	1.0	2.8	4.0	5.3	5.8	1.3				20.2
480	1.4	2.3	4.0	7.5	9.9	0.8				26.1
485	0.8	1.3	2.5	2.0	3.3	0.2				10.2
490	0.2	0.3	0.7	0.8	0.5					2.5
SUM	4.1	8.2	12.3	16.4	21.3	2.6				65.0

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -900. BY OAT										90
LESS	20	30	40	50	63.5	75	80	SUM		
440	0.2									0.2
460	0.8	0.1	0.1							1.0
480	0.9	1.4	1.0	0.5	0.5	0.4		0.1		4.8
475	1.8	2.2	3.1	2.3	3.6	0.7	0.1			13.7
480	1.8	2.7	2.4	4.2	4.7	0.1				15.8
485	1.1	1.8	2.4	3.3	2.6	0.5				11.9
490	0.5	0.7	1.0	0.1	0.6					3.0
SUM	7.1	8.8	10.1	10.4	12.1	1.7	0.1	0.1		50.4

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -900. BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440	0.2									0.2
460	0.9	0.1	0.2							1.1
480	1.8	3.2	2.2	2.0	2.3	0.8		0.1		12.4
475	2.8	5.7	7.4	10.3	11.5	2.6	0.1			40.4
480	3.6	6.0	8.4	12.6	17.8	1.3				49.8
485	2.1	3.7	6.2	5.9	6.9	0.8				25.4
490	0.8	1.2	1.8	0.9	1.2					5.9
SUM	12.2	19.8	26.2	31.6	39.8	5.5	0.1	0.1		135.2

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -600. BY OAT										60
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460										
475			0.1	0.3						0.4
480		0.1	0.3	1.3		0.3				2.1
485		0.3		0.1	0.2					0.6
490										
SUM		0.4	0.3	1.5	0.5	0.3				3.1



TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -600. BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460		0.8	0.3	0.4	1.3	0.6				3.5
475	0.1	0.6	1.7	4.3	4.1	0.9				11.7
480	0.6	2.1	5.2	7.3	7.2	1.3				23.6
485	0.5	1.1	1.6	1.2	2.5	0.3				7.1
490	0.4	0.1	0.3	0.3	0.3					1.5
SUM	1.4	4.7	9.1	13.5	15.4	3.1				47.3

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -600. BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440				0.1						0.1
460	0.7	2.8	4.3	4.0	4.5	0.8	0.1	0.1		17.7
475	1.2	4.0	11.0	21.7	20.1	3.4				61.4
480	2.4	4.8	10.9	18.5	33.1	3.6				73.3
485	0.7	3.4	4.3	7.9	13.9	1.2				31.5
490	1.0	1.2	0.5	0.8	1.9					5.5
SUM	6.0	16.4	31.3	52.9	73.7	9.0	0.1	0.1		189.5

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -600. BY OAT										90
LESS	20	30	40	50	63.5	75	80	SUM		
440	0.3	0.1								0.3
460	0.4	0.1		0.1				0.3		0.9
475	1.8	5.2	3.1	3.4	2.5	0.3	0.1	0.2		16.6
480	2.8	7.5	7.2	6.9	10.6	2.5				37.6
485	3.7	6.8	10.4	14.3	23.0	2.4				60.6
490	2.1	2.5	5.9	8.8	14.9	1.7				35.9
490	0.9	1.0	0.7	1.0	2.2	0.1				6.0
SUM	12.0	23.2	27.3	34.5	53.3	7.0	0.1	0.5		158.0

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -600. BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440	0.3	0.1		0.1						0.4
460	0.4	0.3	0.2	0.1				0.3		1.4
475	2.5	8.8	7.7	7.8	8.3	1.6	0.2	0.3		37.3
480	4.1	12.1	19.9	33.0	35.1	6.9				111.2
485	6.6	13.8	26.9	41.3	63.3	7.7				159.6
490	3.3	7.3	11.7	18.0	31.6	3.2				75.1
490	2.3	2.3	1.6	2.2	4.5	0.1				12.9
SUM	19.5	44.7	68.0	102.4	147.9	19.4	0.2	0.6		397.8

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -300. BY OAT										60
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460					0.2					0.2
475			0.1	0.7	0.6	0.4				1.8
480	0.1	0.2	0.3	1.7	0.9					3.2
485		0.2	0.2	0.3	0.3					1.0
490				0.1						0.1
SUM	0.1	0.4	0.6	2.8	1.9	0.6				6.2

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -300. BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440										
475	0.1	0.7	0.9	0.8	2.3	1.5				6.3
480	0.9	1.6	5.3	11.1	10.1	5.8				34.8
485	1.2	2.9	6.8	15.3	28.2	2.4				56.7
490	0.2	1.4	3.7	3.7	13.8	2.1				24.9
490	0.3	0.1	0.1	0.2	0.5					1.3
SUM	2.7	6.7	16.8	31.2	54.9	11.7				124.1

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -300. BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440	0.1				0.1					0.1
460	1.4	2.8	5.8	5.7	6.1	1.0				22.8
475	2.0	5.0	10.8	40.0	52.4	11.8	0.1			122.2
480	3.1	5.3	12.0	34.7	47.6	12.9	0.2			135.9
485	1.9	3.2	4.6	15.4	30.3	4.1				59.5
490	0.8	0.7	1.8	2.2	5.8	0.5				11.8
SUM	9.2	17.0	34.9	98.1	162.3	30.4	0.3			352.3

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -300. BY OAT										90
LESS	20	30	40	50	63.5	75	80	SUM		
440	0.9	0.3								1.3
460	0.8	0.3	0.1	0.1			0.1			1.4
475	2.7	5.9	5.1	7.0	5.5	1.2	0.2	0.1		27.7
480	3.0	9.9	16.2	19.7	28.6	3.8	0.1			81.3
480	3.5	10.8	19.2	24.3	49.1	8.5				115.3
485	3.2	4.0	8.3	15.3	32.3	2.5				65.6
490	0.5	1.1	1.5	4.4	6.4	1.0				15.0
SUM	14.6	32.5	50.3	70.8	122.0	17.0	0.3	0.2		307.5

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB -300. BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440	0.9	0.3								1.3
460	0.9	0.3	0.1	0.1	0.1		0.1			1.5
475	4.2	9.5	11.7	13.5	14.0	3.9	0.2	0.1		57.0
475	5.9	16.5	32.4	71.5	91.8	21.9	0.2			240.2
480	7.2	19.1	38.4	76.1	145.7	23.8	0.2			311.0
485	5.3	8.9	16.7	34.8	76.7	8.6				151.0
490	1.4	2.0	3.4	6.9	12.8	1.5				28.1
SUM	26.6	56.6	102.6	202.8	341.1	59.7	0.6	0.2		790.1

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB 300. BY OAT										60
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460										
475										
480	0.1			0.2						0.3
485				0.1						0.1
490				0.1	0.1					0.1
SUM	0.1			0.4	0.1					0.5

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB										300.	BY	OAT	70
LESS	LESS	20	30	40	50	63.5	75	80	SUM				
440									0.3				
460		0.1			0.1	0.1			0.3				
475		0.1	0.3	0.3	0.8	0.5			2.1				
480	0.1	0.5	0.6	0.8	2.0	0.3			4.3				
485	0.1	0.1	0.2	0.4	0.5				1.3				
490		0.1	0.1	0.3	0.2				0.5				
SUM	0.2	0.8	1.2	1.8	3.5	0.9			8.5				

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB										300.	BY	OAT	80
LESS	LESS	20	30	40	50	63.5	75	80	SUM				
440									2.2				
460	0.1	0.3	0.2	0.5	0.7	0.4			7.0				
475	0.1	0.5	0.7	2.5	2.5	0.7			12.3				
480	0.9	1.1	0.9	3.5	4.9	0.8	0.1		7.1				
485	0.2	0.5	1.4	1.9	2.7	0.3			2.6				
490	0.2	0.3	0.5	0.5	1.2				31.1				
SUM	1.5	2.6	3.6	9.0	17.0	2.2	0.1						

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB										300.	BY	OAT	90
LESS	LESS	20	30	40	50	63.5	75	80	SUM				
440									0.1				
460	0.1			0.2					0.3				
475	0.1	0.6	0.9	0.8	0.8	0.6	0.2		3.9				
480	0.7	1.4	1.3	2.3	3.5	0.7			10.0				
485	0.6	0.9	2.3	4.6	9.4	1.4			19.1				
485	0.3	1.1	1.0	2.5	3.9	0.6			9.4				
490	0.3		0.2	0.4	0.3	0.1			1.4				
SUM	2.0	4.0	5.7	10.7	18.0	3.4	0.2	0.2	44.2				

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB										300.	BY	OAT	SUM
LESS	LESS	20	30	40	50	63.5	75	80	SUM				
440									0.1				
460	0.1			0.2					0.3				
475	0.2	0.9	1.1	1.3	1.5	1.1	0.2		6.4				
480	0.8	2.0	2.3	5.1	6.9	1.9			19.0				
485	1.7	2.5	3.8	9.1	16.3	2.5	0.1		36.1				
485	0.6	1.7	2.6	4.9	7.1	0.9			17.8				
490	0.4	0.3	0.8	1.3	1.7	0.1			4.6				
SUM	3.9	7.4	10.6	21.9	33.6	6.5	0.3	0.2	84.3				

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB										600.	BY	OAT	60
LESS	LESS	20	30	40	50	63.5	75	80	SUM				
440													
460													
475						0.1			0.1				
480					0.1				0.1				
485													
490					0.1	0.1			0.2				
SUM					0.1	0.1			0.2				

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB										600.	BY	OAT	70
LESS	20	30	40	50	63.5	75	80	SUM					
440													
460				0.1				0.1					
475	0.1			0.1				0.2					
480	0.1			0.2	0.1			0.4					
485		0.1		0.2				0.3					
490													
SUM	0.2	0.1		0.7	0.1			1.0					

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB										600.	BY	OAT	80
LESS	20	30	40	50	63.5	75	80	SUM					
440													
460		0.1		0.2	0.2			0.5					
475	0.2	0.2	0.2	0.3	0.7	0.2		1.7					
480	0.1	0.1	0.3	0.7	1.0	0.1		2.2					
485	0.1	0.6	0.3	0.6	0.4			2.0					
490	0.1		0.1	0.4	0.5	0.1		1.1					
SUM	0.4	1.0	0.8	2.2	2.8	0.4		7.6					

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB										600.	BY	OAT	90
LESS	20	30	40	50	63.5	75	80	SUM					
440	0.1							0.1					
460	0.2	0.1						0.1					
475	0.2	0.4	0.2	0.3	0.2	0.3		1.5					
480	0.2	0.3	0.4	0.6	0.8	0.2		2.4					
485		0.7	0.2	0.7	1.7	0.3		3.6					
485		0.2	0.3	0.6	1.1			2.2					
490		0.1	0.2	0.3	0.3	0.1		0.6					
SUM	0.4	1.6	1.3	2.3	4.0	0.8		10.4					

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB										600.	BY	OAT	SUM
LESS	20	30	40	50	63.5	75	80	SUM					
440	0.1							0.1					
460		0.1						0.1					
460	0.2	0.5	0.2	0.5	0.6	0.3		2.1					
475	0.4	0.5	0.6	0.8	1.6	0.4		4.4					
480	0.1	0.8	0.5	1.4	3.0	0.5		6.4					
485	0.1	0.8	0.7	1.3	1.7			4.5					
490	0.1	0.1	0.3	0.4	0.7	0.2		1.7					
SUM	0.8	2.8	2.2	4.5	7.6	1.4		19.2					

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB										900.	BY	OAT	80
LESS	20	30	40	50	63.5	75	80	SUM					
440													
460													
475													
480													
485													
490			0.1					0.1					
SUM			0.1					0.1					

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. DESCNT. BY RATE OF CLIMB 900. BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460										
475										
480										
485										
490		0.1							0.1	
SUM		0.1							0.1	
MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY. BY RATE OF CLIMB -1800. BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460										
475										
480				0.1					0.1	
485										
490										
SUM				0.1					0.1	
MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY. BY RATE OF CLIMB -1800. BY OAT										90
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460				0.1					0.1	
475										
480										
485										
490										
SUM				0.1					0.1	
MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY. BY RATE OF CLIMB -1800. BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460				0.1					0.1	
475										
480				0.1					0.1	
485										
490										
SUM				0.2					0.2	
MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY. BY RATE OF CLIMB -1500. BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460				0.1					0.1	
475										
480				0.2					0.2	
485										
490										
SUM				0.3					0.3	

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB -1500, BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460					0.1			0.1		
475					0.1			0.1		
480				0.1				0.1		
485				0.1				0.1		
490										
SUM				0.2	0.2			0.4		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB -1500, BY OAT										90
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460				0.1				0.1		
475				0.1	0.1			0.2		
480				0.2	0.1			0.3		
485										
490				0.1				0.1		
SUM				0.6	0.1			0.7		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB -1500, BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460				0.2	0.1			0.3		
475				0.1	0.1			0.3		
480				0.6	0.1			0.6		
485				0.1				0.1		
490				0.1				0.1		
SUM				1.1	0.3			1.4		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB -1200, BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460				0.7				0.7		
475				0.2				0.2		
480		0.1	0.2	0.3	0.1			0.8		
485			0.1					0.1		
490										
SUM		0.1	0.3	1.3	0.1			1.8		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB -1200, BY OAT										90
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460				0.2				0.2		
475		0.2	0.1	1.4	0.1			1.7		
480			0.4	3.1	0.6			4.1		
485				0.8	0.1			0.9		
490										
SUM		0.2	0.4	5.4	0.9			6.9		

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB -1200. BY OAT										90
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460			0.1	0.9	0.2			1.1		
475			0.3	1.6	0.3			2.2		
480			0.2	2.1	0.6			2.9		
485				0.7				0.7		
490			0.2	0.2				0.4		
SUM			0.9	5.5	1.0			7.4		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB -1200. BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460			0.1	1.8	0.2			2.1		
475		0.2	0.4	3.1	0.4			4.1		
480		0.1	0.8	5.5	1.3			7.8		
485			0.1	1.5	0.1			1.7		
490			0.2	0.2				0.4		
SUM		0.3	1.7	12.2	2.0			16.2		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB -900. BY OAT										60
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460										
475										
480				0.1				0.1		
485										
490										
SUM				0.1				0.1		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB -900. BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460		0.2	0.1	0.4				0.7		
475				0.9	0.5			1.4		
480			0.3	0.5	0.1			1.0		
485			0.2	0.2				0.4		
490										
SUM		0.2	0.6	2.1	0.7			3.6		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB -900. BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460	0.1		0.1	0.7				0.9		
475		0.1	0.5	1.8	0.4			2.9		
480			1.2	4.1	1.1			6.4		
485		0.2	0.6	1.3	0.1			2.2		
490			0.1	0.1				0.2		
SUM	0.1	0.3	2.6	7.9	1.6			12.6		

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB -900. BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460				0.2	0.1			0.3		
475	0.1	0.2	1.0	2.3	1.0			4.7		
480		0.2	1.1	4.2	0.8			6.4		
485		0.1	0.7	2.0	0.3			3.1		
490			0.1	0.6	0.1			0.8		
SUM	0.1	0.6	3.0	9.4	2.3			15.3		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB -900. BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460	0.1		0.2	0.2	1.3	0.1		2.0		
475		0.1	0.4	1.6	5.0	2.0		9.0		
480			0.2	2.7	9.0	2.0		13.9		
485			0.3	1.5	3.5	0.4		5.7		
490				0.2	0.7	0.1		1.0		
SUM	0.1	0.1	1.1	6.2	19.5	4.6		31.6		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB -600. BY OAT										60
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460										
475				0.2				0.2		
480				0.3	0.1			0.4		
485			0.1					0.1		
490										
SUM			0.1	0.5	0.1			0.8		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB -600. BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460		0.8	0.9	2.7	0.6			5.0		
475		0.4	1.6	7.1	1.0			10.1		
480		0.1	2.0	12.4	1.3			15.9		
485			1.0	2.8				3.8		
490			0.1					0.1		
SUM		1.3	5.6	25.0	2.9			34.9		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB -600. BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460		0.7	1.2	3.0	0.2		0.1	5.1		
475			7.1	22.3	2.8	0.3		32.5		
480		0.6	5.6	27.8	4.4			38.4		
485	0.1	0.1	2.0	8.0	0.2			10.5		
490		0.2	0.1	0.5				0.9		
SUM	0.1	1.6	16.1	61.7	7.6	0.3	0.1	87.4		



TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SFG. STEADY, BY RATE OF CLIMB -600, BY OAT										90
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460		0.2	0.4	7.7	0.3	0.2		3.8		
475		0.3	3.1	11.9	2.8	0.2	0.1	18.4		
480	0.1	0.2	6.0	27.3	3.8			37.5		
485	0.1	0.2	1.3	6.9	2.5			11.1		
490			0.1	1.9	0.3			2.3		
SUM	0.2	1.0	10.9	50.7	9.8	0.3	0.1	73.0		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB -600, BY OAT										SUM	
LESS	20	30	40	50	63.5	75	80	SUM			
440											
460		1.7	2.5	8.3	1.2	0.2	0.1	13.8			
475		0.7	11.9	41.5	6.6	0.4	0.1	61.2			
480	0.1	0.9	13.7	67.9	9.7			92.2			
485	0.1	0.4	4.4	17.8	2.7			25.5			
490		0.2	0.3	2.4	0.3			3.3			
SUM	0.1	0.2	3.9	32.7	138.0	20.5	0.6	0.1	196.1		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB -300, BY OAT										60
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460				1.9				1.9		
480			1.3	9.0	0.7			11.0		
485			0.2	4.3	0.1			4.6		
490										
SUM			1.5	15.1	0.8			17.4		

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB -300, BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460		23.3	11.7	65.5	11.3			111.8		
475		0.4	17.6	126.1	21.3			165.4		
480		2.6	38.6	180.5	25.2			246.8		
485			18.7	52.4	4.5			75.6		
490	0.1	0.2	2.1	1.9	0.6			5.0		
SUM	0.1	26.6	88.6	426.5	62.9			604.7		

MINUTES FOR TORQUE VS RPM BY MISSION SFG. STEADY, BY RATE OF CLIMB -300, BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460	0.1	1.6	9.0	97.3	8.3	1.2	0.1	112.6		
475	0.1	3.7	83.1	345.7	67.2	1.7		501.5		
480	0.1	5.6	80.1	388.3	66.5	2.0		542.6		
485		1.6	24.7	117.4	9.4	1.0		154.1		
490			7.8	7.4	1.7			16.8		
SUM	0.3	12.5	204.6	951.0	153.1	5.9	0.1	1327.5		

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY. BY RATE OF CLIMB -300. BY OAT 90									
LESS	LESS	20	30	40	50	63.5	75	80	SUM
440									
460	0.2	0.3	12.4	15.2	12.0	4.9	0.1		45.0
475	0.1	2.0	47.4	141.5	51.8	2.7			245.3
480	0.1	2.6	32.3	255.6	71.3	3.0	0.1		364.9
485	0.2	0.9	13.4	101.9	44.6	0.7			161.7
490		0.2	3.2	15.7	2.6	0.1			21.9
SUM	0.6	6.1	108.6	579.8	182.2	11.3	0.2		838.8

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY. BY RATE OF CLIMB -300. BY OAT SUM									
LESS	LESS	20	30	40	50	63.5	75	80	SUM
440									
460		0.3	25.2	33.0	177.9	31.6	6.1	0.2	269.5
475		0.2	6.1	148.0	615.1	140.3	4.4		914.1
480		0.2	10.8	152.2	833.4	163.6	5.0	0.1	1165.3
485		0.2	2.5	57.0	276.0	58.5	1.7		395.9
490	0.1		0.4	13.1	25.0	4.9	0.1		43.6
SUM	0.1	0.9	45.1	403.3	1927.5	398.9	17.2	0.3	2788.4

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY. BY RATE OF CLIMB 300. BY OAT 60									
LESS	LESS	20	30	40	50	63.5	75	80	SUM
440									
460									
475									
480					0.9				0.9
485					0.1				0.1
490									
SUM					1.0				1.0

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY. BY RATE OF CLIMB 300. BY OAT 70									
LESS	LESS	20	30	40	50	63.5	75	80	SUM
440									
460			0.4	0.5	2.0	1.1			3.9
475			0.2	0.5	4.2	2.2			7.1
480				1.2	7.2	2.8			11.2
485				0.8	2.4	0.1			3.3
490									
SUM			0.6	3.0	15.8	6.1			25.5

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY. BY RATE OF CLIMB 300. BY OAT 80									
LESS	LESS	20	30	40	50	63.5	75	80	SUM
440									
460			0.2	0.8	1.9	1.1			4.0
475				2.4	18.3	3.3			24.1
480			0.9	3.5	28.0	6.5			38.8
485			0.2	2.2	12.6	1.1			16.2
490				0.5	0.7				1.2
SUM			1.3	9.4	61.5	12.0			84.2

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB										300.	BY	OAT	90
LESS	20	30	40	50	63.5	75	80	SUM					
440													
460	0.1	0.2	0.1		1.4	0.5	0.5		2.8				
475			0.3	3.2	10.4	2.5	0.3	0.2	16.9				
480			0.2	3.2	26.0	3.8			33.1				
485			0.1	1.6	8.3	3.1			13.1				
490				0.4	2.3	0.3			3.1				
SUM	0.1	0.2	0.7	8.5	48.4	10.2	0.8	0.2	69.0				

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB										300.	BY	OAT	SUM
LESS	20	30	40	50	63.5	75	80	SUM					
440													
460	0.1	0.2	0.7	1.2	5.4	2.7	0.5		10.7				
475			0.5	6.1	32.9	8.0	0.3	0.2	48.1				
480			1.0	8.0	62.0	13.0			84.0				
485			0.3	4.6	23.4	4.3			32.7				
490				1.0	3.0	0.3			4.3				
SUM	0.1	0.2	2.6	20.9	126.6	28.4	0.8	0.2	179.8				

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB										600.	BY	OAT	60
LESS	20	30	40	50	63.5	75	80	SUM					
440													
460													
475													
480				0.1	0.1	0.1			0.3				
485													
490													
SUM				0.1	0.1	0.1			0.3				

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB										600.	BY	OAT	70
LESS	20	30	40	50	63.5	75	80	SUM					
440													
460					0.2				0.2				
475					0.5				0.5				
480					0.5	0.1			0.6				
485				0.1	0.3				0.4				
490													
SUM				0.1	1.6	0.1			1.8				

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB										600.	BY	OAT	80
LESS	20	30	40	50	63.5	75	80	SUM					
440													
460				0.1	0.3	0.2			0.6				
475				0.3	1.4	1.2			3.0				
480			0.1	0.2	3.8	1.0			5.0				
485				0.4	3.3	0.3			4.0				
490				0.1	0.2				0.3				
SUM			0.2	1.1	9.0	2.6			12.9				

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB										600.	BY	OAT	90
LESS	20	30	40	50	63.5	75	80	SUM					
440								0.4					
460				0.4				0.4					
475			0.2	1.6	0.3			2.2					
480		0.1	0.7	3.7	0.8			5.4					
485		0.1	0.2	1.9	0.7			2.8					
490			0.2	1.3	0.1			1.6					
SUM		0.2	1.3	9.0	1.9			12.4					

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB										600.	BY	OAT	SUM
LESS	20	30	40	50	63.5	75	80	SUM					
440													
460				0.1	1.0	0.2		1.3					
475				0.5	3.6	1.5		5.7					
480		0.2	1.0	8.1	2.0			11.4					
485		0.1	0.7	5.5	0.9			7.2					
490		0.1	0.2	1.5	0.1			1.9					
SUM		0.4	2.6	19.6	4.8			27.4					

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB										900.	BY	OAT	70
LESS	20	30	40	50	63.5	75	80	SUM					
440													
460				0.2				0.2					
475			0.1	0.1	0.1			0.4					
480			0.1	1.1	0.1			1.3					
485				0.4				0.4					
490													
SUM			0.2	1.8	0.2			2.3					

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB										900.	BY	OAT	80
LESS	20	30	40	50	63.5	75	80	SUM					
440													
460				0.1	0.1			0.2					
475				0.1	1.0	0.6		1.7					
480				0.7	1.7	1.4		3.8					
485				0.1	0.6	0.2		1.0					
490	0.1							0.1					
SUM	0.1		0.9	3.4	2.4			6.8					

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB										900.	BY	OAT	90
LESS	20	30	40	50	63.5	75	80	SUM					
440													
460				0.2				0.2					
475			0.2	1.2	0.3			1.7					
480		0.1	0.2	3.2	0.2			3.6					
485		0.1		1.0	0.2	0.1		1.4					
490			0.1					0.1					
SUM		0.1	0.6	5.6	0.7	0.1		7.1					

TABLE VIII - Continued

MINUTPS FOR TORQUE VS RPM BY MISSION SEG. STEADY. BY RATE OF CLIMB 900. BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460				0.6	0.1					0.7
475			0.5	2.4	1.0					3.8
480		0.1	1.0	5.9	1.7					8.7
485		0.1	0.1	2.0	0.5	0.1				2.7
490	0.1		0.1							0.2
SUM	0.1	0.1	1.7	10.8	3.3	0.1				16.2

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY. BY RATE OF CLIMB 1200. BY OAT										70
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460										
475				0.1						0.1
480				0.1						0.1
485				0.1						0.1
490										
SUM				0.3						0.3

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY. BY RATE OF CLIMB 1200. BY OAT										80
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460										
475										
480				0.5	0.1					0.6
485			0.1	0.1						0.2
490										
SUM			0.1	0.6	0.1					0.8

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY. BY RATE OF CLIMB 1200. BY OAT										90
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460				0.2						0.2
475				0.2						0.2
480				0.3	0.3					0.7
485				0.3						0.3
490										
SUM				1.1	0.3					1.5

MINUTPS FOR TORQUE VS RPM BY MISSION SEG. STEADY. BY RATE OF CLIMB 1200. BY OAT										SUM
LESS	20	30	40	50	63.5	75	80	SUM		
440										
460				0.2						0.2
475				0.3						0.3
480				1.0	0.4					1.4
485			0.1	0.6						0.7
490										
SUM			0.1	2.1	0.4					2.6

TABLE VIII - Continued

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB 1500, BY OAT 80									
	LESS	20	30	40	50	63.5	75	80	SUM
LESS									
440									
460									
475					0.1				0.1
480					0.1				0.1
485									
490									
SUM					0.2				0.2

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB 1500, BY OAT 90									
	LESS	20	30	40	50	63.5	75	80	SUM
LESS									
440									
460									
475									
480									
485					0.1				0.1
490									
SUM					0.1				0.1

MINUTES FOR TORQUE VS RPM BY MISSION SEG. STEADY, BY RATE OF CLIMB 1500, BY OAT SUM									
	LESS	20	30	40	50	63.5	75	80	SUM
LESS									
440									
460									
475					0.1				0.1
480					0.1				0.1
485					0.1				0.1
490									
SUM					0.3				0.3

MINUTES FOR TORQUE VS RPM BY MISSION SEG. SUM, BY RATE OF CLIMB SUM, BY OAT SUM									
	LESS	20	30	40	50	63.5	75	80	SUM
LESS	2.3	0.5			0.4	0.1		1.1	4.3
440	6.2	1.0	0.5	0.7	2.0	0.6	0.2	4.5	15.7
460	18.5	32.0	88.4	149.1	371.8	120.6	33.1	23.5	837.0
475	23.8	67.1	202.1	761.4	1867.9	584.8	66.2	35.4	3608.7
480	34.9	103.8	378.2	1206.5	3089.5	807.4	65.6	19.6	5705.6
485	22.0	61.9	194.6	543.5	1285.6	294.4	12.5	2.2	2416.6
490	11.7	20.0	42.6	108.9	183.1	28.5	0.7	0.1	395.6
SUM	119.4	286.3	906.3	2770.0	6800.3	1836.4	178.3	86.4	12983.5

TABLE IX. CYCLIC PEAKS FOR CYCLIC STEADY VERSUS CYCLIC DEVIATION BY AIRSPEED DURING STEADY-STATE MISSION SEGMENT

CYCLIC STEADY VS CYCLIC PEAKS BY COLL. STEADY 30											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20								1			1
-10											
10											
20											
30											
40											
SUM								1			1
TIME	0.	0.	0.	0.	0.	2.4	1.3	1.4	0.	0.	5.1

CYCLIC STEADY VS CYCLIC PEAKS BY COLL. STEADY 40											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20							1	7	4		12
-10											
10					1	1	3	5			10
20											
30											
40											
SUM					1	1	4	12	4		22
TIME	0.	5.6	1.1	9.0	56.6	161.2	37.8	23.9	11.3	1.2	307.6

CYCLIC STEADY VS CYCLIC PEAKS BY COLL. STEADY 50											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20					2			16	5		23
-10											
10				1	5	2	1	16	2	1	28
20					2						2
30											
40											
SUM				1	9	2	1	32	7	1	53
TIME	28.9	22.6	17.2	227.4	600.4	311.3	37.0	41.9	48.3	14.4	1349.3

TABLE IX - Continued

CYCLIC STEADY VS CYCLIC PEAKS BY COLL. STEADY											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20					2			1	2		5
-10					2			3			6
10							1				1
20							1				
30											
40											
SUM					4		2	4	2		12
TIME	20.5	38.0	14.8	234.6	776.9	215.8	8.5	14.1	10.2	1.1	1334.5



**TABLE X. CYCLIC PEAKS FOR CYCLIC STEADY VERSUS CYCLIC DEVIATION BY ALTITUDE DURING STEADY-STATE MISSION SEGMENT**

CYCLIC STEADY VS CYCLIC PEAKS BY ALTITUDE 1000											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20							1	1	2		4
-10											
10				1	4	1	1				7
20											
30											
40											
SUM				1	4	1	2	1	2		11
TIME	0.	4.7	8.6	25.9	52.5	33.4	17.1	11.5	15.4	2.9	171.9

CYCLIC STEADY VS CYCLIC PEAKS BY ALTITUDE 2000											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20					4			23	9		36
-10											
10					3	2	4	22	2	1	34
20							1				1
30											
40											
SUM					7	2	5	45	11	1	71
TIME	52.9	64.2	132.6	344.9	1094.3	557.9	65.4	67.2	54.4	13.9	2447.8

CYCLIC STEADY VS CYCLIC PEAKS BY ALTITUDE 4000											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20								1			1
-10											
10					1			2			3
20					2						2
30											
40											
SUM					3			3			6
TIME	21.4	10.5	29.9	147.2	324.4	94.1	2.1	1.1	0.	0.	630.6

TABLE XI. CYCLIC PEAKS FOR CYCLIC STEADY VERSUS CYCLIC DEVIATION BY AIRSPEED DURING STEADY-STATE MISSION SEGMENT

CYCLIC STEADY VS CYCLIC PEAKS BY VELOCITY LESS											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
=40											
=30											
=20					3		1	25	11		40
=10					2	1	5	24	2	1	35
10					1		1				2
20											
30											
40											
SUM					6	1	7	49	13	1	77
TIME	0.	0.	0.	1.1	28.2	8.1	29.6	80.6	69.8	16.7	234.2

CYCLIC STEADY VS CYCLIC PEAKS BY VELOCITY 40											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
=40											
=30											
=20											
=10											
10											
20					1						1
30											
40											
SUM					1						1
TIME	0.	0.	0.	0.	5.1	7.0	4.2	0.	0.	0.	16.4

CYCLIC STEADY VS CYCLIC PEAKS BY VELOCITY 70											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
=40											
=30											
=20											
=10											
10					1						1
20											
30											
40											
SUM					1						1
TIME	0.	0.	0.1	2.9	21.1	39.3	3.5	0.1	0.	0.	67.1

TABLE XI - Continued

CYCLIC STEADY VS CYCLIC PEAKS BY VELOCITY 80											
LESS	10	20	30	40	50	60	70	80	90	SUM	
LESS											
-40											
-30											
-20											
-10											
10				1							1
20											
30											
40											
SUM				1							1
TIME	0.	1.1	1.7	22.4	72.0	122.2	1.8	0.	0.	0.	221.2
CYCLIC STEADY VS CYCLIC PEAKS BY VELOCITY 90											
LESS	10	20	30	40	50	60	70	80	90	SUM	
LESS											
-40											
-30											
-20											
-10											
10					1						1
20											
30											
40											
SUM					1						1
TIME	3.2	16.9	29.1	82.8	252.6	109.2	5.9	0.	0.	0.	499.7
CYCLIC STEADY VS CYCLIC PEAKS BY VELOCITY 95											
LESS	10	20	30	40	50	60	70	80	90	SUM	
LESS											
-40											
-30											
-20											
-10											
10				2	1						3
20											
30											
40											
SUM				2	1						3
TIME	9.1	25.7	50.7	111.4	346.8	113.5	8.7	0.2	0.	0.	665.9

TABLE XI - Continued

CYCLIC STEADY VS CYCLIC PEAKS BY VELOCITY 100											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20											
-10											
10				1	1						2
20											
30											
40											
SUM				1	1						2
TIME	12.5	17.2	48.8	124.9	269.5	35.5	9.1	0.	0.	0.	517.5
CYCLIC STEADY VS CYCLIC PEAKS BY VELOCITY 105											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20					1						1
-10											
10					1						1
20											
30											
40											
SUM					2						2
TIME	23.2	12.9	25.2	78.6	165.1	12.7	1.4	0.	0.	0.	319.0

TABLE XII. CYCLIC PEAKS FOR CYCLIC STEADY VERSUS CYCLIC DEVIATION BY ROTOR RPM DURING STEADY-STATE MISSION SEGMENT

CYCLIC STEADY VS CYCLIC PEAKS BY RPM 460											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20					1			1	1		3
-10											
10					1			3			4
20											
30											
40											
SUM					2			4	1		7
TIME	9.2	10.6	15.3	50.4	95.6	93.5	11.6	6.1	9.0	3.3	300.6

CYCLIC STEADY VS CYCLIC PEAKS BY RPM 475											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20								7	4		11
-10											
10							2	8	1		11
20					1		1				2
30											
40											
SUM					1		3	15	5		24
TIME	24.0	12.5	47.2	156.1	503.8	235.9	20.0	20.9	20.6	5.8	1046.9

CYCLIC STEADY VS CYCLIC PEAKS BY RPM 480											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20					2			11	2		15
-10											
10				1	4	1	1	10		1	18
20					1						1
30											
40											
SUM				1	7	1	1	21	2	1	34
TIME	28.3	29.5	73.5	248.0	660.6	248.4	36.2	34.9	21.3	4.8	1385.5

TABLE XII - Continued

CYCLIC STADY VS CYCLIC PEAKS BY RPM 485											
LESS	LESS	10	20	30	40	50	60	70	80	90	SUM
-40											
-30											
-20					1		1	1	3		6
-10											
10					2	1	2	2	1		8
20											
30											
40											
SUM					3	1	3	3	4		14
TIME	15.3	26.3	28.9	60.8	194.8	103.7	11.1	14.3	15.6	1.5	472.3

CYCLIC STEADY VS CYCLIC PEAKS BY RPM 490											
LESS	LESS	10	20	30	40	50	60	70	80	90	SUM
-40											
-30											
-20								5	1		6
-10											
10					1	1		1			3
20											
30											
40											
SUM					1	1		6	1		9
TIME	1.5	0.5	6.2	2.7	17.4	11.3	5.6	5.2	3.2	1.4	54.9

CYCLIC STEADY VS CYCLIC PEAKS BY RPM SUM											
LESS	LESS	10	20	30	40	50	60	70	80	90	SUM
-40											
-30											
-20					4		1	25	11		41
-10											
10				1	8	3	5	24	2	1	44
20					2		1				3
30											
40											
SUM				1	14	3	7	49	13	1	88
TIME	74.3	79.3	171.1	518.0	1472.2	692.8	84.5	81.4	69.8	16.7	3260.1

TABLE XIII. CYCLIC PEAKS FOR AIRSPEED ACCELERATION VERSUS CYCLIC DEVIATION BY MISSION SEGMENT

ACCELERATION VS CYCLIC PEAKS BY MISSION SEGMENT ASCENT												
	LESS	-15.0	-12.0	-9.0	-6.0	-3.0	3.0	6.0	9.0	12.0	15.0	SUM
LESS					1	60	5	1				67
-40					2	206	17	1				226
-30						97	10					107
-20						45						45
-10												
10						56						56
20						1						1
30												
40												
SUM					3	465	32	2				502

ACCELERATION VS CYCLIC PEAKS BY MISSION SEGMENT MANUVR												
	LESS	-15.0	-12.0	-9.0	-6.0	-3.0	3.0	6.0	9.0	12.0	15.0	SUM
LESS				1	6	251	26					284
-40				1	17	1282	101	4				1405
-30				1	34	4473	179	1				4688
-20					38	6004	62	2				6106
-10												
10			2	5	30	1516	2					1555
20						97						97
30												
40												
SUM			2	8	125	13623	370	7				14135

ACCELERATION VS CYCLIC PEAKS BY MISSION SEGMENT DESCENT												
	LESS	-15.0	-12.0	-9.0	-6.0	-3.0	3.0	6.0	9.0	12.0	15.0	SUM
LESS						59						59
-40					2	150	4					156
-30					1	168	3					172
-20					2	201						203
-10												
10				5	4	87						96
20						5						5
30												
40												
SUM				5	9	670	7					691

TABLE XIV. CYCLIC PEAKS FOR ROTOR RPM VERSUS CYCLIC DEVIATION BY MISSION SEGMENT

RPM VS CYCLIC PEAKS BY MISSION SEGMENT ASCENT								
	LESS	440	460	475	480	485	490	SUM
LESS	1		4	15	31	12	4	67
-40			12	78	96	29	11	226
-30			6	28	38	32	3	107
-20	1		7	12	12	7	6	45
-10								
10			11	15	19	8	3	56
20					1			1
30								
40								
SUM	2		40	148	197	88	27	502
TIME	0.3	1.7	81.5	428.3	674.1	304.1	60.4	1550.4

RPM VS CYCLIC PEAKS BY MISSION SEGMENT MANUVR								
	LESS	440	460	475	480	485	490	SUM
LESS			13	52	178	38	3	284
-40		1	45	378	740	213	28	1405
-30	4	12	280	1488	2143	676	85	4688
-20	8	22	336	1539	2690	1260	251	6106
-10								
10	5	4	96	352	714	339	45	1555
20	2		3	27	50	12	3	97
30								
40								
SUM	19	39	773	3836	6515	2538	415	14135
TIME	1.1	6.5	329.4	1691.4	3032.1	1345.6	223.0	6629.1

RPM VS CYCLIC PEAKS BY MISSION SEGMENT DESCNT								
	LESS	440	460	475	480	485	490	SUM
LESS			4	17	26	8	4	59
-40	1		13	45	63	33	1	156
-30	2		26	46	64	32	2	172
-20		4	32	47	75	34	11	203
-10								
10		2	10	22	37	21	4	96
20			1		3	1		5
30								
40								
SUM	3	6	86	177	268	129	22	691
TIME	2.9	7.5	125.4	442.1	613.6	294.6	57.3	1543.5



TABLE XIV - Continued

RPM VS CYCLIC PEAKS BY MISSION SEGMENT STEADY								
	LESS	440	460	475	480	485	490	SUM
LESS								
-40								
-30								
-20			3	11	15	6	6	41
-10								
10			4	11	18	8	3	44
20				2	1			3
30								
40								
SUM			7	24	34	14	9	88
TIME	0.	0.	300.6	1046.9	1385.5	472.3	54.9	3260.1

TABLE XV. CYCLIC PEAKS FOR AIRSPEED VERSUS CYCLIC DEVIATION BY MISSION SEGMENT

VELOCITY VS CYCLIC PEAKS BY MISSION SEGMENT ASCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS	3	7	4	3	12	5	7	11	5	6	1	2				67
-40	12	47	42	18	14	22	19	20	12	11	6	3				226
-30	23	23	19	5	10	5	8	3	4	6	6	3				107
-20	42	7	1									1				45
-10																
10	55					1										56
20	1															1
30																
40																
SUM	176	79	66	26	36	33	34	34	21	23	7	6		1		502
TIME	157.9	198.1	172.3	142.5	173.0	194.9	180.8	141.9	112.7	69.0	31.1	12.9	2.9	0.5	0.	1950.6

VELOCITY VS CYCLIC PEAKS BY MISSION SEGMENT MANUVR																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS	42	78	44	16	23	15	17	13	14	10	10	1	1			266
-40	566	474	175	56	37	37	22	19	21	29	12	4	3			1405
-30	2938	1267	259	75	63	24	23	11	12	9	8	1	1	1		4688
-20	4862	1049	155	18	14	4	1	2	1							6106
-10																
10	1307	179	47	11	5	3	1		1	1						1995
20	87	9		1												97
30																
40																
SUM	9802	3052	630	177	142	83	64	45	49	49	30	6	5	1		14135
TIME	3325.3	1192.3	437.4	224.7	231.1	235.2	231.8	229.3	206.1	170.8	85.7	38.4	14.5	4.4	2.2	6629.1

VELOCITY VS CYCLIC PEAKS BY MISSION SEGMENT DESCNT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS	1	1					1	6	9	14	9	11	5	2		59
-40	9	9	3	4	5	16	9	13	20	28	21	11	5	1	2	156
-30	84	20	5	2	5	6	5	16	8	8	6	4	1	1	1	172
-20	164	24	3	1	1	3		5	2							203
-10																
10	78	7	3		2	1	4	1								96
20	3	2														5
30																
40																
SUM	338	63	15	7	13	26	19	41	39	50	36	26	11	4	3	691
TIME	169.6	92.9	84.6	64.2	64.5	105.6	136.9	165.9	176.9	179.2	153.1	82.3	46.7	13.0	6.2	1943.5

VELOCITY VS CYCLIC PEAKS BY MISSION SEGMENT STEADY																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS																
-40																
-30																
-20	40											1				41
-10																
10	35			1		1		1	3	2	1					44
20	2	1														3
30																
40																
SUM	77	1		1		1		1	3	2	2					74
TIME	234.2	16.4	58.0	67.1	132.9	271.2	337.0	499.7	665.9	517.5	319.0	136.8	43.9	9.2	1.4	3270.1

TABLE XVI. COLLECTIVE PEAKS FOR COLLECTIVE STEADY VERSUS COLLECTIVE DEVIATION BY CYCLIC STEADY DURING STEADY-STATE MISSION SEGMENT

COLL. STEADY VS COLLECTIVE PEAKS BY CYCLIC STEADY LESS											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20											
-10							1				1
10											
20											
30											
40											
SUM							1				1
TIME	0.	0.	0.	0.	0.	28.9	20.5	22.2	2.7	0.	74.3

COLL. STEADY VS COLLECTIVE PEAKS BY CYCLIC STEADY 10											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20							6				6
-10											
10											
20											
30											
40											
SUM							6				6
TIME	0.	0.	0.	0.	5.6	22.6	38.0	11.4	1.9	0.	79.3

COLL. STEADY VS COLLECTIVE PEAKS BY CYCLIC STEADY 30											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20						2		1			3
-10											
10						2	1				3
20											
30											
40											
SUM						4	1	1			6
TIME	0.	0.	0.	0.	9.0	227.4	234.6	47.1	0.	0.	518.0

TABLE XVI - Continued

COLL. STEADY VS COLLECTIVE PEAKS BY CYCLIC STEADY 40											
LESS	LESS	10	20	30	40	50	60	70	80	90	SUM
-40											
-30						1					1
-20						9	14	1			24
-10											
10						2	2				4
20											
30											
40											
SUM						12	16	1			29
TIME	0.	0.	0.	0.	56.6	600.4	776.9	38.2	0.	0.	1472.2

COLL. STEADY VS COLLECTIVE PEAKS BY CYCLIC STEADY 50											
LESS	LESS	10	20	30	40	50	60	70	80	90	SUM
-40											
-30											
-20					3	11	7				21
-10											
10											
20											
30											
40											
SUM					3	11	7				21
TIME	0.	0.	0.	2.4	161.2	311.3	219.8	2.2	0.	0.	692.8

COLL. STEADY VS COLLECTIVE PEAKS BY CYCLIC STEADY 60											
LESS	LESS	10	20	30	40	50	60	70	80	90	SUM
-40											
-30											
-20					1	1					2
-10											
10											
20											
30											
40											
SUM					1	2					3
TIME	0.	0.	0.	1.3	37.8	37.0	8.5	0.	0.	0.	84.5

TABLE XVI - Continued

COLL. STEADY VS COLLECTIVE PEAKS BY CYCLIC STEADY 70											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30					1						1
-20				1	2	4					7
-10											
10					1						1
20											
30											
40											
SUM				1	4	4					9
TIME	0.	0.	0.	1.4	23.9	41.9	14.1	0.	0.	0.	81.4

COLL. STEADY VS COLLECTIVE PEAKS BY CYCLIC STEADY 80											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20						1					1
-10											
10						4					4
20											
30											
40											
SUM						5					5
TIME	0.	0.	0.	0.	11.3	48.3	10.2	0.	0.	0.	69.8

COLL. STEADY VS COLLECTIVE PEAKS BY CYCLIC STEADY 90											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20						1					1
-10											
10											
20											
30											
40											
SUM						1					1
TIME	0.	0.	0.	0.	1.2	14.4	1.1	0.	0.	0.	16.7

TABLE XVII. COLLECTIVE PEAKS FOR COLLECTIVE STEADY VERSUS COLLECTIVE DEVIATION BY ALTITUDE DURING STEADY-STATE MISSION SEGMENT

COLL. STEADY VS COLLECTIVE PEAKS BY ALTITUDE LESS											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20							1				1
-10											
10						1					1
20											
30											
40											
SUM						1	1				2
TIME	0.	0.	0.	0.	1.9	5.0	2.8	0.	0.	0.	9.8

COLL. STEADY VS COLLECTIVE PEAKS BY ALTITUDE 1000											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20				1	4	1	1				7
-10											
10						1					1
20											
30											
40											
SUM				1	4	2	1				8
TIME	0.	0.	0.	2.3	36.0	66.1	65.1	2.4	0.	0.	171.9

COLL. STEADY VS COLLECTIVE PEAKS BY ALTITUDE 2000											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30					1	2					3
-20					3	21	17	2			43
-10											
10					1	6	3				10
20											
30											
40											
SUM					5	29	20	2			56
TIME	0.	0.	0.	1.7	233.5	1050.3	951.5	205.0	5.7	0.	2447.7

TABLE XVII - Continued

COLL. STEADY VS COLLECTIVE PEAKS BY ALTITUDE 4000											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20						6	9				15
-10											
10											
20											
30											
40											
SUM						6	9				15
TIME	0.	0.	0.	1.1	36.1	227.8	315.0	50.5	0.	0.	630.6

**TABLE XVIII. COLLECTIVE PEAKS FOR COLLECTIVE STEADY VERSUS COLLECTIVE DEVIATION BY AIRSPEED DURING STEADY-STATE MISSION SEGMENT**

COLL. STEADY VS COLLECTIVE PEAKS BY VELOCITY LESS											
LESS	LESS	10	20	30	40	50	60	70	80	90	SUM
-40											
-30					1	1					2
-20				1	4	5	1				11
-10											
10					1	4	2				7
20											
30											
40											
SUM				1	6	10	3				20
TIME	0.	0.	0.	2.4	57.1	118.0	49.4	7.3	0.	0.	234.2

COLL. STEADY VS COLLECTIVE PEAKS BY VELOCITY 40											
LESS	LESS	10	20	30	40	50	60	70	80	90	SUM
-40											
-30											
-20						1					1
-10											
10											
20											
30											
40											
SUM						1					1
TIME	0.	0.	0.	0.	5.4	10.5	0.5	0.	0.	0.	16.4

COLL. STEADY VS COLLECTIVE PEAKS BY VELOCITY 60											
LESS	LESS	10	20	30	40	50	60	70	80	90	SUM
-40											
-30											
-20						1					1
-10											
10											
20											
30											
40											
SUM						1					1
TIME	0.	0.	0.	0.1	26.5	28.9	2.5	0.	0.	0.	58.0



TABLE XVIII - Continued

COLL. STEADY VS COLLECTIVE PEAKS BY VELOCITY 70											
LESS	LESS	10	20	30	40	50	60	70	80	90	SUM
=40											
=30											
=20						2					2
=10											
10											
20											
30											
40											
SUM						2					2
TIME	0.	0.	0.	0.4	24.1	35.8	6.5	0.3	0.	0.	67.1

COLL. STEADY VS COLLECTIVE PEAKS BY VELOCITY 75											
LESS	LESS	10	20	30	40	50	60	70	80	90	SUM
=40											
=30											
=20					1	2					3
=10											
10											
20											
30											
40											
SUM					1	2					3
TIME	0.	0.	0.	1.2	40.3	67.3	23.2	0.9	0.	0.	132.9

COLL. STEADY VS COLLECTIVE PEAKS BY VELOCITY 80											
LESS	LESS	10	20	30	40	50	60	70	80	90	SUM
=40											
=30											
=20						5	2				7
=10											
10											
20											
30											
40											
SUM						5	2				7
TIME	0.	0.	0.	0.1	51.2	125.7	40.6	3.6	0.	0.	221.2

TABLE XVIII - Continued

COLL. STEADY VS COLLECTIVE PEAKS BY VELOCITY 85											
LESS	10	20	30	40	50	60	70	80	90	SUM	
-40											
-30											
-20											
-10				1	2	1					4
10											
20											
30											
40											
SUM				1	2	1					4
TIME	0.	0.	0.	0.9	46.5	170.1	106.2	13.3	0.	0.	337.0

COLL. STEADY VS COLLECTIVE PEAKS BY VELOCITY 90											
LESS	10	20	30	40	50	60	70	80	90	SUM	
-40											
-30											
-20											
-10					2	6					8
10					1						1
20											
30											
40											
SUM					3	6					9
TIME	0.	0.	0.	0.	27.7	228.7	209.1	34.2	0.	0.	499.7

COLL. STEADY VS COLLECTIVE PEAKS BY VELOCITY 95											
LESS	10	20	30	40	50	60	70	80	90	SUM	
-40											
-30											
-20											
-10				1	3	7	1				12
10											
20											
30											
40											
SUM				1	4	7	1				13
TIME	0.	0.	0.	0.	22.4	241.6	349.9	51.9	0.1	0.	665.9

TABLE XVIII - Continued

COLL. STEADY VS COLLECTIVE PEAKS BY VELOCITY 100											
LESS	LESS	10	20	30	40	50	60	70	80	90	SUM
-40											
-30											
-20											
-10						5	9				
10											14
20											
30											
40											
SUM						5	9				
TIME	0.	0.	0.	0.	6.0	147.6	297.0	64.8	2.1	0.	517.5

COLL. STEADY VS COLLECTIVE PEAKS BY VELOCITY 105											
LESS	LESS	10	20	30	40	50	60	70	80	90	SUM
-40											
-30											
-20											
-10							1	1			
10											2
20						3					
30											3
40											
SUM						3	1	1			
TIME	0.	0.	0.	0.	0.4	104.6	159.7	51.9	2.5	0.	319.0

COLL. STEADY VS COLLECTIVE PEAKS BY VELOCITY 110											
LESS	LESS	10	20	30	40	50	60	70	80	90	SUM
-40											
-30											
-20											
-10							1				
10											1
20											
30											
40											
SUM							1				
TIME	0.	0.	0.	0.	0.	54.8	54.3	26.6	1.0	0.	136.8

TABLE XVIII - Continued

COLL. STEADY VS COLLECTIVE PEAKS BY VELOCITY 115											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20											
-10											
10							1				1
20											
30											
40											
SUM							1				1
TIME	0.	0.	0.	0.	0.	13.9	28.2	1.8	0.	0.	43.9

TABLE XIX. COLLECTIVE PEAKS FOR COLLECTIVE STEADY VERSUS COLLECTIVE DEVIATION BY ROTOR RPM DURING STEADY-STATE MISSION SEGMENT

COLL. STEADY VS COLLECTIVE PEAKS BY RPM 460											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30						1					1
-20						1	1				2
-10											
10							1				1
20											
30											
40											
SUM						2	2				4
TIME	0.	0.	0.	0.3	53.0	114.5	101.7	30.6	0.6	0.	300.6

COLL. STEADY VS COLLECTIVE PEAKS BY RPM 475											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20					1	5	2	2			10
-10											
10						3	2				5
20											
30											
40											
SUM					1	8	4	2			15
TIME	0.	0.	0.	0.2	84.0	405.1	450.0	103.0	4.6	0.	1046.9

COLL. STEADY VS COLLECTIVE PEAKS BY RPM 480											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30					1	1					2
-20					2	11	11				24
-10											
10					1	3					4
20											
30											
40											
SUM					4	15	11				30
TIME	0.	0.	0.	1.9	90.9	578.6	623.6	90.1	0.4	0.	1385.5

TABLE XIX - Continued

COLL. STEADY VS COLLECTIVE PEAKS BY RPM 485											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20					2	10	12				24
-10											
10						2					2
20											
30											
40											
SUM					2	12	12				26
TIME	0.	0.	0.	1.7	1.7	228.2	151.8	28.8	0.1	0.	472.3

COLL. STEADY VS COLLECTIVE PEAKS BY RPM 490											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30											
-20				1	2	1	2				6
-10											
10											
20											
30											
40											
SUM				1	2	1	2				6
TIME	0.	0.	0.	1.0	18.0	22.9	7.5	5.6	0.	0.	54.9

COLL. STEADY VS COLLECTIVE PEAKS BY RPM SUM											
	LESS	10	20	30	40	50	60	70	80	90	SUM
LESS											
-40											
-30					1	2					3
-20				1	7	28	28	2			66
-10											
10					1	8	3				12
20											
30											
40											
SUM				1	9	38	31	2			81
TIME	0.	0.	0.	5.1	307.6	1349.3	1334.5	258.0	5.7	0.	3260.1

TABLE XX. COLLECTIVE PEAKS FOR AIRSPEED ACCELERATION  
VERSUS COLLECTIVE DEVIATION BY MISSION SEGMENT

ACCELERATION VS COLLECTIVE PEAKS BY MISS. SEG. ASCENT

LESS	LESS	-15.0	-12.0	-9.0	-6.0	-3.0	3.0	6.0	9.0	12.0	15.0	SUM
						1						1
-40					3	2						5
-30					2	11						13
-20					2	86	1					89
-10												
10				1	5	216	10	3				235
20					1	8						9
30						1						1
40												
SUM				1	13	325	11	3				353

ACCELERATION VS COLLECTIVE PEAKS BY MISS. SEG. MANUVR

LESS	LESS	-15.0	-12.0	-9.0	-6.0	-3.0	3.0	6.0	9.0	12.0	15.0	SUM
					4	25		1				30
-40				11	37	143	2					193
-30				15	97	1098	4					1214
-20			2	16	143	4323	17	1				4502
-10												
10			1	2	19	2965	97	5				3089
20					1	87		1				89
30						3						3
40												
SUM			3	44	301	8644	120	8				9120

ACCELERATION VS COLLECTIVE PEAKS BY MISS. SEG. DESCNT

LESS	LESS	-15.0	-12.0	-9.0	-6.0	-3.0	3.0	6.0	9.0	12.0	15.0	SUM
				10	26	49						85
-40				5	65	105						175
-30				3	54	168						225
-20					9	169	1					179
-10												
10						142						142
20					1	9						10
30						1						1
40												
SUM				18	155	643	1					817

TABLE XXI. COLLECTIVE PEAKS FOR ROTOR RPM VERSUS COLLECTIVE DEVIATION BY MISSION SEGMENT

RPM VS COLLECTIVE PEAKS BY MISSION SEGMENT ASCENT								
	LESS	440	460	475	480	485	490	SUM
LESS			1					1
-40					1	1	3	5
-30				1	4	6	2	13
-20			8	12	25	34	10	89
-10								
10		1	18	70	102	39	5	235
20	1	1	4	2			1	9
30							1	1
40								
SUM	1	2	31	85	132	80	22	353
TIME	0.3	1.7	81.5	428.3	674.1	304.1	60.4	1550.4

RPM VS COLLECTIVE PEAKS BY MISSION SEGMENT MANUVR								
	LESS	440	460	475	480	485	490	SUM
LESS		2	4	1	7	11	5	30
-40		2	5	13	65	74	34	193
-30			21	156	539	413	85	1214
-20	1	4	107	734	2041	1320	295	4502
-10								
10		10	310	1140	1187	389	53	3089
20	5	7	19	21	29	8		89
30	1		1			1		3
40								
SUM	7	25	467	2065	3868	2216	472	9120
TIME	1.1	6.5	329.4	1691.4	3032.1	1345.6	223.0	6629.1

RPM VS COLLECTIVE PEAKS BY MISSION SEGMENT DESCNT								
	LESS	440	460	475	480	485	490	SUM
LESS	1	9	10	17	20	19	9	85
-40	1		6	18	70	55	25	175
-30			16	38	87	64	20	225
-20			8	26	77	53	15	179
-10								
10			9	38	68	23	4	142
20	1		3	4		2		10
30	1							1
40								
SUM	4	9	52	141	222	216	73	817
TIME	2.9	7.5	125.4	442.1	613.6	294.6	57.3	1543.5



TABLE XXI - Continued

RPM VS COLLECTIVE PFAKS BY MISSION SEGMENT STEADY								
	LESS	440	460	475	480	485	490	SUM
LESS								
-40								
-30			1		2			3
-20			2	10	24	24	6	66
-10								
10			1	5	4	2		12
20								
30								
40								
SUM			4	15	30	26	6	81
TIME	0.	0.	300.6	1046.9	1385.5	472.3	54.9	3260.1

TABLE XXII. COLLECTIVE PEAKS FOR AIRSPEED VERSUS COLLECTIVE DEVIATION BY MISSION SEGMENT

VELOCITY VS COLLECTIVE PEAKS BY MISSION SEGMENT ASCENT

	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS	1															1
-40	1	2	1	1												5
-30	2	4	4	1			1	1								13
-20	32	10	8	5	7	8	7	5	3							89
-10																
10	65	16	17	8	14	18	22	29	17	16	10	2		1		235
20	1						1	1	2	2		1	1			9
30						1										1
40																
SUM	106	32	30	15	21	27	31	36	22	18	10	3	1	1		353
TIME	157.9	158.1	172.3	142.5	173.0	194.9	180.8	141.9	112.7	69.0	31.1	12.9	2.9	0.5	0.	1550.4

VELOCITY VS COLLECTIVE PEAKS BY MISSION SEGMENT MANUVR

	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS	4	9	5	4	2	1	1	1								30
-40	20	77	49	15	9	3	8	2	6	3		1				193
-30	339	576	191	38	40	22	21	10	7	9	1					1214
-20	2950	1311	275	110	75	53	48	38	17	12	6	5			1	4502
-10																
10	2450	278	92	27	32	22	39	29	37	47	21	9	3	3		3089
20	68	8	1	1	1	1	1	2		1	2	2	1			89
30	2									1						3
40																
SUM	5433	2259	573	197	159	102	118	82	67	74	30	17	5	3	1	9120
TIME	3325.3	1192.3	497.4	224.7	231.1	235.2	231.8	229.3	206.1	170.8	85.7	38.4	14.5	4.4	2.2	6629.1

VELOCITY VS COLLECTIVE PEAKS BY MISSION SEGMENT DESCNT

	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS	1	24	27	10	4	9	7	3								85
-40	13	65	44	22	9	10	3	6	3							175
-30	27	77	50	13	16	13	8	6	9	4	1	1				225
-20	40	14	13	8	14	11	21	17	19	12	5	2	3			179
-10																
10	26	2	1	1	1	4	3	10	13	25	31	17	5	2	1	142
20		2						1	1	2	1	3				10
30	1															1
40																
SUM	108	184	135	54	44	47	42	43	45	43	38	23	8	2	1	817
TIME	169.6	92.9	84.6	64.2	64.5	105.6	136.9	165.9	176.9	179.2	153.1	82.3	46.7	13.0	6.2	1543.5

VELOCITY VS COLLECTIVE PEAKS BY MISSION SEGMENT STEADY

	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS																
-40									1							3
-30	2								12	14	2	1				66
-20	11	1	1	2	3	7	4	8								
-10																
10	7							1			3		1			12
20																
30																
40																
SUM	10	1	1	2	3	7	4	9	13	14	5	1	1			81
TIME	234.2	16.4	58.0	67.1	132.9	221.2	337.0	499.7	665.9	517.5	319.0	136.8	43.9	9.2	1.4	3260.1

TABLE XXIII. GUST  $n_z$  PEAKS FOR  $\mu$  VERSUS  $n_z$  BY MISSION SEGMENT, ALTITUDE, AND  $C_T/\sigma$

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT, ALTITUDE 1000. CT/S LESS										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.3										
1.2						2				2
0.8						1				1
0.7										
0.6						3				3
SUM										
TIME	0.	4.4	3.9	5.3	10.7	17.7	8.7	0.	0.	50.6

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT, ALTITUDE 1000. CT/S 0.08										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
0.8										
0.7							1			1
0.6										
SUM							1			1
TIME	0.	10.7	8.7	15.6	26.5	32.2	9.6	0.3	0.	103.6

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT, ALTITUDE 1000										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.3										
1.2						2				2
0.8										
0.7							1	1		2
0.6										
SUM						3	1			4
TIME	0.	15.1	12.6	20.9	37.2	49.8	18.3	0.3	0.	154.2

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT, ALTITUDE 2000. CT/S LESS										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.3										
1.2				1	1	9	4			15
0.8										
0.7					1	8	2			11
0.6							1			1
0.5										
SUM				1	2	17	7			27
TIME	0.	25.9	14.1	37.8	88.6	114.6	29.5	0.6	0.	311.1

TABLE XXIII - Continued

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT, ALTITUDE 2000. CT/S 0.08										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.4										
1.3							1			1
1.2					2	5				7
0.8										
0.7					4	6	3			13
0.6										
SUM					6	11	4			21
TIME	0.	50.9	34.6	78.3	285.2	380.3	73.2	0.	0.	902.4

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT, ALTITUDE 2000										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.4										
1.3							1			1
1.2				1	3	14	4			22
0.8										
0.7					5	14	5			24
0.6							1			1
0.5										
SUM				1	8	28	11			48
TIME	0.	77.0	48.8	116.0	373.8	494.9	102.7	0.6	0.	1213.7

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT, ALTITUDE 4000. CT/S LESS										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.3										
1.2						2				2
0.8										
0.7					1					1
0.6						1				1
0.5										
SUM					1	3				4
TIME	0.	0.1	0.1	0.2	6.8	20.7	3.9	0.	0.	31.7

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT, ALTITUDE 4000. CT/S 0.08										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.3										
1.2				1		1				2
0.8										
0.7							1			1
0.6										
SUM				1		1	1			3
TIME	0.	0.5	0.3	7.6	43.6	70.2	19.7	0.	0.	162.0

TABLE XXIII - Continued

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT, ALTITUDE 4000										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.3										
1.2				1		3				4
0.8										
0.7					1		1			2
0.6						1				1
0.5										
SUM				1	1	4	1			7
TIME	0.	0.6	0.4	7.8	50.5	90.8	23.7	0.	0.	173.7

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.4										
1.3							1			1
1.2				2	3	19	4			28
0.8										
0.7					6	15	7			28
0.6						1	1			2
0.5										
SUM				2	9	35	13			59
TIME	0.	92.9	63.7	145.0	462.1	638.9	146.9	0.9	0.	1550.4

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR, ALTITUDE LESS, CT/S 0.00										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.3										
1.2				1						1
0.8										
SUM				1						1
TIME	0.	0.1	0.2	3.3	1.5	0.1	0.	0.	0.	5.1

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR, ALTITUDE LESS										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.3										
1.2				1						1
0.8										
SUM				1						1
TIME	0.	0.1	6.5	6.7	4.1	3.4	2.7	0.	0.	23.2

TABLE XXIII - Continued

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR, ALTITUDE 1000. CT/S LESS										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.3										
1.2				4	8	3	1			16
0.8										
0.7						1				1
0.6										
SUM				4	8	4	1			17
TIME	0.	210.1	361.4	155.1	86.0	43.4	9.6	0.2	0.	865.7

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR, ALTITUDE 1000. CT/S 0.08										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.4										
1.3					1	2				3
1.2				6	8	12	1	1		28
0.8										
0.7					2	7	1			10
0.6										
SUM				6	11	21	2	1		41
TIME	0.	105.3	274.1	121.6	79.3	44.6	10.9	1.0	0.	636.8

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR, ALTITUDE 1000										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.4										
1.3					1	2				3
1.2				10	16	15	2	1		44
0.8										
0.7					2	8	1			11
0.6										
SUM				10	19	25	3	1		58
TIME	0.	315.4	635.4	276.8	165.3	88.0	20.5	1.2	0.	1502.6

GUST NZ PFAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR, ALTITUDE 2000. CT/S LESS										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.4										
1.3				2	1					3
1.2				7	17	14	4	1		43
0.8										
0.7					1	6	1			8
0.6						1				1
0.5										
SUM				9	19	21	5	1		55
TIME	0.	329.0	562.8	380.3	271.0	248.0	86.7	5.7	0.	1883.4

TABLE XXIII - Continued

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR, ALTITUDE 2000. CT/S 0.08										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.4										
1.3				1	1		1			3
1.2				2	1	8	5			16
0.8										
0.7				1		7	7			15
0.6										
SUM				4	2	15	13			34
TIME	0.	507.4	915.9	528.8	421.7	484.0	212.8	6.8	0.	3077.4

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR, ALTITUDE 2000										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.4										
1.3				3	2		1			6
1.2				9	18	22	9	1		59
0.8										
0.7				1	1	13	8			23
0.6						1				1
0.5										
SUM				13	21	36	18	1		89
TIME	0.	836.8	1479.1	909.5	693.1	732.1	299.6	12.5	0.	4962.7

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR, ALTITUDE 4000. CT/S LESS										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
0.8										
0.7						1				1
0.6										
SUM						1				1
TIME	0.	0.	0.	0.	2.8	5.5	3.0	0.	0.	11.3

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR, ALTITUDE 4000. CT/S 0.08										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
0.8										
0.7							1			1
0.6										
SUM							1			1
TIME	0.	1.7	5.0	4.2	9.8	76.1	32.1	0.8	0.	129.7

TABLE XXIII - Continued

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR, ALTITUDE 4000										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
0.8										
0.7						1	1			2
0.6										
SUM						1	1			2
TIME	0.	1.7	5.0	4.2	12.6	81.6	35.1	0.8	0.	141.0

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.4										
1.3				3	3	2	1			9
1.2				20	34	37	11	2		104
0.8										
0.7				1	3	22	10			36
0.6						1				1
0.5										
SUM				24	40	62	22	2		150
TIME	0.	1154.0	2126.1	1197.2	875.1	905.1	357.5	14.4	0.	6629.5

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT, ALTITUDE LESS CT/S LESS										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.3										
1.2						1	1			2
0.8										
SUM						1	1			2
TIME	0.	0.3	0.8	0.7	0.9	1.7	3.4	0.	0.	7.8

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT, ALTITUDE LESS										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.3										
1.2							1	1		2
0.8										
SUM							1	1		2
TIME	0.	0.8	1.3	1.0	1.1	1.9	3.4	0.	0.	9.6



TABLE XXIII - Continued

GUST NZ PEAKS FOR		MU	VS	NZ	BY MISSION SEGMENT DESCNT.					ALTITUDE	1000. CT/S	LESS
LESS		0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM		
1.4												
1.3				1						1		
1.2				2	2	3				7		
0.8												
0.7					1					1		
0.6						1				1		
0.5												
SUM				3	3	4				10		
TIME	0.	12.8	14.1	13.9	20.4	22.2	34.5	1.3	0.	119.2		

GUST NZ PEAKS FOR		MU	VS	NZ	BY MISSION SEGMENT DESCNT.					ALTITUDE	1000. CT/S	0.08
LESS		0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM		
1.3												
1.2					1	2	1			4		
0.8												
0.7								1		1		
0.6												
SUM					1	2	1	1		5		
TIME	0.	10.0	8.8	6.2	10.9	14.1	7.7	3.5	0.	61.2		

GUST NZ PEAKS FOR		MU	VS	NZ	BY MISSION SEGMENT DESCNT.					ALTITUDE	1000
LESS		0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM	
1.4											
1.3				1						1	
1.2				2	3	5	1			11	
0.8											
0.7					1			1		2	
0.6						1				1	
0.5											
SUM				3	4	6	1	1		15	
TIME	0.	22.8	22.8	20.0	31.4	36.3	42.3	4.8	0.	180.4	

GUST NZ PEAKS FOR		MU	VS	NZ	BY MISSION SEGMENT DESCNT.					ALTITUDE	2000. CT/S	LESS
LESS		0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM		
1.4												
1.3						1		1		2		
1.2				5	12	23	8	1		49		
0.8												
0.7				2	5	9	8	3		27		
0.6					1	1		1		3		
0.5												
SUM				7	18	34	16	6		81		
TIME	0.	32.1	26.6	42.3	93.5	180.5	151.4	11.0	0.	537.4		

TABLE XXIII - Continued

GUST NZ PEAKS FOR		MU	VS	NZ	BY MISSION SEGMENT DESCNT.					ALTITUDE	2000. CT/S	0.08
LESS		0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM		
1.4												
1.3						2				2		
1.2				1	1	12	3			17		
0.8												
0.7						2	5			7		
0.6												
SUM				1	1	16	8			26		
TIME	0.	33.2	25.4	25.7	70.2	266.9	234.8	11.1	0.	667.4		

GUST NZ PEAKS FOR		MU	VS	NZ	BY MISSION SEGMENT DESCNT.					ALTITUDE	2000
LESS		0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM	
1.4											
1.3						3		1		4	
1.2				6	13	35	11	1		66	
0.8											
0.7				2	5	11	13	3		34	
0.6					1	1		1		3	
0.5											
SUM				8	19	50	24	6		107	
TIME	0.	65.9	52.3	68.2	163.7	447.7	386.2	22.1	0.	1206.2	

GUST NZ PEAKS FOR		MU	VS	NZ	BY MISSION SEGMENT DESCNT.					ALTITUDE	4000. CT/S	LESS
LESS		0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM		
1.4												
1.3						1				1		
1.2						2				2		
0.8												
0.7						1	1			2		
0.6												
SUM						4	1			5		
TIME	0.	0.	0.	0.	0.5	20.0	25.9	0.	0.	46.3		

GUST NZ PEAKS FOR		MU	VS	NZ	BY MISSION SEGMENT DESCNT.					ALTITUDE	4000. CT/S	0.08
LESS		0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM		
1.3												
1.2							2			2		
0.8												
0.7							1			1		
0.6												
SUM							3			3		
TIME	0.	0.	0.	0.2	2.4	43.2	52.9	2.1	0.	100.8		

TABLE XXIII - Continued

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT, ALTITUDE 4000										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.4										
1.3						1				1
1.2						2	2			4
0.8										
0.7						1	2			3
0.6										
SUM						4	4			8
TIME	0.	0.	0.	0.2	2.9	63.1	78.9	2.1	0.	147.2

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.4										
1.3				1		4		1		6
1.2				8	16	43	15	1		83
0.8										
0.7				2	6	12	15	4		39
0.6					1	2		1		4
0.5										
SUM				11	23	61	30	7		132
TIME	0.	89.5	76.5	89.5	199.1	549.0	510.9	29.0	0.	1543.5

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY, ALTITUDE 1000. CT/S LESS										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.3										
1.2						2				2
0.8										
0.7							2			2
0.6										
SUM						2	2			4
TIME	0.	21.0	3.3	0.	2.5	20.8	50.1	0.	0.	97.7

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY, ALTITUDE 1000. CT/S 0.08										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.3										
1.2						1				1
0.8										
SUM						1				1
TIME	0.	13.7	3.5	0.	1.1	26.4	29.6	0.	0.	74.3

TABLE XXIII - Continued

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY, ALTITUDE 1000										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.3										
1.2						3				3
0.8										
0.7							2			2
0.6										
SUM						3	2			5
TIME	0.	34.6	6.8	0.	3.6	47.2	79.7	0.	0.	171.9

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY, ALTITUDE 2000, CT/5 LESS										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.4										
1.3							1			1
1.2						11	7	1		19
0.8										
0.7				2	10	4				16
0.6					1					1
0.5										
SUM				2	22	12	1			37
TIME	0.	67.5	7.3	0.7	31.1	243.5	239.2	4.6	0.	593.9

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY, ALTITUDE 2000, CT/5 0.08										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.3										
1.2						8	16			24
0.8										
0.7				1	9	14	1			25
0.6										
SUM				1	17	30	1			49
TIME	0.	96.5	17.3	10.9	130.8	869.9	712.7	15.8	0.	1853.9

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY, ALTITUDE 2000										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.4										
1.3							1			1
1.2						19	23	1		43
0.8										
0.7					3	19	18	1		41
0.6						1				1
0.5										
SUM					3	39	42	2		86
TIME	0.	164.0	24.6	11.6	161.9	1113.4	951.9	20.4	0.	2447.8

TABLE XXIII - Continued

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY, ALTITUDE 4000. CT/S LESS										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.4										
1.3						1				1
1.2						1	2			3
0.8										
0.7						2				2
0.6										
SUM						4	2			6
TIME	0.	0.4	0.	0.	0.7	54.6	60.1	0.2	0.	116.0

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY, ALTITUDE 4000. CT/S 0.08										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.3										
1.2							3			3
0.8										
0.7							4			4
0.6										
SUM							7			7
TIME	0.	1.2	0.2	2.9	42.6	318.4	149.1	0.3	0.	514.6

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY, ALTITUDE 4000										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.4										
1.3							1			1
1.2							1	5		6
0.8										
0.7							2	4		6
0.6										
SUM							4	9		13
TIME	0.	1.5	0.2	2.9	43.3	373.0	209.2	0.5	0.	630.6

GUST NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.4										
1.3							1	1		2
1.2							23	28	1	52
0.8										
0.7					3	21	24	1		49
0.6						1				1
0.5										
SUM					3	46	53	2		104
TIME	0.	201.7	31.6	14.4	209.9	1540.8	1240.7	20.9	0.	3260.1

TABLE XXIII - Continued

GUST NZ PEAKS FOR MU VS NZ										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.4										
1.3				4	3	7	3	1		18
1.2				30	93	122	58	4		267
0.8										
0.7				3	18	70	56	5		152
0.6					1	5	1	1		8
0.5										
SUM				37	75	204	118	11		445
TIME	0.	1538.2	2297.8	1446.0	1746.2	3633.8	2256.1	65.2	0.	12983.5

TABLE XXIV. GUST  $n_z$  PEAKS FOR AIRSPEED VERSUS  $n_z$  BY WEIGHT, ALTITUDE, AND MISSION SEGMENT

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS, ALTITUDE 1000. MISSION SEGMENT ASCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2						1										1
0.8																
0.7							1									1
0.6																
0.5						1	1									2
SUM						1	1									2
TIME	1.3	0.8	0.2	0.7	0.4	1.1	0.8	0.	0.	0.	0.	0.	0.	0.	0.	9.3

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS, ALTITUDE 1000. MISSION SEGMENT DESCNT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2		1														1
0.8																
0.7				1												1
0.6							1									1
0.5																
SUM		1	1				1									3
TIME	6.0	2.6	1.1	1.0	0.7	1.0	1.2	0.6	1.0	1.2	2.9	2.8	0.9	0.2	0.	23.1

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS, ALTITUDE 1000. MISSION SEGMENT STEADY																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2								2								2
0.8																
SUM								2								2
TIME	1.9	0.	0.	0.	0.	0.	0.	0.9	1.0	0.1	0.	0.	0.	0.	0.	3.9

TABLE XXIV - Continued

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS. ALTITUDE 1000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2		1				1		2								4
0.8																
0.7			1				1									2
0.6							1									1
0.5																
SUM		1	1			1	2	2								7
TIME	10.0	3.8	1.4	2.0	1.2	2.5	2.2	1.8	2.4	1.6	3.2	2.9	0.9	0.2	0.	38.2

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS. ALTITUDE 2000. MISSION SEGMENT ASCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2						1	1	1	1				1			5
0.8																
0.7			1				1			1						3
0.6																
0.5																
SUM			1			1	2	1	1	1			1			8
TIME	11.5	14.2	13.8	3.0	4.6	12.3	10.0	8.9	6.6	2.9	1.4	3.6	1.3	0.	0.	94.2

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS. ALTITUDE 2000. MISSION SEGMENT MANUVR																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2			1		2	1	1		1				1			7
0.8																
0.7											1					1
0.6																
0.5																
SUM			1		2	1	1		1		1		1			8
TIME	1.2	3.1	4.9	5.2	3.6	4.7	5.2	3.9	5.0	4.7	2.5	4.0	2.6	0.4	0.4	51.4

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS. ALTITUDE 2000. MISSION SEGMENT DESCNT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																
1.3							1					1				2
1.2		2	3	5	1	2	7	4	3		1		2			30
0.8																
0.7		1	1				2	1	2	4	1	1	2			15
0.6				1			1						1			3
0.5																
SUM		3	4	6	1	2	11	5	5	4	2	2	5			50
TIME	19.2	15.2	10.8	8.8	4.4	8.7	13.3	16.4	11.4	13.2	12.1	10.1	13.3	1.9	1.1	154.0

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS. ALTITUDE 2000. MISSION SEGMENT STEADY																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2							1	2	5	1			1			10
0.8																
0.7						1	1	1	1	1						5
0.6																
0.5																
SUM						1	2	3	6	2			1			15
TIME	3.0	0.1	0.	2.0	3.2	6.0	11.7	13.2	17.0	11.1	20.0	30.2	17.5	2.4	0.	137.5

TABLE XXIV - Continued

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS, ALTITUDE 2000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4							1					1				2
1.3							10	7	10	1	1		5			52
1.2		2	4	5	3	4										
0.8																
0.7		1	2			1	4	2	3	6	2	1	2			24
0.6				1			1						1			3
0.5																
SUM		3	6	6	3	5	16	9	13	7	3	2	8			81
TIME	28.9	32.7	29.5	19.1	19.7	31.7	40.2	42.4	39.9	31.9	35.9	47.8	34.8	9.0	1.5	437.0

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS, ALTITUDE 4000, MISSION SEGMENT ASCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2							1									1
0.8																
0.7					1											1
0.6								1								1
0.5																
SUM					1		1	1								3
TIME	0.	0.	0.5	0.4	1.8	1.4	1.6	2.2	1.5	0.2	0.4	0.	0.	0.	0.	10.0

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS, ALTITUDE 4000, MISSION SEGMENT DESCNT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4									1							1
1.3								2								2
1.2																
0.8																
0.7								1	1							2
0.6																
0.5																
SUM								3	2							5
TIME	0.	0.	0.	0.	0.1	0.4	0.7	5.3	6.1	0.6	0.	0.	0.	0.	0.	13.2

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS, ALTITUDE 4000, MISSION SEGMENT STEADY																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																
1.3							1									1
1.2																
SUM							1									1
TIME	0.	0.	0.	0.	0.	0.3	1.1	9.2	6.3	4.2	2.1	2.2	1.5	0.2	0.	23.1

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS, ALTITUDE 4000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																
1.3							1		1							2
1.2							1	2								3
0.8																
0.7					1			1	1							3
0.6								1								1
0.5																
SUM					1		2	4	2							9
TIME	0.	0.1	0.6	0.4	2.0	2.3	3.5	13.1	13.9	9.0	2.5	2.2	1.5	0.2	0.	47.4



TABLE XXIV - Continued

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																
1.3							2		1			1				4
1.2		3	4	5	3	5	11	11	10	1	1		5			59
0.8																
0.7		1	3		1	1	3	3	4	6	2	1	2			29
0.6				1			2	1					1			5
0.5																
SUM		4	7	6	4	6	20	15	15	7	3	2	8			97
TIME	38.9	36.6	31.4	21.5	18.9	36.6	45.9	57.3	56.2	38.5	41.7	32.9	37.2	5.4	1.5	528.5

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2000. ALTITUDE 1000. MISSION SEGMENT MANUVR																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2		1				1					1					3
0.8																
SUM		1				1					1					3
TIME	162.8	30.4	9.3	4.1	3.5	4.9	4.6	2.6	0.3	0.3	0.3	0.	0.	0.	0.	223.2

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2000. ALTITUDE 1000. MISSION SEGMENT DESCNT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2																
0.8						1			1							2
SUM						1			1							2
TIME	8.3	3.0	3.1	2.4	2.2	1.3	1.5	1.9	4.9	3.5	2.7	0.7	0.4	0.6	0.2	38.5

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2000. ALTITUDE 1000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2		1														3
0.8						2			1		1					5
SUM		1				2			1		1					5
TIME	184.7	36.0	13.3	7.0	7.7	7.2	7.5	6.2	11.6	6.6	5.6	0.8	0.4	0.6	0.2	295.5

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2000. ALTITUDE 2000. MISSION SEGMENT ASCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2		1		1				3	2			1				10
0.8																
0.7						1		3				1				7
0.6										1						1
0.5																
SUM		1		1		1		10	2	1		2				18
TIME	21.2	18.1	14.6	13.5	15.9	13.6	11.1	10.7	8.6	8.0	3.4	1.6	0.5	0.5	0.	141.9

TABLE XXIV - Continued

		GUST NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2000. ALTITUDE 2000. MISSION SEGMENT MANUVR															
		LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																	3
1.3			2			1											3
1.2			5	1	3	1	2	1	2		1		1				17
0.8									1								1
0.7										1							1
0.6																	
0.5																	
SUM			7	1	3	2	2	1	3	1	1		1				22
TIME		222.4	87.9	43.0	25.2	27.3	27.3	29.7	25.5	19.3	13.1	5.7	1.8	0.5	0.1	0.	928.7

		GUST NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2000. ALTITUDE 2000. MISSION SEGMENT DESCNT															
		LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																	14
1.2			3	1	1		1	2	1	2	2	1					14
0.8																	8
0.7			1	1	2			2		1	1						8
0.6																	1
SUM			4	2	3		1	4	1	3	3	1					22
TIME		29.1	18.8	22.7	14.6	13.7	14.9	18.2	25.4	23.9	26.8	17.9	7.4	5.1	1.4	0.1	240.0

		GUST NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2000. ALTITUDE 2000. MISSION SEGMENT STEADY															
		LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																	8
1.2										5	2	1					8
0.8																	9
0.7						4			2	1	1	1					9
0.6										1							1
0.5																	
SUM						4			2	7	3	2					18
TIME		39.4	0.4	2.8	5.5	14.9	19.6	21.3	32.8	31.4	31.3	22.7	9.5	0.6	0.	0.	232.1

		GUST NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2000. ALTITUDE 2000. MISSION SEGMENT ASCENT															
		LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																	3
1.3			2			1											3
1.2			9	2	5	1	3	3	8	9	5	2	2				49
0.8																	25
0.7			1	1	2	4	1	2	8	2	2	1	1				25
0.6										2	1						3
0.5																	
SUM			12	3	7	6	4	5	16	13	8	2	3				80
TIME		312.1	125.2	83.1	58.8	71.8	75.4	80.3	94.4	103.2	79.2	49.7	20.4	6.7	2.0	0.1	1162.3

		GUST NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2000. ALTITUDE 4000. MISSION SEGMENT ASCENT															
		LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3									1								1
1.2																	1
0.8											1						1
0.7																	2
0.6																	
SUM									1		1						2
TIME		0.2	0.3	1.8	1.6	1.0	3.1	6.8	5.1	6.2	4.1	0.9	0.	0.	0.	0.	31.0

TABLE XXIV - Continued

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2000, ALTITUDE 4000, MISSION SEGMENT MANUVR																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
0.8									1							1
0.7																
0.6																
SUM									1							1
TIME	0.	0.	0.8	0.4	1.5	0.8	1.5	0.4	0.9	1.7	0.9	0.3	0.	0.	0.	9.0

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2000, ALTITUDE 4000, MISSION SEGMENT STEADY																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3								1					1			2
1.2																
0.8							1	1								2
0.7																
0.6																
SUM								1	2				1			4
TIME	0.3	0.	0.	0.1	2.0	6.4	8.1	15.4	23.7	26.5	18.3	3.2	0.2	0.	0.	105.3

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2000, ALTITUDE 4000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3								2					1			3
1.2																
0.8							1	1	1	1						4
0.7																
0.6																
SUM								1	3	1	1			1		7
TIME	0.7	0.3	2.8	2.2	5.6	11.7	1.7	25.0	35.5	40.5	29.0	6.2	0.8	0.	0.	178.1

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																
1.3		2			1											3
1.2		10	2	5	1	5	3	10	10	5	3	2	1			97
0.8																
0.7		1	1	2	4	1	3	9	3	3	1	1				29
0.6									2	1						3
0.5																
SUM		13	3	7	6	6	6	19	15	9	4	3	1			92
TIME	498.7	163.2	99.5	68.1	85.5	94.8	106.4	126.2	151.6	126.9	85.3	28.4	8.2	2.6	0.3	1645.8

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200, ALTITUDE LESS, MISSION SEGMENT DESCNT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2								1				1				2
0.8																
SUM								1				1				2
TIME	1.3	0.4	0.2	0.3	0.2	0.5	0.3	0.1	0.2	0.6	0.2	1.2	0.2	0.	0.	6.0

TABLE XXIV - Continued

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200. ALTITUDE LESS																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3						1					1					2
1.2																
0.8						1					1					2
SUM						1					1					2
TIME	8.4	4.1	2.1	1.0	1.0	1.4	1.2	1.0	0.9	1.9	0.6	1.3	0.2	0.	0.	25.2

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200. ALTITUDE 1000. MISSION SEGMENT ASCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3						1										1
1.2																
0.8										1						1
0.7																
0.6						1				1						2
SUM						1				1						2
TIME	3.9	4.3	2.1	1.1	3.0	3.4	1.0	2.9	4.2	2.6	2.9	0.1	0.1	0.	0.	31.6

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200. ALTITUDE 1000. MISSION SEGMENT MANUVR																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2		4	5	2	2		1									16
0.8																
0.7							1									1
0.6																
SUM		4	5	2	2		2									17
TIME	532.8	169.4	54.6	35.0	17.9	11.8	6.7	8.3	7.8	6.0	4.1	1.5	0.3	0.	0.	844.1

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200. ALTITUDE 1000. MISSION SEGMENT DESCNT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																1
1.3		1														1
1.2		1		2			1	1				1				6
0.8														1		1
0.7																
0.6							1	1				1		1		6
SUM		2		2			2	2				2		2		17
TIME	21.0	9.2	6.0	3.2	3.2	4.8	3.0	3.2	3.4	9.4	11.9	4.4	0.9	0.9	1.9	82.6

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200. ALTITUDE 1000. MISSION SEGMENT STEADY																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
0.8																
0.7									2							2
0.6																
SUM									2							2
TIME	11.8	0.	0.2	1.0	1.8	4.6	3.5	2.9	11.8	26.3	20.8	4.8	0.7	0.	0.	90.0

TABLE XXIV - Continued

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200. ALTITUDE 1000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																1
1.3		1						1				1				2
1.2		7	5	4	3			2								19
0.8									1	2	1				1	5
0.7																1
0.6								1	2	1				1		2
SUM		8	5	4	3			3	1	2	1			1	1	29
TIME	569.3	183.0	63.0	28.3	25.9	24.5	14.2	17.3	27.3	40.2	39.6	10.9	1.9	0.9	1.9	1048.1

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200. ALTITUDE 2000. MISSION SEGMENT ASCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																1
1.2						1		1								2
0.8																1
0.7			1					2	2							4
0.6																1
SUM			1			1		3	2							7
TIME	37.0	31.5	38.3	29.2	40.5	43.7	37.7	29.4	22.3	17.1	6.1	3.5	0.	0.	0.	336.3

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200. ALTITUDE 2000. MISSION SEGMENT MANUVR																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																1
1.3		1														1
1.2		3	6	2	3	3	2		1	1	2		1			23
0.8																1
0.7		1			1	1	1	3	3	2	1					13
0.6																1
SUM		5	6	2	4	4	3	3	4	3	3		1			38
TIME	1985.6	682.2	227.5	108.3	106.7	97.1	96.5	90.9	97.5	92.1	41.8	16.3	8.3	2.1	1.4	3254.3

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200. ALTITUDE 2000. MISSION SEGMENT DESCNT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																1
1.3								2								2
1.2		1	1		1			5	5	3		2	1	1		20
0.8																1
0.7				1					2	2	2			2		10
0.6																1
SUM		1	1	1	1			7	7	5	2	3	1	3		32
TIME	61.0	26.5	23.6	19.0	23.5	34.8	46.6	64.4	74.6	77.7	68.6	34.1	15.7	5.8	2.3	578.2

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200. ALTITUDE 2000. MISSION SEGMENT STEADY																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4									1							1
1.3									2	3	2	1	3			14
1.2					1	1		1								4
0.8						1	1	1	5	3	1				1	13
0.7																1
0.6																1
SUM					1	2	1	2	8	6	3	1	3	1		28
TIME	119.0	7.7	15.1	16.3	28.8	55.3	104.7	154.6	246.1	238.1	144.4	52.7	12.3	5.1	0.3	1196.3

TABLE XXIV - Continued

GUST NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2200, ALTITUDE 2000																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
1.4																
1.3	1					2		1			1				5	
1.2	4	7	2	5	5	7	7	6	4	6	2	4			59	
0.8																
0.7	1	1	1	1	2	2	8	12	7	3		2	1		41	
0.6																
SUM	6	8	3	6	7	11	15	19	11	9	3	6	1		109	
TIME	98.6	747.9	304.4	172.7	199.5	230.9	285.5	339.2	440.5	425.0	260.9	106.7	36.3	13.0	4.1	5365.1

GUST NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2200, ALTITUDE 4000, MISSION SEGMENT ASCENT																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
1.3																
1.2								1							1	
0.8																
SUM								1							1	
TIME	0.3	2.4	7.1	9.8	10.9	7.7	5.2	10.0	6.9	3.4	2.2	0.	0.	0.	0.	66.1

GUST NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2200, ALTITUDE 4000, MISSION SEGMENT MANUVR																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
0.8																
0.7									1						1	
0.6																
SUM									1						1	
TIME	6.7	3.3	1.6	1.6	2.1	2.4	4.0	16.5	15.1	6.0	1.7	1.8	0.4	0.4	0.	66.4

GUST NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2200, ALTITUDE 4000, MISSION SEGMENT DESCNT																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
1.3																
1.2										1	1				2	
0.8																
0.7										1					1	
0.6																
SUM										2	1				3	
TIME	0.	0.2	0.4	0.5	1.4	3.2	5.3	8.3	14.5	14.3	9.8	6.7	3.7	1.0	0.1	69.4

GUST NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2200, ALTITUDE 4000, MISSION SEGMENT STEADY																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
1.3																
1.2										1	2	1			4	
0.8																
0.7											4				4	
0.6																
SUM										1	6	1			8	
TIME	0.3	3.4	7.0	5.8	17.2	20.8	46.5	84.3	96.9	38.6	22.4	13.1	2.0	0.	0.	398.6

TABLE XXIV - Continued

GUST NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2200. ALTITUDE 4000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2									1		2	3	1			7
0.8										1	1	4				6
0.7																
0.6									1	1	3	7	1			13
SUM																
TIME	7.3	9.5	16.1	17.7	31.6	37.2	61.0	119.1	133.4	62.2	36.1	21.7	6.1	1.4	0.1	560.4

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																
1.3		2					2		1			1				6
1.2		11	12	6	8	6	9	8	7	4	9	6	3			91
0.8																
0.7		1	1	1	1	2	3	8	14	9	4	4	2	2		52
0.6																
SUM		14	13	7	9	8	14	16	22	13	13	11	7	2		149
TIME	2383.6	944.5	385.5	219.6	258.0	296.1	361.8	476.6	602.1	529.4	337.2	140.5	44.5	15.2	6.2	6998.8

GUST NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2400. ALTITUDE LESS, MISSION SEGMENT MANUVR																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2		1														1
0.8																
SUM		1														1
TIME	0.2	2.8	0.1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.1

GUST NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2400. ALTITUDE LESS																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2		1														1
0.8																
SUM		1														1
TIME	2.8	2.8	0.7	0.8	0.4	1.8	2.5	1.3	0.4	0.5	0.3	0.	0.	0.	0.	14.4

GUST NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2400. ALTITUDE 1000. MISSION SEGMENT MANUVR																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																
1.3		1														1
1.2		4	4		3	1	1					1	1			15
0.8																
0.7				1	3							1				5
0.6																
SUM		5	4	1	6	1	1					2	1			21
TIME	263.5	71.2	28.6	11.9	11.7	10.4	9.5	6.8	4.9	1.5	1.1	0.5	0.9	0.3	0.3	423.1

TABLE XXIV - Continued

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400, ALTITUDE 1000, MISSION SEGMENT DESCNT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2				1		1										2
0.8																
SUM				1		1										2
TIME	11.2	4.1	3.0	3.0	2.4	2.4	2.4	3.4	1.7	1.0	0.9	0.2	0.2	0.3	0.	36.4

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400, ALTITUDE 1000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																
1.3		1														1
1.2		4	4	1	3	2	1					1	1			17
0.8																
0.7				1	3											5
0.6												1				
SUM		5	4	2	6	2	1					2	1			23
TIME	307.7	87.2	41.9	23.4	21.2	21.1	26.2	24.3	29.4	15.3	6.0	2.8	2.0	0.6	0.3	609.4

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400, ALTITUDE 2000, MISSION SEGMENT ASCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																
1.3																
1.2			1			2		1				1				4
0.8																
0.7			1	1	1	1		2	1	2						9
0.6																
SUM			2	1	1	3		3	1	2	1					14
TIME	92.4	58.9	70.0	62.7	75.3	85.7	84.8	55.0	38.5	22.2	10.2	1.1	0.1	0.	0.	616.7

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400, ALTITUDE 2000, MISSION SEGMENT MANUVR																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																
1.3				1												1
1.2		1		1		1	2	2	1	1	1	1				11
0.8								1	2	4						7
0.7																
0.6		1		2		1	2	3	3	5	1	1				19
SUM		1		2		1	2	3	3	5	1	1				19
TIME	939.7	131.1	56.9	39.0	49.9	64.7	59.4	53.0	40.4	35.0	22.0	10.2	1.4	0.8	0.	1103.6

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400, ALTITUDE 2000, MISSION SEGMENT DESCNT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2							1	1								2
0.8																
0.7						1										1
0.6																
SUM						1	1	1								3
TIME	17.5	10.1	13.1	10.7	13.8	29.9	34.4	27.7	20.8	22.4	13.8	11.3	5.5	0.8	0.4	232.0



TABLE XXIV - Continued

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400. ALTITUDE 2000. MISSION SEGMENT STEADY																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3						1	1		1	1	3	2	2			11
1.2																
0.8			1				1	2	2	1	3	3	1			14
0.7																
0.6						1	2	2	3	2	6	5	3			29
SUM			1			1	2	2	3	2	6	5	3			29
TIME	31.7	4.8	21.1	24.6	41.4	83.7	112.9	154.5	147.1	109.5	55.1	19.8	8.9	1.3	1.1	837.9

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400. ALTITUDE 2000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4				1							1					2
1.3				1		4	4	4	2	2	4	3	2			28
1.2		1	1	1												
0.8				1	1	2	1	5	5	7	3	3	1			31
0.7			2	1	1	2	1	5	5	7	3	3	1			31
0.6						6	5	9	7	9	8	6	3			61
SUM		1	3	3	1	6	5	9	7	9	8	6	3			61
TIME	641.3	204.9	161.1	136.9	180.3	263.9	291.5	290.1	266.9	189.0	101.0	42.4	15.9	2.9	1.4	2789.6

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400. ALTITUDE 4000. MISSION SEGMENT ASCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																1
1.2		1														1
0.8																
0.7																
0.6																
SUM		1														1
TIME	0.5	4.9	7.7	5.9	8.2	11.8	7.1	6.9	7.4	3.4	1.8	0.9	0.	0.	0.	66.6

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400. ALTITUDE 4000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																1
1.2		1														1
0.8																
0.7																
0.6																
SUM		1														1
TIME	1.4	6.0	15.4	13.2	24.2	35.0	43.3	56.7	54.0	36.9	17.5	3.3	0.2	0.3	0.1	300.11

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																3
1.3		1									1					4
1.2		7	9	2	3	6	5	4	2	2	4	4	3			47
0.8																
0.7			2	2	4	2	1	5	5	7	3	4	1			36
0.6																
SUM		8	7	5	7	8	6	9	7	9	8	8	4			66
TIME	953.2	300.8	219.2	174.2	226.1	321.8	363.5	371.9	350.7	241.7	124.8	48.5	18.0	3.8	1.8	3720.0

TABLE XXIV - Continued

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2600. ALTITUDE 1000. MISSION SEGMENT MANUVR																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4									2							2
1.3						1	1	2	6							10
1.2																
0.8							2	1	1	1						5
0.7																
0.6					1	3	3	7	3							17
SUM																
TIME	3.4	0.7	0.1	0.1	0.4	1.2	1.1	1.5	0.1	0.	0.	0.	0.	0.	0.	8.6

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2600. ALTITUDE 1000. MISSION SEGMENT STEADY																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3								1								1
1.2																
0.8																
0.7																
0.6																
SUM								1								1
TIME	1.0	0.	0.	0.	0.	0.	0.3	0.3	0.	0.	0.	0.	0.	0.	0.	1.6

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2600. ALTITUDE 1000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4									2							2
1.3						1	1	2	7							11
1.2																
0.8							2	1	1	1						5
0.7																
0.6					1	3	3	8	3							16
SUM																
TIME	7.2	9.0	2.3	0.3	0.7	1.2	1.4	1.8	0.1	0.	0.	0.	0.	0.	0.	20.1

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2600. ALTITUDE 2000. MISSION SEGMENT ASCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																1
1.2				1												
0.8																
0.7																
0.6																
SUM				1												1
TIME	4.7	9.1	2.5	9.4	9.1	2.1	2.0	0.1	0.	0.	0.	0.	0.	0.	0.	29.0

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2600. ALTITUDE 2000. MISSION SEGMENT MANUVR																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3									1							1
1.2																
0.8																
0.7									1							1
0.6																
SUM									2							2
TIME	0.1	4.2	5.3	3.4	3.1	2.1	3.8	2.1	0.6	0.	0.	0.	0.	0.	0.	24.7

TABLE XXIV - Continued

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2600. ALTITUDE 2000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2			1						1							2
0.8																
0.7									1							1
0.6																
SUM			1						2							3
TIME	5.6	9.4	14.4	14.9	14.2	7.6	6.8	2.4	0.9	0.	0.	0.	0.	0.	0.	76.3

GUST NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2600																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																
1.3									2							2
1.2			1		1	1	2	7	1							13
0.8																
0.7						2	1	1	2							6
0.6																
SUM			1		1	3	3	8	5							21
TIME	12.8	14.5	16.7	15.2	15.0	9.5	9.0	4.8	1.0	0.	0.	0.	0.	0.	0.	98.4

GUST NZ PEAKS FOR VELOCITY VS NZ																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																
1.3		5		1	1		4		4		1	2				18
1.2		31	24	18	16	23	30	40	30	12	17	12	14			267
0.8																
0.7		3	7	5	10	8	13	26	28	25	10	10	5	2		152
0.6				1			2	1	2	1			1			8
0.5																
SUM		39	31	25	27	31	49	67	64	38	28	24	20	2		445
TIME	3887.2	1459.6	752.4	498.5	603.4	756.8	886.6	1036.8	1161.5	936.5	589.0	270.3	107.9	27.1		9.812983.4

TABLE XXV. MANEUVER  $n_z$  PEAKS FOR  $\mu$  VERSUS  $n_z$  BY MISSION SEGMENT, ALTITUDE, AND  $C_T/\sigma$

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT. ALTITUDE LESS, $C_T/\sigma$ LESS											
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM	
1.4											
1.3				1				2			3
1.2											
SUM				1				2			3
TIME	0.	0.2	1.9	0.3	0.7	2.9	2.3	0.	0.		8.3

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT. ALTITUDE LESS											
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM	
1.4											
1.3				1				2			3
1.2											
SUM				1				2			3
TIME	0.	0.2	1.9	0.3	0.7	2.9	2.3	0.	0.		8.3

TABLE XXV - Continued

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT, ALTITUDE 1000. CT/S LESS									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.0										1
1.8					1					1
1.6					1					1
1.5										
1.4			1	1			1			3
1.3			1	1	2					4
1.2				2	5	3	1			11
0.8										
0.7				2	1	3				6
0.6				1		1				2
0.5				1						1
0.4										
SUM			2	8	10	7	2			29
TIME	0.	4.4	3.9	5.3	10.7	17.7	8.7	0.	0.	50.6

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT, ALTITUDE 1000. CT/S 0.08									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.8										
1.6				1		1				2
1.5										
1.4			1		2					3
1.3			1	1	5					7
1.2		1	2	1	9	6	3			22
0.8										
0.7					3	2				5
0.6										
SUM		1	4	3	19	9	3			39
TIME	0.	10.7	8.7	15.6	26.5	32.2	9.6	0.3	0.	103.6

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT, ALTITUDE 1000									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.0										
1.8					1					1
1.6				1	1	1				3
1.5										
1.4			2	1	2		1			6
1.3			2	2	7					11
1.2		1	2	3	14	9	4			33
0.8										
0.7				2	4	5				11
0.6				1		1				2
0.5				1						1
0.4										
SUM		1	6	11	29	16	5			68
TIME	0.	15.1	12.6	20.9	37.2	49.8	18.3	0.3	0.	154.2

TABLE XXV - Continued

MANEUVER ALTITUDE	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT.									SUM
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	
2.2										
2.0						1				1
1.8					1		1			2
1.6					2	1	1			4
1.5			1	2		6	1			10
1.4			1	1	4	2				8
1.3				3	8	5	3			19
1.2		2	3	20	24	22	8	1		80
0.8										
0.7				7	11	10	2			30
0.6					3	2	1			6
0.5				1						1
0.4										
SUM		2	5	34	53	49	17	1		161
TIME	0.	25.9	14.1	37.8	88.6	114.6	29.5	0.6	0.	311.1

MANEUVER ALTITUDE	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT.									SUM
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	
2.2										
2.0						1				1
1.8										
1.6		1		1	2		3			7
1.5				2	4	4				10
1.4			1	1	6	7	1			16
1.3			3	6	6	17	6			38
1.2		2	11	20	63	48	16			160
0.8										
0.7		1		6	24	20	7			58
0.6				4	4	3				11
0.5						1				1
0.4										
SUM		4	15	40	109	101	33			302
TIME	0.	50.9	34.6	78.3	285.2	380.3	73.2	0.	0.	902.4

MANEUVER ALTITUDE	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT.									SUM
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	
2.2										
2.0						2				2
1.8					1		1			2
1.6		1		1	4	1	4			11
1.5			1	4	4	10	1			20
1.4			2	2	10	9	1			24
1.3			3	9	14	22	9			57
1.2		4	14	40	87	70	24	1		240
0.8										
0.7		1		13	35	30	9			88
0.6				4	7	5	1			17
0.5				1		1				2
0.4										
SUM		6	20	74	162	150	50	1		463
TIME	0.	77.0	48.8	116.0	373.8	494.9	102.7	0.6	0.	1213.7

TABLE XXV - Continued

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT, ALTITUDE 4000. CT/S LESS									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.5										
1.4				1						1
1.3					1					1
1.2		1		1	1		2			5
0.8						1	2	1		4
0.7										
0.6								1		1
0.5										
0.4										
SUM		1		2	3	2	4			12
TIME	0.	0.1	0.1	0.2	6.8	20.7	3.9	0.	0.	31.7

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT, ALTITUDE 4000. CT/S 0.08									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.5										
1.4					1	1				2
1.3						3				3
1.2			1	3	4	8	2			18
0.8										
0.7					2	2	2			6
0.6										
0.5										
0.4										
SUM			1	3	7	14	4			29
TIME	0.	0.5	0.3	7.6	43.6	70.2	19.7	0.	0.	142.0

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT, ALTITUDE 4000									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.5										
1.4					1	1	1			3
1.3						1	3			4
1.2			1	1	4	5	8	4		23
0.8										
0.7						3	4	3		10
0.6										
0.5								1		1
0.4										
SUM			1	1	5	10	16	8		41
TIME	0.	0.6	0.4	7.8	50.5	90.8	23.7	0.	0.	173.7

TABLE XXV - Continued

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT ASCENT										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.2										
2.0						2				2
1.8					2		1			3
1.6		1		2	5	2	4			14
1.5			1	4	4	10	1			20
1.4			4	4	13	10	2			33
1.3			6	11	22	27	9			75
1.2		6	17	47	106	87	32	1		296
0.8										
0.7		1		15	42	39	12			109
0.6				5	7	6	1			19
0.5				2		1	1			4
0.4										
SUM		8	28	90	201	184	63	1		575
TIME	0.	92.9	63.7	145.0	462.1	638.9	146.9	0.9	0.	1550.4

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR, ALTITUDE LESS, CT/S										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.2										
2.0						1				1
1.8						2				2
1.6				1	3	2	1			7
1.5					2					2
1.4										
1.3				2	1					3
1.2				2		2	3			7
0.8										
0.7						1				1
0.6				1		1	1			3
0.5										
SUM				6	6	9	5			26
TIME	0.	0.	6.4	3.4	2.6	2.3	2.3	0.	0.	18.1

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR, ALTITUDE LESS, CT/S										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.0										
1.8				1		1				2
1.6				1						1
1.5				1	5					6
1.4		1	1		2					4
1.3				4						4
1.2			1	2						3
0.8										
0.7										
0.6										
0.5				1						1
0.4				1						1
0.2										
SUM		1	2	11	7	1				22
TIME	0.	0.1	0.2	3.3	1.5	0.1	0.	0.	0.	5.1

TABLE XXV - Continued

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR, ALTITUDE LESS										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.2										
2.0						1				1
1.8				1		3				4
1.6				2	3	2	1			8
1.3				1	7					8
1.4		1	1		2					4
1.3				6	1					7
1.2			1	4		2	3			10
0.8										
0.7						1				1
0.6				1		1	1			3
0.5				1						1
0.4				1						1
0.2										
SUM		1	2	17	13	10	5			48
TIME	0.	0.1	6.5	6.7	4.1	3.4	2.3	0.	0.	23.2

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR, ALTITUDE 1000. CT/S LESS										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.2										
2.0						1				1
1.8			1	7	11	1				20
1.6		4	4	45	37	11	3			104
1.5		3	23	51	19	7	1			104
1.4		15	44	59	41	9	1			169
1.3		62	122	106	47	14	1			352
1.2		157	283	117	44	14	10			625
0.8										
0.7		2	9	7	4	8	2			32
0.6				3						3
0.5						1				1
0.4						1				1
0.2					1					1
LESS										
SUM		243	486	395	204	67	18			1413
TIME	0.	210.1	361.4	155.1	86.0	43.4	9.6	0.2	0.	865.7

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR, ALTITUDE 1000. CT/S 0.08										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.0										
1.8				3	7	2	1			13
1.6		1	5	41	29	11	1			88
1.5		1	10	51	29	14	1			106
1.4		1	24	68	40	7	1	1		142
1.3		12	70	105	42	13	4	1		247
1.2		76	262	104	35	32	6			515
0.8										
0.7		1	6	6	10	4				27
0.6				1	1	1				3
0.5										
SUM		92	377	379	193	84	14	2		1141
TIME	0.	105.3	274.1	121.6	79.3	44.6	10.9	1.0	0.	636.8



TABLE XXV - Continued

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR, ALTITUDE LESS										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.2										
2.0						1				1
1.8				1		3				4
1.6				2	3	2	1			8
1.5				1	7					8
1.4		1	1		2					4
1.3				6	1					7
1.2			1	4		2	3			10
0.8										
0.7						1				1
0.6				1		1	1			3
0.5				1						1
0.4				1						1
0.2										
SUM		1	2	17	13	10	5			48
TIME	0.	0.1	6.5	6.7	4.1	3.4	2.3	0.	0.	23.2

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR, ALTITUDE 1000. CT/S LESS										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.2										
2.0						1				1
1.8			1	7	11	1				20
1.6		4	4	45	37	11	3			104
1.5		3	23	51	19	7	1			104
1.4		15	44	59	41	9	1			169
1.3		62	122	106	47	14	1			352
1.2		157	233	117	44	14	10			625
0.8										
0.7		2	9	7	4	8	2			32
0.6				3						3
0.5						1				1
0.4						1				1
0.2					1					1
LESS SUM		243	486	395	204	67	18			1413
TIME	0.	210.1	361.4	155.1	86.0	43.4	9.6	0.2	0.	865.7

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR, ALTITUDE 1000. CT/S 0.00										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.0										
1.8				3	7	2	1			13
1.6		1	5	41	29	11	1			88
1.5		1	10	51	29	14	1			106
1.4		1	24	68	40	7	1	1		142
1.3		12	70	105	42	13	4	1		247
1.2		76	262	104	35	32	6			515
0.8										
0.7		1	6	6	10	4				27
0.6				1	1	1				3
0.5										
SUM		92	377	379	193	84	14	2		1141
TIME	0.	105.3	274.1	121.6	79.3	44.6	10.9	1.0	0.	636.8

TABLE XXV - Continued

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR. ALTITUDE 1000										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.2										1
2.0						1				33
1.8			1	10	18	3	1			192
1.6		5	9	86	66	22	4			210
1.5		4	33	102	48	21	2			311
1.4		16	48	127	81	16	2	1		599
1.3		74	192	211	89	27	5	1		1140
1.2		233	545	221	79	46	16			59
0.8										6
0.7		3	15	13	14	12	2			1
0.6				4	1	1				1
0.5						1				1
0.4						1				1
0.2					1					1
LESS										
SUM		335	863	774	397	151	32	2		2554
TIME	0.	315.4	635.4	276.8	165.3	88.0	20.5	1.2	0.	1502.6

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR. ALTITUDE 2000. CT/S LESS										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.4										2
2.2					1	1				10
2.0					3	3	4			36
1.8				6	21	7	2			249
1.6		1	20	125	73	22	6	2		325
1.5		1	43	177	88	13	2	1		473
1.4		10	90	262	81	19	9	2		749
1.3		36	223	311	118	50	10	1		1392
1.2		162	486	338	219	149	37	1		172
0.8										18
0.7		3	10	33	46	50	29	1		5
0.6			1	4	3	9	1			5
0.5					4	1				3
0.4				1	2	2				
0.2					2		1			
LESS										
SUM		213	873	1257	661	326	101	8		3439
TIME	0.	329.0	562.8	380.3	271.0	248.0	86.7	5.7	0.	1883.4

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR. ALTITUDE 2000. CT/S C.00										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.2										5
2.0				1	4					66
1.8				19	32	13	2			432
1.6		1	21	191	175	41	3			490
1.5		4	50	241	140	52	3			692
1.4		8	119	319	153	75	16	2		1198
1.3		69	372	385	176	140	53	3		2121
1.2		226	753	428	330	273	109	2		254
0.8										41
0.7		6	9	39	57	77	66			12
0.6				2	12	23	4			5
0.5					2	10				1
0.4						4	1			
0.2						1				
LESS										
SUM		314	1324	1625	1081	709	257	7		5317
TIME	0.	507.4	915.9	528.8	421.7	486.0	212.8	6.8	0.	3077.4

TABLE XXV - Continued

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR, ALTITUDE 2000. CT/S 0.10										
LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM	
1.6										
1.5				1					1	
1.4			2						2	
1.3										
1.2		3	1		1				5	
0.8										
0.7	2								2	
0.6										
SUM	2	3	3	1	1				10	
TIME	0.	0.4	0.5	0.4	0.5	0.1	0.	0.	0.	1.8

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR, ALTITUDE 2000										
LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM	
2.4										
2.2				1	1				2	
2.0			1	7	3	4			15	
1.8			25	53	20	4			102	
1.6	2	41	316	248	63	9	2		681	
1.5	5	93	418	229	65	5	1		816	
1.4	18	209	583	234	94	25	4		1167	
1.3	105	595	696	294	190	63	4		1947	
1.2	388	1242	767	549	423	146	3		3518	
0.8										
0.7	11	19	72	103	127	95	1		428	
0.6		1	6	15	32	5			59	
0.5				6	11				17	
0.4			1	2	6	1			10	
0.2				2	1	1			4	
LESS										
SUM	529	2200	2885	1743	1036	358	15		8766	
TIME	0.	336.8	1479.1	909.5	693.1	732.1	294.6	12.5	0.	4962.7

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT MANUVR, ALTITUDE 4000. CT/S LESS										
LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM	
1.8										
1.6				1					1	
1.5										
1.4										
1.3					2				2	
1.2				1					1	
0.8										
0.7				1		1			2	
0.6					1				1	
0.5										
0.4										
0.2					1				1	
LESS				1					1	
SUM				4	4	1			9	
TIME	0.	0.	0.	0.	2.8	5.5	3.0	0.	0.	11.3

TABLE XXV - Continued

MANEUVER	NZ PEAKS FOR										4000. CT/5	0.08
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM		
1.8												
1.6						1					1	
1.5				1							1	
1.4				1							1	
1.3			5	2	1	4					12	
1.2	1		6	5	1	16	5				34	
0.8												
0.7				1		4	9				14	
0.6				1		3	1				5	
0.5						1	2				3	
0.4						1					1	
0.2												
SUM		1	11	11	2	30	17				72	
TIME	0.	1.7	5.0	4.2	9.8	76.1	32.1	0.8	0.		129.7	

MANEUVER	NZ PEAKS FOR										4000	
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM		
1.8												
1.6						1	1				2	
1.5				1							1	
1.4				1							1	
1.3			5	2	1	6					14	
1.2	1		6	5	2	16	5				35	
0.8												
0.7				1	1	4	10				16	
0.6				1		4	1				6	
0.5						1	2				3	
0.4						1					1	
0.2						1					1	
LESS						1					1	
SUM		1	11	11	6	34	18				81	
TIME	0.	1.7	5.0	4.2	12.6	81.6	35.1	0.8	0.		141.0	

MANEUVER	NZ PEAKS FOR										SUM	
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35			
2.4												
2.2					1	1					2	
2.0				1	7	5	4				17	
1.8			1	36	71	26	5				139	
1.6	7	50	404	318	88	14	2				883	
1.5	9	126	522	284	86	7	1				1035	
1.4	35	278	711	317	110	27	5				1483	
1.3	179	792	915	385	223	68	5				2567	
1.2	622	1794	997	630	487	170	3				4703	
0.8												
0.7	14	34	86	118	144	107	1				504	
0.6		1	12	16	38	7					74	
0.5			1	6	13	2					22	
0.4			2	2	8	1					13	
0.2				3	2	1					6	
LESS					1						1	
SUM		866	3076	3687	2159	1231	413	17			11449	
TIME	0.	1154.0	2126.1	1197.2	875.1	905.1	357.5	14.4	0.		6629.5	

TABLE XXV - Continued

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT, ALTITUDE LESS, CT/S LESS									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.5										
1.4					1		2			3
1.3						1	1			2
1.2					1					1
0.8										
SUM					2	1	3			6
TIME	0.	0.3	0.8	0.7	0.9	1.7	3.4	0.	0.	7.8

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT, ALTITUDE LESS, CT/S 0.08									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.4										
1.3						1				1
1.2										
SUM						1				1
TIME	0.	0.5	0.5	0.3	0.2	0.3	0.	0.	0.	1.8

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT, ALTITUDE LESS									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.5										
1.4						1		2		3
1.3							2	1		3
1.2					1					1
0.8										
SUM					2	2	3			7
TIME	0.	0.8	1.3	1.0	1.1	1.9	3.4	0.	0.	9.6

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT, ALTITUDE 1000. CT/S LESS									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.0										
1.8					1					1
1.6					1					1
1.5						1	1			2
1.4				1		2	1			4
1.3			5		10	4	2			21
1.2			4	4	6	10	9	1		34
0.8										
0.7					1	2	3			6
0.6										
SUM			9	5	19	19	16	1		69
TIME	0.	12.8	14.1	13.9	20.4	22.2	34.5	1.3	0.	119.2

TABLE XXV - Continued

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT, ALTITUDE 1000. CT/S 0.00									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.8										
1.6				1						1
1.5					1		1			2
1.4								1		1
1.3				1			1			2
1.2			3		4	9	1	1		18
0.8										
SUM			3	2	5	9	3	2		24
TIME	0.	10.0	8.8	6.2	10.9	14.1	7.7	3.5	0.	61.2

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT, ALTITUDE 1000									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.0										
1.8						1				1
1.6					1	1				2
1.5						1	1	2		4
1.4					1		2	1	1	5
1.3				5	1	10	4	3		23
1.2				7	4	10	19	10	2	52
0.8										
0.7						1	2	3		6
0.6										
SUM				12	7	24	28	19	3	93
TIME	0.	22.8	22.8	20.0	31.4	36.3	42.3	4.8	0.	180.4

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT, ALTITUDE 2000. CT/S LESS									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.0										
1.8						1	2			3
1.6					1	3	3	2		9
1.5					3	2	5	5		15
1.4				1	5	6	10	12		34
1.3				1	17	26	33	14		91
1.2			2	2	20	61	60	36	4	185
0.8										
0.7			2		3	19	24	24		72
0.6					1	2	8	3		14
0.5						9	2			11
0.4						4				4
0.2						1				1
LESS										
SUM			4	4	50	134	147	96	4	439
TIME	0.	32.1	26.6	42.3	93.5	180.5	151.4	11.0	0.	537.4

TABLE XXV - Continued

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT, ALTITUDE 2000. CT/S 0.08									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.0										
1.8				1		2	2			5
1.6				2	1	3	2			8
1.5			1	1	3	8	4	1		18
1.4				1	3	12	11			27
1.3			2	4	12	44	22			84
1.2		1	2	9	43	80	52	7		194
0.8										
0.7					4	19	18	3		44
0.6						9	2	1		12
0.5						2				2
0.4						3				3
0.2							1			1
LESS						1				1
SUM		1	5	18	66	183	114	12		399
TIME	0.	33.2	25.4	25.7	70.2	266.9	234.8	11.1	0.	667.4

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT, ALTITUDE 2000. CT/S 0.10									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.4										
1.3						1				1
1.2		1				2				3
0.8										
SUM		1				3				4
TIME	0.	0.4	0.2	0.1	0.	0.3	0.	0.	0.	1.0

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT, ALTITUDE 2000									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.0										
1.8				1	1	4	2			8
1.6				3	4	6	4			17
1.5			1	4	5	13	9	1		33
1.4			1	6	9	22	23			61
1.3			3	21	38	78	36			176
1.2		4	4	29	104	142	88	11		382
0.8										
0.7		2		3	23	43	42	3		116
0.6				1	2	17	5	1		26
0.5					9	4				13
0.4					4	3				7
0.2					1		1			2
LESS						1				1
SUM		6	9	68	200	333	210	16		842
TIME	0.	65.9	52.3	68.2	163.7	447.7	386.2	22.1	0.	1206.2

TABLE XXV - Continued

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT, ALTITUDE 4000, CT/S LESS									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.5										
1.4							1			1
1.3					1					1
1.2						2	2			4
0.8										
0.7						1	3			4
0.6										
SUM					1	3	6			10
TIME	0.	0.	0.	0.	0.5	20.0	25.9	0.	0.	46.3

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT, ALTITUDE 4000, CT/S 0.08									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.6										
1.5					1					1
1.4					1					1
1.3					1	1	1			3
1.2					3	7	6			16
0.8										
0.7						1	3			4
0.6						2				2
0.5										
SUM					6	11	10			27
TIME	0.	0.	0.	0.2	2.4	43.2	52.9	2.1	0.	100.8

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT, ALTITUDE 4000									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.6										
1.5					1					1
1.4					1		1			2
1.3					2	1	1			4
1.2					3	9	8			20
0.8										
0.7							2	6		8
0.6							2			2
0.5										
SUM					7	14	16			37
TIME	0.	0.	0.	0.2	2.9	63.1	78.9	2.1	0.	147.2



TABLE XXV - Continued

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT DESCNT										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.0										
1.8				1	2	4	2			9
1.6				4	5	6	4			19
1.5			1	4	7	14	11	1		38
1.4			1	7	11	24	27	1		71
1.3			8	22	50	85	41			206
1.2		4	11	33	118	170	106	13		455
0.8										
0.7		2		3	24	47	51	3		130
0.6				1	2	19	5	1		28
0.5					9	4				13
0.4					4	3				7
0.2					1		1			2
LESS						1				1
SUM		6	21	75	233	377	248	19		979
TIME	0.	89.5	76.5	89.5	199.1	549.0	510.9	29.0	0.	1543.5

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY, ALTITUDE 1000. CT/S LESS										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.4										
1.3						2	2			4
1.2						5	10			15
0.8										
0.7		1				1	1			3
0.6										
SUM		1				8	13			22
TIME	0.	21.0	3.3	0.	2.5	20.8	50.1	0.	0.	97.7

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY, ALTITUDE 1000. CT/S 0.08											
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM	
1.6											
1.5					1					1	
1.4											
1.3						1	1			2	
1.2						1	4			5	
0.8											
0.7						1	1			2	
0.6											
SUM					1	3	6			10	
TIME	0.	13.7	3.5	0.	1.1	26.4	29.6	0.	0.	74.3	

TABLE XXV - Continued

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY, ALTITUDE 1000										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.6										
1.5					1					1
1.4										
1.3						3	3			6
1.2						6	14			20
0.8										
0.7		1				2	2			5
0.6										
SUM		1			1	11	19			32
TIME	0.	34.6	6.8	0.	3.6	47.2	79.7	0.	0.	171.9

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY, ALTITUDE 2000, CT/S LESS										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.5										
1.4							1			1
1.3		1				2	3			6
1.2		1			4	16	23	2		46
0.8										
0.7		2			3	15	11	1		32
0.6						1	1			2
0.5										
SUM		4			7	34	39	3		87
TIME	0.	67.5	7.3	0.7	31.1	243.5	239.2	4.6	0.	593.9

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY, ALTITUDE 2000, CT/S 0.08										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.6										
1.5						1	1			2
1.4						1				1
1.3		2	1			5	5			13
1.2		6	2		4	60	48	2		122
0.8										
0.7					1	28	26			55
0.6						3	2			5
0.5										
SUM		8	3		5	98	82	2		198
TIME	0.	96.5	17.3	10.9	130.8	669.9	712.7	15.8	0.	1853.9

MANEUVER NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY, ALTITUDE 2000										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.6										
1.5							1	1		2
1.4							1	1		2
1.3		3	1				7	8		19
1.2		7	2		8	76	71	4		168
0.8										
0.7		2			4	43	37	1		87
0.6						4	3			7
0.5										
SUM		12	3		12	132	121	5		285
TIME	0.	164.0	24.6	11.6	161.9	1113.4	951.9	20.4	0.	2447.8

TABLE XXV - Continued

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY, ALTITUDE 4000. CT/S LESS									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.3										
1.2						1	1			2
0.8										
0.7						2				2
0.6										
SUM						3	1			4
TIME	0.	0.4	0.	0.	0.7	54.6	60.1	0.2	0.	116.0

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY, ALTITUDE 4000. CT/S 0.08									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.3										
1.2					1	9	6			16
0.8										
0.7				1			2			3
0.6						1				1
0.5										
SUM				1	1	10	8			20
TIME	0.	1.2	0.2	2.9	42.6	318.4	148.1	0.3	0.	514.6

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY, ALTITUDE 4000									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.3										
1.2						1	10	7		18
0.8										
0.7					1		2	2		5
0.6							1			1
0.5										
SUM					1	1	13	9		24
TIME	0.	1.5	0.2	2.9	43.3	373.0	209.2	0.5	0.	630.6

MANEUVER	NZ PEAKS FOR MU VS NZ BY MISSION SEGMENT STEADY									
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
1.6										
1.5						1	1	1		3
1.4							1	1		2
1.3							10	11		25
1.2		3	1			9	92	92	4	206
0.8										
0.7		3			1	4	47	41	1	97
0.6							5	3		8
0.5										
SUM		13	3	1	14	156	149	5		341
TIME	0.	201.7	31.6	14.4	209.9	1540.8	1240.7	20.9	0.	3260.1

TABLE XXV - Continued

MANEUVER NZ PEAKS FOR MU VS NZ										
	LESS	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.4										2
2.2					1	1				19
2.0				1	7	7	4			191
1.8			1	37	75	30	8			916
1.6		8	50	410	328	96	22	2		1096
1.5		9	128	530	296	111	70	2		1589
1.4		35	283	722	341	145	57	6		2873
1.3		182	807	948	457	345	129	5		5660
1.2		639	1824	1077	863	836	400	21		840
0.8										129
0.7		20	34	105	188	277	211	5		39
0.6			1	18	25	68	16	1		20
0.5				3	15	18	3			8
0.4				2	6	11	1			2
0.2					4	2	2			1
LESS					1	1				2
SUM		893	3128	3853	2607	1948	873	42		13344
TIME	0.	1538.2	2297.8	1446.0	1746.2	3633.8	2256.1	65.2	0.	12983.5

TABLE XXVI. MANEUVER  $n_z$  PEAKS FOR AIRSPEED VERSUS  $n_z$  BY WEIGHT, ALTITUDE, AND MISSION SEGMENT

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS, ALTITUDE 1000, MISSION SEGMENT ASCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																1
1.3		1														1
1.2					1											2
0.8						1										4
0.7		1														5.3
0.6																
SUM		2			2											
TIME	1.3	0.8	0.2	0.7	0.4	1.1	0.8	0.	0.	0.	0.	0.	0.	0.	0.	

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS, ALTITUDE 1000, MISSION SEGMENT MANUVR																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.2									1							1
2.0																2
1.8									1			1				2
1.6																2
1.5		1						1								2
1.4									1							2
1.3									1		1					2
1.2									1	1						2
0.8												1				2
0.7									1				1			2
0.6																
0.5																
0.4																
0.2				1												1
LESS									2	5	1		2			12
SUM		1	1						2	5	1		2			
TIME	0.8	0.4	0.1	0.3	0.1	0.4	0.2	0.3	0.3	0.3	0.3	0.2	0.	0.	0.	3.8

TABLE XXVI - Continued

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS. ALTITUDE 1000. MISSION SEGMENT DESCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																
1.3			1		1		1		1		1					5
1.2	1	2					1				1					5
0.8																
SUM	1	2	1		1		2		1		2					10
TIME	6.0	7.6	1.1	1.0	0.7	1.0	1.2	0.6	1.0	1.2	2.9	2.8	0.9	0.2	0.	23.1

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS. ALTITUDE 1000. MISSION SEGMENT STEADY																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2									1							1
0.8																
0.7	1							1								2
0.6																
SUM	1							1	1							3
TIME	1.9	0.	0.	0.	0.	0.	0.	0.9	1.0	0.1	0.	0.	0.	0.	0.	3.9

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS. ALTITUDE 1000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.2																
2.0									1							1
1.8																
1.6									1			1				2
1.5		1						1								2
1.4																
1.3		1	1		1	1	1	1	2		1					8
1.2	1	2				1	1		2	1	1					9
0.8																
0.7	1	1				1		1	1			1				6
0.6																
0.5																
0.4																
0.2			1													1
LESS																
SUM	2	9	2		1	2	2	3	7	1	2	2				29
TIME	10.0	3.8	1.4	2.0	1.2	2.5	2.2	1.8	2.4	1.6	3.2	2.9	0.9	0.2	0.	36.2

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS. ALTITUDE 1000. MISSION SEGMENT ASCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.2																
2.0						1										1
1.8											1					1
1.6										1						1
1.5		2					1	1								4
1.4						1										1
1.3		1	2	2				2								7
1.2	2	7	6	1	1		5	3	2	2	1	1				31
0.8																
0.7		2	4	1				2	1	1						11
0.6						1	1									2
0.5		1														1
0.4																
SUM	2	13	12	4	1	3	7	8	3	4	2	1				60
TIME	11.5	14.2	13.8	3.0	4.6	12.3	10.0	8.9	6.6	2.9	1.4	3.6	1.3	0.	0.	94.2

TABLE XXVI - Continued

MANEUVER NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT LESS, ALTITUDE 2000. MISSION SEGMENT MANUVR																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
2.2																
2.0				2			1		1						4	
1.8				1			1								2	
1.6		1									2	1		2	6	
1.5		1		1										1	3	
1.4		2	2	1	1									1	8	
1.3	1	4			1			1	1	1		1		1	10	
1.2	1	2	5	4	1	1					2	1			17	
0.8																
0.7	1	6	2	1		1	1		1		2				15	
0.6			1												1	
0.5			1				1								2	
0.4		1		2	1		1								5	
0.2			2								1				3	
LESS SUM	3	17	13	12	4	2	3	3	1	2	6	3	1	4	76	
TIME	1.2	3.1	4.9	5.2	3.6	4.7	5.2	3.9	5.0	4.7	2.5	4.0	2.6	0.4	0.4	31.4

MANEUVER NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT LESS, ALTITUDE 2000. MISSION SEGMENT DESCHT																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
2.0							1	1							2	
1.8															1	
1.6		1													1	
1.5								1	1						2	
1.4	1	2	1	1	1	1	1	2	2	1					11	
1.3	2	5	2	1	9	2	3	4	2	2	1				33	
1.2	2	7	9	7	5	5	7	1	1	3	1	3	2	2	59	
0.8																
0.7		2	3	2		6	1	3	2		1	3	1		24	
0.6		1				1			1						3	
0.5			2	1											3	
0.4			1		1										3	
0.2			1												2	
LESS SUM	3	18	19	12	14	14	13	10	9	6	4	6	3	2	137	
TIME	19.2	19.2	10.8	8.3	4.4	8.7	13.3	16.4	11.4	13.2	12.1	10.1	13.3	1.9	1.1	134.0

MANEUVER NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT LESS, ALTITUDE 2000. MISSION SEGMENT STEADY																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
1.4																
1.3										1					1	
1.2											2	2	1		6	
0.8																
0.7												1			1	
0.6										1	1	2	3	1	8	
LESS SUM									1	1	2	3	1		8	
TIME	3.0	0.1	0.	2.0	3.2	6.0	11.7	13.2	17.0	11.1	20.0	30.2	17.5	2.6	0.	137.5

MANEUVER NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT LESS, ALTITUDE 2000																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
2.2																
2.0				2		1	1		1						5	
1.8				1			1	2		1					5	
1.6		2							1	1	2	1		2	8	
1.5		3		1		1	1	1	1					1	9	
1.4	1	4	3	2	2	1	1	2	2	1			1	1	20	
1.3	3	10	4	3	10	2	3	7	3	3			1		31	
1.2	3	16	20	12	7	6	12	4	3	6	2	8	5	1	109	
0.8																
0.7	1	10	9	4		7	2	3	4	1	1	3	2		51	
0.6		1	1			2	1								6	
0.5		1	3	1			1	1							6	
0.4		1	1	2	2		1								6	
0.2			3								1				7	
LESS SUM	10	48	44	28	21	19	23	21	13	13	9	13	9	2	281	
TIME	28.4	32.7	29.8	19.1	19.7	31.7	40.2	42.4	39.9	31.9	33.9	47.8	34.8	5.0	1.5	437.0

TABLE XXVI - Continued

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS, ALTITUDE 4000. MISSION SEGMENT MANUVR																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.8																
1.6			1													1
1.5																
1.4																
1.3								1								1
1.2																
0.8					1											1
0.7																
0.6																
0.5																
0.4																
0.2								1								1
LESS		1														1
SUM		1	1		1			2								5
TIME	0.	0.1	0.1	0.	0.1	0.2	0.2	0.3	0.	0.	0.	0.	0.	0.	0.	1.0

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS, ALTITUDE 4000. MISSION SEGMENT STEADY																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
0.8								1								1
0.7																
0.6								1								1
SUM								1								1
TIME	0.	0.	0.	0.	0.	0.3	1.1	3.2	6.3	4.2	2.1	2.2	1.3	0.2	0.	23.1

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS, ALTITUDE 4000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.8																
1.6			1													1
1.5																
1.4																
1.3								1								1
1.2																
0.8					1		1									2
0.7																
0.6																
0.5																
0.4																
0.2								1								1
LESS		1														1
SUM		1	1		1		1	2								6
TIME	0.	0.1	0.6	0.4	2.0	2.3	3.9	13.1	13.9	5.0	2.5	2.2	1.3	0.2	0.	47.6

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT LESS																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.2																
2.0																
1.8				2		1		1	1	1						6
1.6				1			1	2			1					5
1.5		2	1						1	1						11
1.4		4	1	1			1	2	1	1		3	1		2	11
1.3	1	4	3	2	2	1	1	1	2	1				1	1	20
1.2	3	11	5	3	11	2	4	9	4	3	4					60
0.8	6	18	20	12	7	7	13	4	5	7	3	8	5	1	2	118
0.7	2	11	9	4	1	8	3	6	5	1	1	6	2			39
0.6		1	1			2	1									6
0.5		1	3	1			1									6
0.4		1	1	2	2		1									7
0.2			4					1				1				4
LESS		1														1
SUM	12	34	47	28	23	21	26	26	20	14	11	17	9	2	6	316
TIME	38.9	36.6	31.7	21.3	18.9	36.6	43.9	37.3	34.7	38.3	41.7	32.9	37.2	3.4	1.3	320.3

TABLE XXVI - Continued

MANEUVER NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT		2000. ALTITUDE		LESS. MISSION SEGMENT MANUVR												
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
1.8					1										1	
1.6																
1.5																
1.4																
1.3																
1.2	1						1		1	2					5	
0.8																
0.7											1				2	
0.6	1															
0.5						1		1		1	3				6	
SUM	2					1		1		1	3				6	
TIME	0.3	1.2	0.2	0.1	0.3	0.3	0.7	0.3	0.6	0.4	0.6	0.6	0.	0.	0.	9.7

MANEUVER NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT		2000. ALTITUDE		LESS. MISSION SEGMENT DESCNT												
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
1.4										1					2	
1.3																
1.2																
SUM										1					2	
TIME	0.8	0.4	0.2	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.3	0.4	0.3	0.	0.	3.6

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT		2000. ALTITUDE		LESS												
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
1.8					1										1	
1.6																
1.5																
1.4																
1.3							1		1	2					2	
1.2	1							1	1	1	2				5	
0.8																
0.7												1			2	
0.6	1															
0.5						1	1	1		2	3				10	
SUM	2					1	1	1		2	3				10	
TIME	1.2	1.7	0.4	0.1	0.4	0.5	1.0	0.5	0.8	0.3	0.9	1.0	0.3	0.	0.	9.3

MANEUVER NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT		2000. ALTITUDE		1000. MISSION SEGMENT ASCENT											
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.5															1
1.4	1														1
1.3															1
1.2		1								1					2
0.8															
SUM	2	1								1					4
TIME	2.3	0.6	0.9	0.5	1.4	0.8	1.0	1.4	1.3	0.1	0.	0.	0.	0.	10.3

MANEUVER NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT		2000. ALTITUDE		1000. MISSION SEGMENT MANUVR												
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
2.0																
1.8		3	3												6	
1.6		3	8	4	2	1	2								22	
1.5		9	11	2	2	1	1		1						27	
1.4		23	13	4											40	
1.3		66	13	3	1		4	2							89	
1.2		171	17	4	2	2	3		1						200	
0.8																
0.7	4	1					1								6	
0.6																
0.5																
0.4							1								1	
0.3																
0.2																
SUM	274	66	20	7	5	9	6	1		1					391	
TIME	162.8	30.4	9.3	4.1	3.5	4.9	4.6	2.6	0.3	0.3	0.3	0.	0.	0.	0.	223.2



TABLE XXVI - Continued

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2000. ALTITUDE 1000. MISSION SEGMENT DESCNT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4								1								1
1.3									1							1
1.2				1	2			1		1						10
1.1	1		3			1	2	2		1		1			1	12
0.9									1			1				2
0.7																2
0.6																2
SUM	5		4	1	2	1	2	4	2	2	1	1			1	26
TIME	8.3	9.0	9.1	2.4	2.2	1.3	1.5	1.9	4.9	3.5	2.7	0.7	0.4	0.4	0.2	38.9

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2000. ALTITUDE 1000. MISSION SEGMENT STEADY																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																1
1.3									1							1
1.2																1
SUM									1							1
TIME	11.3	0.	0.	0.	0.5	0.3	0.3	0.3	9.1	2.7	2.7	0.2	0.	0.	0.	23.5

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2000. ALTITUDE 1000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.0																4
1.8			3	3												22
1.6		3	8	4	2	1	2									28
1.5		9	11	2	2	1	1	2								42
1.4		24	19	4	4	4	2	1	1	1						101
1.3		71	19	4	2	2	4	2	1	1					1	214
1.2		172	18	7	2	2	4	2	2	3		1				
0.9																8
0.7	4	1							1		1					1
0.6																1
0.5							1									1
0.4																1
0.2																1
SUM	289	67	24	8	7	10	8	5	3	4	1	1			1	422
TIME	184.7	36.0	19.3	7.0	7.7	7.2	7.5	6.2	11.6	6.6	9.6	0.8	0.4	0.6	0.2	295.3

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2000. ALTITUDE 2000. MISSION SEGMENT ASCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.8																2
1.6				2												3
1.5	1						1			1						3
1.4	1	1		1												3
1.3				3	1			3	2	2						8
1.2	3	9	7		3	1	1	3	1					1		29
0.8			2	2	2			4				1				11
0.7			2		1			1								2
0.6																2
0.5																2
SUM	5	12	12	4	6	1	2	8	3	3	1			1		98
TIME	21.2	18.1	14.6	13.3	15.9	13.6	11.1	10.7	8.6	8.0	3.4	1.6	0.5	0.5	0.	141.5

TABLE XXVI - Continued

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2000. ALTITUDE 2000. MISSION SEGMENT MANUVR																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.4																
2.2				1	1											2
2.0					1			1	1	2						5
1.8				2	1			1	1							5
1.6	2	12	10	2	1	1	3	1		1						31
1.5	9	26	16	2	2		2		1							58
1.4	18	56	14	4	2		2	3	2	2						101
1.3	57	73	20	7	10	3	4	3	2	2			2			193
1.2	146	75	35	18	16	12	9	8	8	1	1					329
0.8																
0.7	5	15	7	3	1	4	1	7	1	2						46
0.6		2	1				1		1			1				6
0.5			1	1												2
0.4																
SUM	247	261	104	38	35	20	22	24	14	10	2	2				781
TIME	222.4	87.9	43.0	25.2	27.3	27.3	29.7	25.5	19.3	13.1	5.7	1.8	0.5	0.1	0.	528.7

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2000. ALTITUDE 2000. MISSION SEGMENT DESCNT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.0																
1.8									1							1
1.6			2					2		1						5
1.5		2	1										1			3
1.4		1	1	1		1	1	1	2	4			1			13
1.3		10	6	1	4	1	4	4	4	3			1			36
1.2	1	10	15	8	8	5	6	7	8	5	5				1	79
0.8																
0.7			1	2	8			4	4	6	2	1				28
0.6				1				1	1	1		1				5
0.5			4	2												7
0.4			1	1												2
0.2																
SUM	1	23	31	16	20	8	16	15	20	20	7	5			1	183
TIME	29.1	18.8	22.7	14.6	13.7	14.9	18.2	25.4	23.9	26.8	17.9	7.4	5.1	1.4	0.1	248.0

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2000. ALTITUDE 2000. MISSION SEGMENT STEADY																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																
1.3	1															2
1.2			1		1		1	2	3	3			1			12
0.8																
0.7	2		1	1				5	3	3	4		1			20
0.6									1		1					2
0.5																
SUM	3		2	1	1		1	7	7	6	5	1	2			36
TIME	39.4	0.4	2.8	5.5	14.9	19.6	21.3	32.8	51.4	31.3	22.7	9.5	0.6	0.	0.	252.1

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2000. ALTITUDE 2000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.4																
2.2				1	1											2
2.0					1			1	1	2						5
1.8				2	1			1	1							5
1.6	2	12	14	2	1	1	3	3		2						38
1.5	10	28	17	2	2	1	3		1	1			1			66
1.4	19	58	15	6	2	1	3	4	2	4			1			117
1.3	68	83	26	11	15	4	8	7	8	7			3	1		241
1.2	150	94	58	26	28	18	17	20	20	9	6		1		1	449
0.8														1	1	
0.7	7	17	11	6	11	4	5	16	8	11	7	1	1			105
0.6		2	2	1			2	2	2	1	2	1				15
0.5				3												3
0.4			1	1					1							2
0.2																
SUM	256	296	151	59	62	29	41	54	44	39	15	8	2	1	1	1098
TIME	512.1	125.2	83.1	58.8	71.8	75.4	80.3	94.4	103.2	79.2	49.7	20.4	6.7	2.0	0.1	1162.3

TABLE XXVI - Continued

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2000. ALTITUDE 4000. MISSION SEGMENT ASCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.5																
1.4		1														1
1.3				1												1
1.2	2	1	1						1	2						7
0.8							2			1						3
0.7										1						1
0.6										1						1
0.5																
0.4	2	2	1	1			2		1	4						13
SUM																
TIME	0.2	0.3	1.8	1.6	1.0	3.1	6.8	5.1	6.2	4.1	0.9	0.	0.	0.	0.	31.0
MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2000. ALTITUDE 4000. MISSION SEGMENT MANUVE																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
0.8																
0.7										1						1
0.6										1						1
SUM																
TIME	0.	0.	0.8	0.4	1.5	0.8	1.5	0.4	0.9	1.7	0.9	0.3	0.	0.	0.	9.0
MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2000. ALTITUDE 4000. MISSION SEGMENT DESCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.5																
1.4												1				1
1.3					1											1
1.2			2				1	1		2	1					7
0.8																
0.7								1				1		2		4
0.6																
SUM			2		1		1	2		2	3		2			13
TIME	0.	0.	0.3	0.1	0.3	1.5	1.2	4.2	4.6	8.2	9.0	2.7	0.6	0.	0.	32.7
MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2000. ALTITUDE 4000. MISSION SEGMENT STEADY																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.5																
1.2										1						1
0.8																
0.7								1								1
0.6										1						1
SUM																2
TIME	0.5	0.	0.	0.1	2.9	6.4	8.1	15.4	23.7	26.5	18.3	3.2	0.2	0.	0.	109.3
MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2000. ALTITUDE 4000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.5																
1.4		1										1				2
1.3				1	1											2
1.2	2	1	3				1	1	1	5	1					15
0.8																
0.7							3	1		2	1		2			9
0.6																
0.5										1						1
0.4																
SUM	2	2	3	1	1		4	2	1	8	3		2			29
TIME	0.7	0.3	2.8	2.2	5.6	11.7	17.7	25.0	35.5	40.5	29.0	6.2	0.8	0.	0.	178.1

TABLE XXVI - Continued

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.4																
2.2				1	1											2
2.0					1			1	1	2						5
1.8		5	5	2	1			1	1							15
1.4	5	20	18	2	3	3	5	3		2						61
1.3	19	39	19	4	3	2	3	2	1	1		1				94
1.4	43	72	19	6	2	1	3	4	3	6	1	1				161
1.3	139	96	30	14	18	8	11	8	9	9		3	1			346
1.2	324	114	68	28	30	22	20	24	21	18	9	2	1	1	2	683
0.8																
0.7	11	18	11	6	11	4	9	17	9	13	9	1	3			122
0.6		3	2	1			2	2	2	1	3	1				17
0.5			5	3					1	1						10
0.4			1	1				1								3
0.2																
SUM	941	367	178	68	70	40	54	62	48	53	22	9	4	1	2	1519
TIME	498.7	183.2	99.5	68.1	85.5	94.8	106.4	126.2	191.6	128.9	85.3	28.4	8.2	2.6	0.3	1645.8
MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200. ALTITUDE LESS, MISSION SEGMENT ASCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																
1.3	1							1	1							3
1.2																
SUM	1							1	1							3
TIME	1.0	0.3	0.	0.3	0.1	0.6	0.7	0.2	0.4	0.9	0.4	0.	0.	0.	0.	4.7
MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200. ALTITUDE LESS, MISSION SEGMENT MANUVN																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.2																
2.0							1									1
1.8		1				1		2								4
1.6		1	2		1				1			1				6
1.5			4		2											6
1.4	1		1													2
1.3		2		1												3
1.2		1				1										2
0.8																
0.7								1	1							1
0.6								1								1
0.5																
0.4		1														1
0.2																
SUM	1	6	7	1	3	2	2	3	1			1				27
TIME	6.1	3.2	1.9	0.4	0.7	0.3	0.2	0.7	0.4	0.4	0.1	0.1	0.	0.	0.	14.4
MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200. ALTITUDE LESS, MISSION SEGMENT DESCNT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.5										1	1					3
1.4				1												1
1.3								1								1
1.2				1												1
0.8										1	1					3
SUM				2			1			1	1					5
TIME	1.3	0.4	0.2	0.3	0.2	0.5	0.3	0.1	0.2	0.6	0.2	1.2	0.2	0.	0.	6.0

TABLE XXVI - Continued

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200. ALTITUDE LESS																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.2																
2.0							1									1
1.8		1				1		2								4
1.6		1	2		1			1				1				6
1.5			4		2				1							6
1.4	1		1	1						1	1					5
1.3	1	2		1					1							7
1.2		1		1		1										3
0.8																
0.7								1								1
0.6							1									1
0.5																
0.4		1														1
0.2																
SUM	2	6	7	3	3	2	4	3	2	1	1	1				35
TIME	8.4	4.1	2.1	1.0	1.0	1.4	1.2	1.0	0.9	1.9	0.6	1.3	0.2	0.	0.	29.2

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200. ALTITUDE 1000. MISSION SEGMENT ASCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.0																
1.8			1													1
1.6			1													1
1.5																
1.4		1														2
1.3			1		1								1			2
1.2		1		2			1	1		1						4
0.8																
0.7		1				1		1								3
0.6							1									1
0.5		1														1
0.4																
SUM		4	3	2	1	1	2	2		1			1			17
TIME	3.0	4.3	2.1	1.1	3.0	3.4	1.0	2.9	4.2	2.6	2.9	0.1	0.1	0.	0.	31.6

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200. ALTITUDE 1000. MISSION SEGMENT MANUVR																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.0																
1.8	1	7	8	1	1	2	1									21
1.6	8	34	25	9	1	2	3	1	2			1				100
1.5	25	63	14	6	4	1	1									119
1.4	91	75	24	10	8	4	1	2	1							176
1.3	160	133	27	14	4	5	2	1				1				308
1.2	371	128	31	10	9	5	3	2	8	5	2					574
0.8																
0.7	8	9	6	2	2	4	1	1		1						34
0.6		3														3
0.5							1									1
0.4																
SUM	624	472	135	52	29	23	13	8	11	4	3	2				1378
TIME	532.8	169.4	54.6	23.0	17.9	11.8	6.7	8.3	7.8	6.0	4.1	1.5	0.3	0.	0.	844.1

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200. ALTITUDE 1000. MISSION SEGMENT DESCNT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.0																
1.8					1											1
1.6		1			1											2
1.5											1					1
1.4		1						1		1						4
1.3		1	1	1	1		1					1				6
1.2	4	2	1	1	2	3	1	2	3	2	4		1		1	26
0.8																
0.7			1			1						2				4
0.6																
0.5																
0.4																
SUM	4	5	3	1	5	4	2	3	3	3	7	1	1	1	1	44
TIME	21.0	9.2	6.0	3.2	3.2	4.8	3.0	3.2	3.4	3.4	11.9	4.4	0.9	0.9	1.9	82.4

TABLE XXVI - Continued

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200. ALTITUDE 1000. MISSION SEGMENT STEADY															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.6															
1.5			1												1
1.4															
1.3								2	1	2					5
1.2					1	2		5	5	4					17
0.8							1								
0.7								1	1						3
0.6															
SUM			1		1	3		8	7	6					26
TIME	11.8	0.	0.2	1.0	1.8	4.6	3.5	2.9	11.8	26.3	20.8	4.8	0.7	0.	90.0

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200. ALTITUDE 1000															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.0															
1.8	1	7	9	1	2	2	1								23
1.6	8	55	26	9	2	2	3	1	2			1			100
1.5	25	63	14	7	4	1	1	1		1					117
1.4	31	77	24	10	8	4	1	3	1	1			1	1	182
1.3	160	134	29	15	6	5	3	1	2	1	3	2			361
1.2	375	131	32	12	11	9	7	5	16	13	10		1	1	623
0.8															
0.7	8	10	7	2	2	6	2	2	1	2	2				44
0.6	3														4
0.5	1														2
0.4															
SUM	628	481	141	56	35	29	20	13	22	17	16	3	2	1	1468
TIME	569.3	183.0	63.0	28.3	25.9	24.5	14.2	17.3	27.3	40.2	39.6	10.9	1.9	0.9	1090.1

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200. ALTITUDE 2000. MISSION SEGMENT ASCENT															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.0															
1.8			1												1
1.6		1		1				1		2		1			6
1.5		1	1	1	1			2	3						8
1.4	1	1	4	1	2	2		4							12
1.3	2	6	1	1	1	2	5	4	1	3					26
1.2	4	8	14	7	6	7	4	5	6	2	3				66
0.8															
0.7		6	4	1	1	3	6	1	3	2					27
0.6		2	1		2	2				1					8
0.5															
SUM	7	25	26	11	13	16	15	14	13	10	3	1			154
TIME	37.0	31.5	38.3	29.2	40.5	43.7	37.7	29.4	22.3	17.1	6.1	3.5	0.	0.	336.3

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200. ALTITUDE 2000. MISSION SEGMENT MANUVR															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.2															
2.0															
1.8		1	1	3											5
1.6		26	26	3	8	4	2	4	1	2	2				78
1.5	42	294	140	37	27	16	14	5	4	4					563
1.4	88	360	120	27	16	16	10	7	2		3		1		650
1.3	190	459	100	31	32	19	13	11	9	6	1	2	1	1	875
1.2	314	922	112	50	42	44	25	24	29	11	7	5	6	2	1394
1.1	1113	598	194	97	95	81	86	56	62	52	18	14	4	1	2471
0.8															
0.7	13	48	70	23	19	16	24	21	37	29	11	4	2		277
0.6	1	3	3	4	4	3	5	6	6	1	1	1			38
0.5		1			1	2	1								5
0.4								2	1						3
0.2															
SUM	1961	2312	724	275	244	201	180	136	151	105	43	26	14	3	6379
TIME	1585.6	682.2	227.	108.3	106.7	97.1	96.5	90.9	97.5	92.1	41.8	16.3	8.3	2.1	1.4 3254.2

TABLE XXVI - Continued

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200, ALTITUDE 2000, MISSION SEGMENT DESCENT																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
2.0																
1.8		1	1				1					1			4	
1.6		1	1				1	3							6	
1.5	1	2	1		2		3	2	1	4		1			20	
1.4	1	1	1	1	2		2	4	1	4	2	1			20	
1.3		5	5	5	5	10	5	15	5	6	2	4	1		71	
1.2	6	12	17	15	12	25	19	11	14	15	19	7	3	1	180	
0.8																
0.7	2	2	2	2	1	2	2	5	13	5	7	4	1	1	49	
0.6					1	6	3	2	3			1	1	1	18	
0.5						1	1	1							3	
0.4						1	2								3	
0.2								1							1	
LESS SUM	10	24	28	23	27	44	40	44	45	31	34	17	8	2	376	
TIME	61.0	26.9	23.6	19.0	23.5	34.8	46.6	64.4	74.6	77.7	68.6	34.1	15.7	5.8	2.5	578.2

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200, ALTITUDE 2000, MISSION SEGMENT STEADY																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
1.5																
1.4							2	1	1	1					1	
1.3	3			3	5	8	11	14	21	13	14	2	2		8	
1.2	9	1													103	
0.8																
0.7				1	4	7	3	10	12	5					42	
0.6							1	1	1	1					4	
0.5																
SUM	12	1		3	6	12	18	20	33	27	22	2	2		158	
TIME	115.0	7.7	15.1	16.3	28.8	55.3	104.7	154.6	246.1	238.1	144.4	52.7	12.3	9.1	0.3	1196.3

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200, ALTITUDE 2000																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
2.2																
2.0		1	1	3											5	
1.8		27	28	3	8	4	2	5	1	2	2		1		63	
1.6	42	296	141	38	27	16	14	7	7	6		1			595	
1.5	89	363	122	27	19	16	13	12	7	1	7		2		678	
1.4	192	461	105	33	36	21	15	16	10	10	4	3	1	1	908	
1.3	519	333	118	56	48	56	38	45	36	21	10	9	7	2	1499	
1.2	1132	619	225	122	118	119	120	46	107	82	54	23	9	1	2820	
0.8																
0.7	15	56	16	26	22	25	39	30	63	48	23	8	3	1	395	
0.6	1	5	4	4	7	11	8	9	10	3	2	2	1	1	68	
0.5		1			1	3	2	1							8	
0.4					1	2	2	1							6	
0.2								1							1	
LESS SUM	1990	2362	780	312	286	773	253	214	242	173	102	46	24	5	7067	
TIME	1798.6	747.9	304.4	172.7	199.5	230.9	285.5	339.2	440.5	425.0	240.9	106.7	36.3	13.0	4.1	5365.1

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200, ALTITUDE 4000, MISSION SEGMENT ASCENT																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
1.5																
1.4					1			1							2	
1.3								1							1	
1.2			1		2		3	1	1						8	
0.8																
0.7				2		1		1			1				5	
0.6																
0.5			1	2	3	1	3	4	1		1				16	
SUM																
TIME	0.3	2.6	7.1	9.8	10.9	7.7	5.2	10.0	6.9	3.4	2.2	0.	0.	0.	0.	66.1

TABLE XXVI - Continued

MANEUVER NZ PEAKS FOR VELOCITY VS		NZ BY WEIGHT		2200.		ALTITUDE		4000.		MISSION SEGMENT		MANUVR		SUM	
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.6															
1.5		1													1
1.4		1													1
1.3	5	2		1	1	1									9
1.2	7	5		1	2	1	1	1	1			1	1		22
0.8															
0.7		1								1	3	3			8
0.6										1					1
0.5												2			2
0.4															
SUM	12	10		1	3	1	2	1	1	3	3	6	1		44
TIME	6.7	3.3	1.6	1.6	2.1	5.4	4.0	16.5	15.1	6.0	1.7	1.8	0.4	0.4	66.4

MANEUVER NZ PEAKS FOR VELOCITY VS		NZ BY WEIGHT		2200.		ALTITUDE		4000.		MISSION SEGMENT		DESCNT		SUM	
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.6															
1.5				1											1
1.4				1											1
1.3					2							1			3
1.2			1		1	1	1			1	2	1			8
0.8															
0.7						1			1	1					3
0.6						1									1
0.5															
SUM			1	2	3	3	1		1	2	2	2			17
TIME	0.	0.2	0.4	0.5	1.4	3.2	5.3	8.3	14.5	14.3	9.8	6.7	3.7	1.0	69.4

MANEUVER NZ PEAKS FOR VELOCITY VS		NZ BY WEIGHT		2200.		ALTITUDE		4000.		MISSION SEGMENT		STEADY		SUM	
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.6															
1.5															
1.4															
1.3					3	4	1	2	1	1	2				14
1.2															
0.8															
0.7			1							2					3
0.6						1									1
0.5															
SUM			1		3	5	1	2	1	3	2				18
TIME	0.3	3.4	7.0	5.8	17.2	20.8	46.5	84.3	96.9	38.6	22.4	13.1	2.0	0.	358.6

MANEUVER NZ PEAKS FOR VELOCITY VS		NZ BY WEIGHT		2200.		ALTITUDE		4000.		MISSION SEGMENT		MANUVR		SUM	
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.6															
1.5		1		1											2
1.4		1		1				1							4
1.3	5	2		1	3			1				1			13
1.2	7	5	2	1	8	6	6	4	3	3	4	2	1		52
0.8															
0.7		2		2				1	1	4	4	3			19
0.6						2				1					3
0.5												2			2
0.4															
SUM	12	11	2	5	12	10	7	7	4	8	8	8	1		99
TIME	7.3	9.5	16.1	17.7	31.6	37.2	61.0	119.1	133.4	62.2	36.1	21.7	6.1	1.4	560.4



TABLE XXVI - Continued

MANUEVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2200																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.2																
2.0																
1.8		1	1	3			1									6
1.6		35	37	4	10	7	3	7	1	2	2		1			110
1.5		90	352	149	47	30	18	17	8	10	4	3				710
1.4		114	427	140	39	25	17	14	13	7	1	8	2			809
1.3		244	939	130	45	45	29	14	20	11	12	5	3	2	2	1099
1.2		685	671	147	72	57	61	44	47	39	22	13	12	7	2	1880
0.8		1514	756	259	136	137	135	133	95	126	98	68	25	11	1	3498
0.7		23	68	43	30	24	33	41	34	65	54	29	11	3		459
0.6		1	8	4	4	7	13	10	9	10	4	2	2	1	1	74
0.5			2			1	3	3	1				2			12
0.4			1				1	2	2	1						7
0.2									1							1
LESS						1										1
SUM	2607	2860	930	376	336	314	284	237	270	199	127	58	27	6	6	8662
TIME	2383.6	944.5	385.5	219.6	258.0	294.1	361.8	476.6	602.1	529.4	337.2	140.5	44.5	15.2	6.2	6998.8

MANUEVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400, ALTITUDE LESS, MISSION SEGMENT MANUVR																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.8																
1.6			1													1
1.5			2													2
1.4		1		1												2
1.3			4													4
1.2		1	2													3
0.8																
0.7																
0.6																
0.5			1													1
0.4																
SUM	2	10	1													13
TIME	0.2	2.8	0.1	0.	0.	0.	0.	0.	0.	0.	7.	0.	0.	0.	0.	3.1

MANUEVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400, ALTITUDE LESS																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.8																
1.6			1													1
1.5			2													2
1.4		1		1												2
1.3			4													4
1.2		1	2													3
0.8																
0.7																
0.6																
0.5			1													1
0.4																
SUM	2	10	1													13
TIME	2.8	2.8	0.7	0.8	0.4	1.8	2.5	1.3	0.4	0.5	0.3	0.	0.	0.	0.	14.4

MANUEVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400, ALTITUDE 1000, MISSION SEGMENT ASCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.8																
1.6			1				1									2
1.5																
1.4		1		2												3
1.3		1	2	1	1	2										7
1.2		3	1	2	5	3	2	1	3		2					22
0.8																
0.7																
0.6			1	3		1			2							6
0.5																1
SUM	5	5	8	6	6	3	1	5			2					41
TIME	17.6	12.0	10.3	8.3	6.4	7.5	10.6	8.7	6.1	3.6	1.1	1.9	1.0	0.	0.	97.1

TABLE XXVI - Continued

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400. ALTITUDE 1000. MISSION SEGMENT MANUVR																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
2.0																
1.8		1	2	1	1					1					6	
1.6	3	25	15	3	5	7	1	2	1						62	
1.5	7	26	16	4	4	5	5	2	2	1					66	
1.4	13	40	25	7	2	3	2	1				1	1		95	
1.3	57	97	14	10	6	3	2	4	5						159	
1.2	248	62	13	5	1	10	4	6	7		1				357	
0.8																
0.7	6	3	5		1			1							16	
0.6		1		1		1									3	
0.5																
SUM	336	215	90	27	20	29	14	14	14	2	2		2	1	764	
TIME	263.5	71.2	28.6	11.9	11.7	10.4	9.5	6.8	4.9	1.5	1.1	0.5	0.9	0.3	423.1	

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400. ALTITUDE 1000. MISSION SEGMENT DESCNY																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
1.6																
1.5					1				1						2	
1.4																
1.3	1	1													2	
1.2	1		1	2		2	2		1						9	
0.8																
SUM	2	1	1	2	1	2	2		1	1					13	
TIME	11.2	4.1	3.0	3.0	2.4	2.4	2.6	3.4	1.7	1.0	0.9	0.2	0.2	0.3	36.4	

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400. ALTITUDE 1000. MISSION SEGMENT STEADY																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
1.3																
1.2									1	1					2	
0.8																
SUM									1	1					2	
TIME	15.5	0.	0.	0.1	0.5	0.8	3.5	5.4	14.7	9.3	3.0	0.1	0.	0.	32.9	

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400. ALTITUDE 1000																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
2.0																
1.8		1	2	1	1						1				6	
1.6	3	26	15	3	5	8	1	2	1						64	
1.5	7	26	16	4	5	5	5	2	2						68	
1.4	14	40	27	7	2	3	2	1				1	1		98	
1.3	59	60	15	11	8	3	2	4	5			1			168	
1.2	252	65	16	12	4	14	7	9	9	1	3				390	
0.8																
0.7	6	3	8		2			3							22	
0.6		2		1		1									4	
0.5																
SUM	341	221	99	35	27	34	17	19	16	4	4		2	1	820	
TIME	407.7	87.2	41.9	23.4	21.2	21.1	26.2	24.3	29.4	15.3	6.0	2.8	2.0	0.6	609.4	

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400. ALTITUDE 2000. MISSION SEGMENT ASCENT																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
2.2																
2.0						1									1	
1.8																
1.6	1			1											2	
1.5		1		2	1	1									5	
1.4			2	1	2	1	1			1					8	
1.3	1	2	1	2	1	4	1	1	1	1	1				14	
1.2	8	16	16	12	14	4	17	7	7	5	3				109	
0.8																
0.7		3	3	9	6	3	4		2		1	1			38	
0.6		3		1			1								5	
0.5							1								1	
0.4																
SUM	10	27	24	28	22	17	25	9	10	6	6	1			185	
TIME	52.4	58.9	70.0	62.7	75.3	85.7	84.8	55.0	38.5	27.2	10.2	1.1	0.1	0.	616.7	

TABLE XXVI - Continued

MANEUVER NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2400, ALTITUDE 2000, MISSION SEGMENT MANUVR															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.2															
2.0						1									1
1.8		1	5	3	1		2	1	1						14
1.6	7	17	13	7	4	3	2	4	4						81
1.5	7	35	20	4	5	5	8	5	4	1					96
1.4	33	59	18	5	12	13	7	1	4	3	5	1			161
1.3	149	78	28	14	10	21	7	7	14	6	5	3			342
1.2	394	84	35	22	39	27	21	22	16	18	7	4			689
0.8															
0.7	11	7	7	4	6	8	4	10	9	17	3	3			89
0.6		1	2	2	1	1	2	3	2						14
0.5					1	2	2	2	3						8
0.4						2	2								2
0.2								1							1
LESS															
SUM	601	282	128	63	79	81	57	54	57	45	20	11			1478
TIME	339.7	131.1	56.9	39.0	49.9	64.7	59.4	53.0	40.6	35.0	22.0	10.2	1.4	0.8	0. 1103.6

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400, ALTITUDE 2000, MISSION SEGMENT DESCNT															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.0															
1.8						1									1
1.6		1	1				2				1				5
1.5			1			2									6
1.4		1				4	2	4	3	3					17
1.3	2	1	3	1	2	6	3	2	5	3	2	1			31
1.2	1	1	6	6	6	5	13	7	5	7	3	2	1		67
0.8															
0.7			1			1	2	1	2	4			2	1	14
0.6															
0.5															
0.4															
0.2															
LESS															
SUM	3	4	12	7	6	11	27	15	13	19	10	5	4	1	141
TIME	17.5	10.1	13.1	10.7	13.8	29.9	34.4	27.7	20.8	22.4	13.8	11.3	5.5	0.8	0.4 232.0

MANEUVER NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2400, ALTITUDE 2000, MISSION SEGMENT STEADY															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.6															
1.5								1			1				2
1.4								1							1
1.3								1	1	2	1	1			8
1.2						2	4	9	6	14	7	2	1	2	47
0.8															
0.7				1	1		4	5	2	6	3	1	1		24
0.6							1								1
0.5															
0.4															
0.2															
LESS				1	1	2	11	17	9	22	12	4	2	2	83
SUM															
TIME	31.7	4.8	21.1	24.6	41.4	83.7	112.9	134.5	167.1	109.5	55.1	19.8	8.9	1.3	1.1 837.3

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400, ALTITUDE 2000															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.2															
2.0						2									2
1.8		1	5	3	1	1	2	1	1						15
1.6	8	18	14	8	4	3	4	4	4			1			68
1.5	7	36	21	8	6	6	8	8	4	1	2				109
1.4	33	60	20	6	12	15	12	5	8	6	9	1			187
1.3	192	81	32	17	11	27	16	12	18	14	10	6	1		397
1.2	403	101	57	40	59	38	55	45	34	44	20	8	2	2	912
0.8															
0.7	11	12	13	14	13	14	14	16	15	27	7	5	3	1	169
0.6		4	2	3	1	1	4	3	2						20
0.5					1	2	3	3	3						9
0.4							2								2
0.2								1							1
LESS															
SUM	614	313	164	99	108	111	120	95	89	92	48	21	6	3	1887
TIME	641.3	204.9	161.1	136.9	180.3	263.9	291.5	290.1	266.9	189.0	101.0	42.4	15.9	2.9	1.4 2789.6

TABLE XXVI - Continued

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400. ALTITUDE 4000. MISSION SEGMENT ASCENT																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
1.4															2	
1.3				1	1										8	
1.2	1	2		1			2	1		1						
0.8									1						2	
0.7					1											
0.6																
SUM	1	2		1	2	1	2	1	1	1					12	
TIME	0.5	4.9	7.7	5.9	8.2	11.8	7.1	6.9	7.4	3.4	1.8	0.9	0.	0.	66.6	
MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400. ALTITUDE 4000. MISSION SEGMENT MANUVR																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
1.8															1	
1.6						1										
1.5																
1.4																
1.3							2	1	1						4	
1.2				1			4	5	1	1	1				13	
0.8																
0.7								3	1	1	1				6	
0.6		1						2	1	1					9	
0.5							1								1	
0.4								1							1	
0.2																
SUM		1			1		6	13	4	4	2				31	
TIME	0.	1.1	2.8	1.8	2.1	3.5	8.6	16.2	12.6	9.4	4.8	1.2	0.2	0.3	0.1	64.6
MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400. ALTITUDE 4000. MISSION SEGMENT DESCNT																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
1.3																
1.2								1	3	1					9	
0.8																
0.7										1					1	
0.6									1						1	
0.5																
SUM								1	4	2					7	
TIME	0.	0.	0.1	0.3	0.6	1.9	7.6	4.6	9.2	4.3	3.1	0.2	0.	0.	31.9	
MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400. ALTITUDE 4000. MISSION SEGMENT STEADY																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
1.3																
1.2										2	1				3	
0.8																
SUM										2	1				3	
TIME	0.9	0.	4.9	5.1	13.2	17.8	19.9	28.5	24.8	19.8	7.8	0.9	0.	0.	143.5	
MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400. ALTITUDE 4000																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
1.8															1	
1.6						1										
1.5																
1.4																
1.3					1		2	1	1						6	
1.2	1	2		1	1		6	7	4	5	2				29	
0.8																
0.7					1			3	2	2	1				9	
0.6		1						2	2	1					6	
0.5							1								1	
0.4								1							1	
0.2																
SUM	1	3		1	3	1	8	15	9	9	3				53	
TIME	1.4	6.0	14.4	13.2	24.2	35.0	43.3	56.2	54.0	36.0	17.5	3.3	0.2	0.3	0.1	306.6

TABLE XXVI - Continued

MANEUVER NZ PEAKS FOR VELOCITY VS NZ BY WEIGHT 2400																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.2						2										2
2.0						1		1								2
1.8		2	7	4	2		2	1	1			1				21
1.6	11	45	29	11	9	11	6	6	4	1		1				134
1.5	14	64	37	8	11	13	13	8	6	3	2					179
1.4	48	100	48	13	14	18	14	6	8	6	9	1	1	1		287
1.3	211	145	47	28	20	31	18	18	24	15	10	6	2			575
1.2	657	168	73	53	64	52	68	61	47	50	25	8	2	2	4	1334
0.8																
0.7	17	15	21	14	16	14	14	22	17	29	8	5	3	1		196
0.6		7	2	4	1	2	4	5	4	1						30
0.5		1			1	2	4		3							11
0.4							2	1								3
0.2								1								1
LESS																
SUM	958	547	264	135	138	144	145	129	114	105	55	21	8	4	4	2773
TIME	953.2	300.8	219.2	174.2	226.1	321.8	363.5	371.9	350.7	241.7	124.8	48.5	18.0	3.8	1.8	3720.0
MANEUVER NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2600, ALTITUDE 1000, MISSION SEGMENT ASCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2			1	1												2
0.8																
SUM			1	1												2
TIME	2.9	4.4	2.2	0.2	0.3	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	10.0
MANEUVER NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2600, ALTITUDE 1000, MISSION SEGMENT MANUVR																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																
1.3		1														1
1.2	5	1		1												7
0.8																
0.7								1								1
0.6																
SUM	5	2		1				1								9
TIME	3.4	0.7	0.1	0.1	0.4	1.2	1.1	1.5	0.1	0.	0.	0.	0.	0.	0.	8.4
MANEUVER NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2600, ALTITUDE 1000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4																
1.3		1														1
1.2	5	1	1	2												9
0.8																
0.7								1								1
0.6																
SUM	5	2	1	2				1								11
TIME	7.2	5.0	2.3	0.3	0.7	1.2	1.4	1.8	0.1	0.	0.	0.	0.	0.	0.	20.1
MANEUVER NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2600, ALTITUDE 2000, MISSION SEGMENT ASCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.3																
1.2	1	2			1		1									5
0.8																
0.7	1															1
0.6																
SUM	2	2			1		1									6
TIME	4.7	5.1	2.5	5.4	3.1	2.1	2.0	0.1	0.	0.	0.	0.	0.	0.	0.	25.0

TABLE XXVI - Continued

MANEUVER NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2600. ALTITUDE 2000. MISSION SEGMENT MANUVR															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.6															
1.5		5		3			1								9
1.4		8	8	2	2		1	1							22
1.3		3	1	1	1		2	1							8
1.2		1	2	1	4	2		2							12
0.8															
0.7				1											1
0.6															
SUM		17	11	7	7	2	3	4	1						32
TIME	0.1	4.7	5.3	3.4	3.1	2.1	3.8	2.1	0.6	0.	0.	0.	0.	0.	24.7
MANEUVER NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2600. ALTITUDE 2000. MISSION SEGMENT DESCNT															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.4															
1.3							2	1							3
1.2							1								1
0.8															
0.7				1											1
0.6															
SUM				1		3		1							5
TIME	0.2	0.2	0.	0.3	0.1	0.1	0.7	0.2	0.3	0.	0.	0.	0.	0.	2.1
MANEUVER NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2600. ALTITUDE 2000															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.6															
1.5		5		3			1								9
1.4		8	8	2	2		1	1							22
1.3		3	1	1	1		4	1	1						11
1.2	1	3	2	1	5	2	2	2							18
0.8															
0.7	1			2											3
0.6															
SUM	2	19	11	8	8	2	7	4	2						63
TIME	5.6	9.4	14.4	14.9	14.2	7.6	6.8	2.4	0.9	0.	0.	0.	0.	0.	76.3
MANEUVER NZ PEAKS FOR VFLOCITY VS NZ BY WEIGHT 2600															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
1.6															
1.5		5		3			1								9
1.4		8	8	2	2		1	1							22
1.3		4	1	1	1		4	1	1						12
1.2	6	4	3	3	5	2	2	2							27
0.8															
0.7	1			2					1						4
0.6															
SUM	7	21	12	10	8	2	7	5	2						74
TIME	12.8	14.5	14.7	15.2	15.0	9.5	9.0	4.8	1.0	0.	0.	0.	0.	0.	66.4
MANEUVER NZ PEAKS FOR VELOCITY VS NZ															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.4															
2.2				1	1										2
2.0		1	1	5	1	3	1	2	2	3					19
1.8	1	42	49	11	13	8	6	11	3	2	4	7	1	2	131
1.6	66	419	217	60	42	32	28	17	19	10		1	1		916
1.5	147	939	196	51	39	32	32	29	19	6	10	1	2		1996
1.4	336	723	208	68	65	45	34	32	29	24	16	5	3	4	1589
1.3	1038	927	230	117	107	102	81	63	77	49	27	21	11	2	2873
1.2	2907	1060	423	232	243	218	236	186	199	173	105	43	18	5	5660
0.8															
0.7	94	112	84	56	52	59	67	80	96	97	47	23	11	1	840
0.6	1	19	9	9	8	17	17	16	17	6	5	3	1	1	128
0.5		4	8	4	2	5	8	1	4	1					38
0.4		2	2	3	2	1	6	3	1						20
0.2			4					3							8
LESS		1			1										2
SUM	4150	3849	1431	617	575	523	516	459	454	371	215	105	48	13	13344
TIME	3887.2	1459.6	752.4	498.5	603.4	756.8	886.6	1036.8	1161.5	936.5	589.0	270.3	107.9	27.1	9.812983.4

TABLE XXVII.  $n_x$  PEAKS FOR AIRSPEED VERSUS  $n_x$  BY WEIGHT

NX PEAKS FOR AIRSPEED VS NX BY WEIGHT LESS																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS																
-0.40																
-0.35																
-0.30																
-0.25																
-0.20										1						1
-0.15								1	1				2		3	8
-0.10											1					
0.10	10	8	1	2		1	1					2				25
0.15			1													1
0.20																
0.25																
0.30																
0.35																
0.40																
SUM	10	8	2	2		1	1	1	1	1	3		2		3	35
TIME	38.9	36.6	31.4	21.5	18.9	36.6	45.9	57.3	96.2	38.5	41.7	52.9	77.2	5.4	1.5	520.5

NX PEAKS FOR AIRSPEED VS NX BY WEIGHT 2000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS																
-0.40																
-0.35																
-0.30																
-0.25																
-0.20										1						1
-0.15				1		1	1	2	5	5	1	2			1	19
-0.10	19	21	4	2												46
0.10	4	2														6
0.15																
0.20																
0.25																
0.30																
0.35																
0.40																
SUM	23	23	4	3		1	1	2	5	6	1	2			1	72
TIME	498.7	163.2	99.9	68.1	85.5	94.8	106.4	126.2	151.6	126.9	85.3	28.4	8.2	2.6	0.3	1645.8

NX PEAKS FOR AIRSPEED VS NX BY WEIGHT 2200																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS																
-0.40																
-0.35																
-0.30																
-0.25																
-0.20									1							4
-0.15		1	1	3			3	4	5	9	10	6	10	4	3	59
-0.10																
0.10	125	81	7		1	1	1		1							217
0.15	10	2	1		1											14
0.20	1															1
0.25																
0.30																
0.35																
0.40																
SUM	136	84	9	3	2	1	4	4	7	9	11	6	11	4	4	295
TIME	2383.5	944.5	385.5	219.6	259.0	294.1	361.8	476.6	602.1	529.4	337.2	140.5	44.5	15.2	6.2	6998.7

TABLE XXVII - Continued

NX PEAKS FOR AIRSPEED VS NX BY WEIGHT 2400															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS															
-0.40															
-0.35															
-0.30															
-0.25								1							1
-0.20								2	2	4	1			1	2
-0.15						2	1	3	2	2	2	1		2	10
-0.10															
0.10	34	20	8	3	1	1	1								60
0.15	1	1													2
0.20															
0.25															
0.30															
0.35															
0.40															
SUM	55	21	8	3	1	3	2	3	3	2	4	3	1	3	112
TIME	953.7	300.8	219.2	174.2	226.1	321.8	363.5	371.9	350.7	241.7	124.8	48.5	18.0	3.8	1.8 3720.0

NX PEAKS FOR AIRSPEED VS NX BY WEIGHT 2600															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS															
-0.40															
-0.35															
-0.30															
-0.25															
-0.20															
-0.15								1		1					2
-0.10															
0.10		1													1
0.15															
0.20															
0.25															
0.30															
0.35															
0.40															
SUM		1					1		1						3
TIME	12.8	14.5	16.7	15.2	15.0	9.5	9.0	4.8	1.0	0.	0.	0.	0.	0.	0. 98.4



TABLE XXVIII.  $n_x$  PEAKS FOR AIRSPEED VERSUS  $n_x$  BY ALTITUDE

NX PEAKS FOR AIRSPEED VS NX BY ALTITUDE LESS																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
-0.40																
-0.35																
-0.30																
-0.25																
-0.20																
-0.15																
-0.10																
0.10	1	6	1			1		1							10	
0.15																
0.20																
0.25																
0.30																
0.35																
0.40																
SUM	1	6	1			1		1							10	
TIME	12.4	8.5	3.2	1.9	1.9	4.4	3.4	2.2	3.0	1.9	2.3	0.5	0.	0.	50.9	

NX PEAKS FOR AIRSPEED VS NX BY ALTITUDE 1000																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
-0.40																
-0.35																
-0.30																
-0.25																
-0.20																
-0.15				1				3	1			1	1		6	
-0.10																
0.10	57	22	1			2									82	
0.15	10	4	1		1										16	
0.20																
0.25																
0.30																
0.35																
0.40																
SUM	67	26	2	1	1	2		3	1			1	1		106	
TIME	1078.9	319.0	121.8	60.9	56.7	56.7	51.4	51.3	70.7	63.8	54.5	17.4	5.2	2.3	2009.1	

NX PEAKS FOR AIRSPEED VS NX BY ALTITUDE 2000																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
-0.40																
-0.35																
-0.30																
-0.25																
-0.20																
-0.15		1	1	3		3	6	7	13	15	14	1	1	4	2	
-0.10															7	
0.10	148	101	15	7	1	1	2			2					278	
0.15	3	1	1												7	
0.20	1														1	
0.25																
0.30																
0.35																
0.40																
SUM	154	103	18	10	1	4	8	7	15	17	17	9	13	4	9	
TIME	2786.3	1120.1	592.5	402.3	481.6	609.5	704.2	748.6	851.4	725.1	647.5	217.2	93.7	22.9	7.2	

TABLE XXVIII - Continued

NX PEAKS FOR AIRSPEED VS NX BY ALTITUDE 4000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS																
-0.40																
-0.35																
-0.30																
-0.25																
-0.20																
-0.15										1	2	1			1	5
-0.10		2	2	2		1										7
0.10																
0.15																
0.20																
0.25																
0.30																
0.35																
0.40																
SUM	2	2	2		1					1	2	1			1	12
TIME	9.4	15.9	34.9	33.4	63.3	86.2	125.5	219.5	236.7	144.6	85.1	33.3	8.6	1.9	0.2	1092.5

NX PEAKS FOR AIRSPEED VS NX BY ALTITUDE SUM																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS																
-0.40																
-0.35																
-0.30																
-0.25									1							1
-0.20									1	2	1	1	1		2	8
-0.15			1	1	4		3	6	10	14	16	10	13	4	9	107
-0.10																
0.10	208	131	20	7	2	3	3		1		2					377
0.15	15	5	2		1											23
0.20	1															1
0.25																
0.30																
0.35																
0.40																
SUM	224	137	23	11	3	6	9	10	17	18	19	11	14	4	11	917
TIME	3887.0	1459.6	752.4	498.5	603.4	756.8	886.6	1036.8	1161.5	936.5	589.0	270.3	107.9	27.1	9.81	2983.2

TABLE XXIX.  $n_x$  PEAKS FOR CYCLIC DEFLECTION VERSUS  $n_x$  BY MISSION SEGMENT

NX PEAKS FOR CYCLIC DFLECTN VS NX BY MISS. SEG. ASCENT										
LESS	LESS	-40	-30	-20	-10	10	20	30	40	SUM
-0.40										
-0.35										
-0.30										
-0.25										
-0.20										
-0.15					1					1
-0.10										
0.10	2	15	10	7	2					36
0.15			2							2
0.20										
0.25										
0.30										
0.35										
0.40										
SUM	2	15	12	8	2					39

NX PEAKS FOR CYCLIC DFLECTN VS NX BY MISS. SEG. MANUVR										
LESS	LESS	-40	-30	-20	-10	10	20	30	40	SUM
-0.40										
-0.35										
-0.30										
-0.25										
-0.20		1	1	3	1					6
-0.15	1	11	18	13	16	1				60
-0.10										
0.10	7	54	125	70	30	6				292
0.15		4	6	2	8					20
0.20					1					1
0.25										
0.30										
0.35										
0.40										
SUM	8	70	150	88	57	7				380

TABLE XXIX - Continued

NX PEAKS FOR CYCLIC DFLECTN VS NX BY MISS. SEG. DESCNT

LESS	-40	-30	-20	-10	10	20	30	40	SUM
LESS									
-0.40									
-0.35									
-0.30									
-0.25									
-0.20		1	1						2
-0.15	2	4	14	17	6	1			44
-0.10									
0.10	1	3	19	19	5	1			48
0.15				1					1
0.20									
0.25									
0.30									
0.35									
0.40									
SUM	3	8	34	37	11	2			95

NX PEAKS FOR CYCLIC DFLECTN VS NX BY MISS. SEG. STEADY

LESS	-40	-30	-20	-10	10	20	30	40	SUM
LESS									
-0.40									
-0.35									
-0.30									
-0.25									
-0.20									
-0.15					2				2
-0.10									
0.10				1					1
0.15									
0.20									
0.25									
0.30									
0.35									
0.40									
SUM				3					3

TABLE XXIX - Continued

NX PEAKS FOR CYCLIC DFLECTN VS NX BY MISS. SEG.										
	LESS	-40	-30	-20	-10	10	20	30	40	SUM
LESS										
-0.40										
-0.35										
-0.30										
-0.25					1					1
-0.20		2	2	3	1					8
-0.15	3	15	32	31	24	2				107
-0.10										
0.10	10	72	154	96	38	7				377
0.15		4	8	3	8					23
0.20					1					1
0.25										
0.30										
0.35										
0.40										
SUM	13	93	196	133	73	9				517

TABLE XXX.  $n_y$  PEAKS FOR AIRSPEED VERSUS  $n_y$  BY WEIGHT

NY PEAKS FOR AIRSPEED VS NY BY WEIGHT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS																
-0.40																
-0.35																
-0.30																
-0.25				1												1
-0.20		2						1	1	1	1	1			1	45
-0.15	6				4	4	4	4	3	1	2	1	1			75
-0.10	10	21	10	6												4
0.10				3				1								1
0.15		1														
0.20																
0.25																
0.30																
0.35																
0.40																
SUM	16	24	18	10	4	4	5	8	4	2	3	2	1		1	96
TIME	38.9	36.6	31.4	21.5	18.9	36.6	48.9	37.3	36.7	38.5	41.7	32.9	37.2	3.4	1.5	320.5

NY PEAKS FOR AIRSPEED VS NY BY WEIGHT 2000																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS																
-0.40																
-0.35																
-0.30		1														1
-0.25		1														2
-0.20	14	2			1			1								18
-0.15	193	12	7	7	4	2	1	4	4		1					237
-0.10																
0.10	174	35	25	10	5	5	1	6	5	8		1				275
0.15	4		1	2												7
0.20																
0.25																
0.30																
0.35																
0.40																
SUM	388	51	33	19	10	7	2	11	9	8	1	1				540
TIME	498.7	163.2	99.3	68.1	85.3	94.8	106.4	126.2	151.6	126.9	89.3	28.4	8.2	2.6	0.3	1645.8

TABLE XXX - Continued

NY PEAKS FOR AIRSPEED VS NY BY WEIGHT 2200																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS																
-0.40																
-0.35	1		1													2
-0.30																
-0.25	3	1	1				1									6
-0.20	55	14	2	2	1	2		1				1				78
-0.15	962	199	28	16	8	6	12	13	14	10	3		1			828
-0.10																
0.10	476	298	117	93	48	22	43	29	27	25	16	2	2			1198
0.15	41	14	9		2	1	4	3	1		1	2	2			80
0.20	4	1	2													7
0.25																
0.30																
0.35																
0.40																
SUM	1142	483	160	71	99	31	60	46	42	39	20	5	5			2199
TIME	2983.5	944.5	985.9	219.6	298.0	294.1	361.8	476.6	602.1	929.4	337.2	140.5	44.5	19.2	6.2	6998.7

NY PEAKS FOR AIRSPEED VS NY BY WEIGHT 2400																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS																
-0.40																
-0.35																
-0.30																
-0.25	3						1									4
-0.20	14		1	1				1	1							18
-0.15	228	16	9	4	9	9	3	4	10	1	2	1				289
-0.10																
0.10	143	83	41	24	12	6	13	9	13	9	3	4				368
0.15	3	4	3	2	2	2			1							17
0.20	1					1					1					3
0.25																
0.30																
0.35																
0.40																
SUM	389	103	94	31	23	19	16	14	28	10	6	5				691
TIME	953.2	300.8	219.2	174.2	226.1	321.0	343.5	371.9	396.7	241.7	124.8	48.5	18.0	3.8	1.8	3720.0

NY PEAKS FOR AIRSPEED VS NY BY WEIGHT 2600																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS																
-0.40																
-0.35																
-0.30																
-0.25																
-0.20																
-0.15	1							1								2
-0.10																
0.10		3		1			2	2		2						10
0.15					1											1
0.20																
0.25																
0.30																
0.35																
0.40																
SUM	1	3		1	1	3	2		2							15
TIME	12.8	14.9	16.7	15.2	19.0	9.9	9.0	4.8	1.0	0.	0.	0.	0.	0.	0.	98.4

TABLE XXXI.  $n_y$  PEAKS FOR AIRSPEED VERSUS  $n_y$  BY ALTITUDE

NY PEAKS FOR AIRSPEED VS NY BY ALTITUDE LESS															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS															
-0.40															
-0.35															
-0.30															
-0.25						1									1
-0.20															1
-0.15	3	2	1					2							8
-0.10															
0.10	1	1	2				1								5
0.15															
0.20															
0.25															
0.30															
0.35															
0.40															
SUM	4	3	3			1	2	2							15
TIME	12.4	8.5	3.2	1.9	1.9	4.4	5.4	3.4	7.2	3.0	1.9	2.3	0.5	0.	50.9

NY PEAKS FOR AIRSPEED VS NY BY ALTITUDE 1000															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS															
-0.40															
-0.35			1												1
-0.30															
-0.25	1	1	1												3
-0.20	14	2		1		1									18
-0.15	221	24	14	8	9	4	3	2							281
-0.10															
0.10	400	111	47	23	10	4	6	7	11	16	6				641
0.15	17	7	4	2		1	1				1				33
0.20		1													1
0.25															
0.30															
0.35															
0.40															
SUM	633	144	67	34	15	10	10	9	11	16	7				978
TIME	1078.9	315.0	121.8	60.9	56.7	96.7	51.4	51.3	70.7	69.8	54.5	17.4	9.2	2.3	2009.1

NY PEAKS FOR AIRSPEED VS NY BY ALTITUDE 2000															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS															
-0.40															
-0.35	1														1
-0.30		1													1
-0.25	6	1				1									8
-0.20	69	14	3	3	2			3	1			1			96
-0.15	764	158	29	19	16	9	14	18	29	12	7	2	1		1079
-0.10															
0.10	399	327	144	69	57	35	54	42	39	26	13	8	3		1216
0.15	31	11	9	5	5	2	3	4	2			2	2		76
0.20	5	1	2			1					1				10
0.25															
0.30															
0.35															
0.40															
SUM	1275	513	187	96	80	48	71	67	71	38	21	13	6	1	2487
TIME	2786.3	1120.1	992.5	402.3	481.6	609.5	704.2	768.6	851.4	725.1	447.5	217.2	93.7	22.9	7.2 9830.1

TABLE XXXI - Continued

NY PEAKS FOR AIRSPEED VS NY BY ALTITUDE 4000																
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM	
LESS																
-0.40																
-0.35																
-0.30																
-0.25																
-0.20																
-0.15	1	1				1									3	
-0.10																
0.10	3	1		2	2		2	1		1	2				14	
0.15																
0.20																
0.25																
0.30																
0.35																
0.40																
SUM	4	2		2	2	1	2	1		1	2				17	
TIME	9.4	15.9	34.9	33.4	63.3	86.2	125.5	213.5	236.7	144.6	89.1	33.3	8.6	1.9	0.2	1092.9

NY PEAKS FOR AIRSPEED VS NY BY ALTITUDE SUM															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
LESS															
-0.40															
-0.35	1		1												2
-0.30		1													1
-0.25	7	2	1			1	1								12
-0.20	83	16	3	4	2	2	3	1			1				115
-0.15	989	185	44	27	21	14	17	22	29	12	7	1		1	1371
-0.10	803	440	193	94	69	39	63	50	50	43	21	8	3		1876
0.15	48	18	13	7	5	3	4	4	2		1	2	2		109
0.20	5	2	2			1					1				11
0.25															
0.30															
0.35															
0.40															
SUM	1936	664	257	132	97	60	85	79	82	55	30	13	6		3497
TIME	3887.0	1459.6	752.4	498.5	605.4	756.8	886.6	1036.8	1161.5	936.5	589.0	270.3	107.9	27.1	9,812,982.2

TABLE XXXII.  $n_y$  PEAKS FOR CYCLIC DEFLECTION VERSUS  $n_y$  BY MISSION SEGMENT

NY PEAKS FOR CYCLIC DFLECTN VS NY BY MISS. SEG. ASCENT										
LESS	40	30	20	10	10	20	30	40		SUM
LESS										
-0.40										
-0.35										
-0.30										
-0.25										
-0.20										
-0.15	1									1
-0.10		6			5	23	2			43
0.10										
0.15		23		31	10	2				66
0.20										3
0.25										1
0.30										
0.35										
0.40										
SUM	2	29		41	17	25	2			116



TABLE XXXII - Continued

NY PEAKS FOR CYCLIC DFLECTN VS NY BY MISS. SEG. MANUVR

LESS	LESS	-40	-30	-20	-10	10	20	30	40	SUM
-0.40										
-0.35		1			1					2
-0.30			2	2	4					1
-0.25			3	13	64	29				10
-0.20	8	46	73	169	763	159		1		112
-0.15								6		1224
-0.10	8	61	328	599	564	31				
0.10	1	3	10	30	41	5		5		1596
0.15			1	2	3	2				90
0.20										8
0.25										
0.30										
0.35										
0.40										
SUM	17	113	417	815	1441	228	12			3043

NY PEAKS FOR CYCLIC DFLECTN VS NY BY MISS. SEG. DESCNT

LESS	LESS	-40	-30	-20	-10	10	20	30	40	SUM
-0.40										
-0.35										
-0.30										
-0.25										
-0.20					1					1
-0.15	1	19	14	8	20	5				1
-0.10										63
0.10		5	34	77	57	2				
0.15			2	3	5	2				175
0.20										12
0.25					1					1
0.30										
0.35										
0.40										
SUM	1	20	51	88	84	9				253

TABLE XXXII - Continued

NY PEAKS FOR CYCLIC DFLECTN VS NY BY MISS. SEG. STEADY

LESS	-40	-30	-20	-10	10	20	30	40	SUM
LESS									
-0.40									
-0.35									
-0.30									
-0.25									
-0.20									
-0.15				38	3				41
-0.10				39					39
0.10				3	1				4
0.15				1					1
0.20									
0.25									
0.30									
0.35									
0.40									
SUM				81	4				85

NY PEAKS FOR CYCLIC DFLECTN VS NY BY MISS. SEG. SUM

LESS	-40	-30	-20	-10	10	20	30	40	SUM
LESS									
-0.40									
-0.35		1			1				2
-0.30					1				1
-0.25			3	2	5	2			12
-0.20	1	2	5	13	64	29	1		115
-0.15	10	67	93	182	844	169	6		1371
-0.10									
0.10	8	89	393	684	662	33	5		1876
0.15	1	3	13	35	49	8			109
0.20			2	2	5	2			11
0.25									
0.30									
0.35									
0.40									
SUM	20	162	509	920	1631	243	12		3497

TABLE XXXIII.  $n_x$  PEAKS FOR  $n_x$  VERSUS  $n_z$

		NX PEAKS FOR NX VS NZ														
LESS		-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	0.10	0.15	0.20	0.25	0.30	0.35	0.40	SUM
2.6																
2.4																
2.2								1								1
2.0								3								3
1.8								6								6
1.6								8								8
1.5				1				9		2	1					13
1.4							1	11		6						18
1.3							1	14		14	1					22
1.2							1	17		47	3					68
0.8							2	45		299	18		1			365
0.7								1		8						9
0.6																0
0.5																0
0.4										1						1
0.2																0
LESS																
SUM					1	8	107		377	23	1					517

TABLE XXXIV.  $n_x$  PEAKS FOR  $n_y$  VERSUS  $n_x$

		NX PEAKS FOR NY VS NX														
LESS		-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	0.10	0.15	0.20	0.25	0.30	0.35	0.40	SUM
-0.40																
-0.35																
-0.30																
-0.25																
-0.20									1							1
-0.15									8							8
-0.10								2	100	4	1					107
0.10																
0.15						1	1	374	23	1						377
0.20									23							23
0.25									1							1
0.30																
0.35																
0.40																
LESS																
SUM						1	3	907	5	1						517

TABLE XXXV.  $n_y$  PEAKS FOR  $n_x$  VERSUS  $n_y$

		NY PEAKS FOR NX VS NY														
LESS		-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	0.10	0.15	0.20	0.25	0.30	0.35	0.40	SUM
-0.40																
-0.35																
-0.30																
-0.25																
-0.20																
-0.15																
-0.10																
0.10																
0.15																
0.20																
0.25																
0.30																
0.35																
0.40																
LESS																
SUM																

TABLE XXXVI.  $n_y$  PEAKS FOR  $n_y$  VERSUS  $n_z$

NY PEAKS FOR NY VS NZ															
LESS	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	0.10	0.15	0.20	0.25	0.30	0.35	0.40	SUM
2.6															
2.4															
2.2															
2.0							2								
1.8							1			1					4
1.6							1		3	1					8
1.5					2		16		22	4					45
1.4			1		2		24		37	3					68
1.3					7		35		66	7		1			118
1.2					3		54		114	6		1			178
0.8					13		84		212	15		1			325
0.7		2		10	86	1150		1409	67	8					2731
0.6							3		7	3					13
0.5							2		4	1					7
0.4									2						2
0.2											1				
LESS															1
SUM		2	1	12	113	1371		1876	109	11					3497

TABLE XXXVII.  $n_z$  PEAKS FOR  $n_x$  VERSUS  $n_z$

NZ MANEUVER PEAKS FOR NX VS NZ															
LESS	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	0.10	0.15	0.20	0.25	0.30	0.35	0.40	SUM
2.6															
2.4															
2.2							2								2
2.0							4	15							19
1.8							8	143							151
1.6				1			7	905	3						916
1.5							7	1069	20						1096
1.4					1		11	1333	43	1					1509
1.3					2		14	2701	154	1					2873
1.2							35	9337	286	2					9660
0.8															
0.7							3	810	27						840
0.6							1	125	3						129
0.5								37	2						39
0.4								20							20
0.2								7	1						8
LESS								1	1						2
SUM				1	3	92	12705	540	3						13344

TABLE XXXVIII.  $n_z$  PEAKS FOR  $n_y$  VERSUS  $n_z$

NZ MANEUVER PEAKS FOR NY VS NZ															
LESS	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	0.10	0.15	0.20	0.25	0.30	0.35	0.40	SUM
2.6															
2.4															
2.2								2							2
2.0							1	17		1					19
1.8							2	146		3					151
1.6							2	902	10	1					916
1.5				1			1	1080	12	1					1096
1.4							3	1562	23	1					1589
1.3					1		3	2844	24	1					2873
1.2					1		7	5619	31	2					5660
0.8															
0.7							4	822	12	2					840
0.6								125	3	1					129
0.5								39							39
0.4								20							20
0.2								8							8
LESS								2							2
SUM				1	4	29	13188	119	9						13344

TABLE XXXIX.  $n_{ze}$  PEAKS FOR  $\mu$  VERSUS  $n_{ze}$  BY ALTITUDE AND MISSION SEGMENT

NZE PEAKS FOR MU VS NZE BY ALT LESS MIS-SEG ASCENT										
	LESS	0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.6										
2.4										
2.2										
2.0										
1.8										
1.6										
1.5										
1.4										
1.3			1			2				3
1.2										
0.8										
0.7										
0.6										
0.5										
0.4										
0.2										
LESS										
SUM			1			2				3
TIME	0.	0.2	1.9	0.3	0.7	2.9	2.3	0.	0.	8.3
NZE PEAKS FOR MU VS NZE BY ALT 1000 MIS-SEG ASCENT										
	LESS	0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.6										
2.4										
2.2										
2.0										
1.8										
1.6				1	1	1				3
1.5					2					2
1.4			1		2					3
1.3			3	4	7	1	2			17
1.2		1	3	2	13	11	3			33
0.8										
0.7				1	1	3	1			6
0.6				1		2				3
0.5				2		1				3
0.4										
0.2										
LESS										
SUM		1	7	11	26	19	6			70
TIME	0.	15.1	12.6	20.9	37.2	49.8	18.3	0.3	0.	154.2

TABLE XXXIX - Continued

NZE PEAKS FOR MU VS NZE BY ALT 2000 MIS-SEG ASCENT										
	LESS	0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.6						1				1
2.4										
2.2										
2.0										
1.8					1					1
1.6		1		1	2		2			6
1.5				1	8	8	1			18
1.4				2	5	7	4			18
1.3			5	14	17	20	10			66
1.2		3	14	26	68	60	15			186
0.8										
0.7				14	32	49	11			106
0.6				6	15	16	4			41
0.5					3	7	4			14
0.4				1	1					2
0.2										
LESS										
SUM		4	19	65	152	168	91			459
TIME	0.	77.0	48.8	116.0	373.8	494.9	102.7	0.6	0.	1213.7
NZE PEAKS FOR MU VS NZE BY ALT 4000 MIS-SEG ASCENT										
	LESS	0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.6										
2.4										
2.2										
2.0										
1.8										
1.6										
1.5										
1.4					1					1
1.3						4				4
1.2				5	1	6	1			13
0.8										
0.7					6	4	4			14
0.6					2	2	1			5
0.5						1	1			2
0.4										
0.2										
LESS										
SUM				5	10	17	7			39
TIME	0.	0.6	0.4	7.8	50.5	90.8	23.7	0.	0.	173.7

TABLE XXXIX - Continued

NZE PEAKS FOR MU VS NZE BY ALT LESS MIS-SEG MANUVR										
LESS	0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM	
2.6										
2.4										
2.2										
2.0					1					1
1.8			1		3					4
1.6			1	3	2	1				7
1.5			2	6						8
1.4	1	1	2	3						7
1.3			3	1						4
1.2		1	5		1					7
0.8										
0.7					1	1				2
0.6			1		1					2
0.5			1			1				2
0.4			1							1
0.2										
LESS										
SUM		1	2	17	13	9	3			45
TIME	0.	0.1	6.5	6.7	4.1	3.4	2.3	0.	0.	23.2

NZE PEAKS FOR MU VS NZE BY ALT 1000 MIS-SEG MANUVR										
LESS	0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM	
2.6										
2.4										
2.2										
2.0										
1.8			2	12	3	2				19
1.6	1	6	64	52	21					144
1.5	4	18	96	53	16	3	1			191
1.4	6	56	120	73	22	1				286
1.3	26	189	189	96	35	7	1			543
1.2	145	382	216	84	49	17	1			894
0.8										
0.7	1	10	16	25	20	2				74
0.6	1	4	4		1					10
0.5			1		2	1				4
0.4										
0.2				1	1					2
LESS										
SUM		184	665	716	396	170	33	3		2167
TIME	0.	315.4	635.4	276.8	165.3	88.0	20.5	1.2	0.	1502.6

TABLE XXXIX - Continued

NZE PEAKS FOR MU VS NZE BY ALT 2000 MIS-SEG MANUVR									
LESS	0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.6									
2.4									
2.2									
2.0				1					1
1.8			13	34	16	5			68
1.6	1	18	167	200	51	5			442
1.5	4	61	330	194	66	8			663
1.4	15	154	488	238	93	16	2		1006
1.3	70	466	648	258	155	54	4		1655
1.2	239	1004	791	412	327	111	5		2889
0.8									
0.7	11	26	81	121	157	103			499
0.6	2	5	20	30	65	15			137
0.5		1	6	12	15	6	5		45
0.4				1	5	1			7
0.2			1	4	3	1			9
LESS									
SUM	342	1735	2545	1505	953	325	16		7421
TIME	0.	836.8	1479.1	909.5	693.1	732.0	299.6	12.5	0. 4962.6

NZF PEAKS FOR MU VS NZE BY ALT 4000 MIS-SEG MANUVR									
LESS	0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.6									
2.4									
2.2									
2.0									
1.8									
1.6					1				1
1.5				1					1
1.4									
1.3		3	2	1	6				12
1.2	1	4	5	3	18	4			35
0.8									
0.7			2		6	10			18
0.6				1	5	3			9
0.5					1	2			3
0.4									
0.2									
LESS				1	1				2
SUM	1	7	10	6	38	19			81
TIME	0.	1.7	5.0	4.2	12.6	81.6	35.1	0.8	0. 141.0



TABLE XXXIX - Continued

NZE PEAKS FOR MU VS NZE BY ALT LESS MIS-SEG DESCNT										
	LESS	0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.6										
2.4										
2.2										
2.0										
1.8										
1.6										
1.5										
1.4										
1.3										
1.2					1	1	2			4
0.8						1	2			3
0.7										
0.6										
0.5										
0.4										
0.2										
LESS					1	2	4			7
SUM										
TIME	0.	0.8	1.3	1.0	1.1	1.9	3.4	0.	0.	9.6

NZE PEAKS FOR MU VS NZE BY ALT 1000 MIS-SEG DESCNT										
	LESS	0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.6										
2.4										
2.2										
2.0										
1.8										
1.6					1					1
1.5										
1.4				1	2		1			4
1.3				1	1	1	1			3
1.2			1	1	5	4	2	1		14
0.8			7	2	4	12	2	1		28
0.7										
0.6				1	2	3		1		7
0.5						3	3			6
0.4					1	1				2
0.2										
LESS										
SUM			8	6	15	24	9	3		65
TIME	0.	22.8	22.8	20.0	31.4	36.3	42.3	4.8	0.	180.4

TABLE XXXIX - Continued

NZE PEAKS FOR MU VS NZE BY ALT 2000 MIS-SEG DESCNT										
	LESS	0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.6										
2.4										
2.2										
2.0										
1.8				1		1	1			3
1.6				2	2	7	2			13
1.5				2	3	14	3	1		23
1.4			1	1	9	19	17			47
1.3			3	4	12	39	39	1		92
1.2		2	2	8	54	87	42	9		200
0.8										
0.7		1	2	3	21	63	50	4		144
0.6		1		2	20	37	28	2		98
0.5				2	3	13	10	4		32
0.4					9	4		1		14
0.2					4		1			9
LESS						1				1
SUM		4	8	25	137	285	187	18		664
TIME	0.	65.9	52.3	68.2	163.7	447.7	386.2	22.1	0.	1206.2

NZE PEAKS FOR MU VS NZE BY ALT 4000 MIS-SEG DESCNT										
	LESS	0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.6										
2.4										
2.2										
2.0										
1.8										
1.6										
1.5										
1.4										
1.3					3	1				4
1.2						5	6			11
0.8										
0.7						1	7			8
0.6						5	4			9
0.5										
0.4										
0.2										
LESS					3	12	17			32
SUM					3	12	17			32
TIME	0.	0.	0.	0.2	2.9	63.1	78.9	2.1	0.	147.2

TABLE XXXIX - Continued

NZE PEAKS FOR MU VS NZE BY ALT										
	LESS	0.0	0.05	0.10	0.15	0.20	MIS-SEG	0.30	0.35	SUM
2.6										
2.4										
2.2										
2.0										
1.8										
1.6										
1.5										
1.4										
1.3										
1.2						2				2
0.8										
0.7										
0.6										
0.5										
0.4										
0.2										
LESS										
SUM						2				2
TIME	0.	1.5	0.	0.	1.1	7.2	0.	0.	0.	9.8

NZE PEAKS FOR MU VS NZE BY ALT 1000										
	LESS	0.0	0.05	0.10	0.15	0.20	MIS-SEG	0.30	0.35	SUM
2.6										
2.4										
2.2										
2.0										
1.8										
1.6										
1.5					1					1
1.4										
1.3						2	1			3
1.2						4	8			12
0.8										
0.7		3				1	6			10
0.6										
0.5		1				1				2
0.4										
0.2										
LESS										
SUM		4			1	8	15			28
TIME	0.	34.6	6.8	0.	3.6	47.2	79.7	0.	0.	171.9

TABLE XXXIX - Continued

NZE PEAKS FOR MU VS NZE BY ALT									
	2000	MIS-SEG			STEADY				
LESS	0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.6									
2.4									
2.2									
2.0									
1.8									
1.6									
1.5									
1.4					1	1			2
1.3					1	1			2
1.2	2				5	8			15
0.8	5	2		5	60	56	4		132
0.7				4	75	72	1		152
0.6	2			2	22	18	1		45
0.5					1	2			3
0.4									
0.2									
LESS									
SUM	9	2		11	165	158	6		351
TIME	0.	164.0	24.6	11.6	161.9	1113.4	951.9	20.4	0. 2447.7

NZE PEAKS FOR MU VS NZE BY ALT									
	4000	MIS-SEG			STEADY				
LESS	0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM
2.6									
2.4									
2.2									
2.0									
1.8									
1.6									
1.5									
1.4									
1.3									
1.2					7	4			11
0.8									
0.7				1	1	5	8		15
0.6						8	1		9
0.5									
0.4									
0.2									
LESS									
SUM				1	1	20	13		35
TIME	0.	1.5	0.2	2.9	43.3	373.0	209.2	0.5	0. 630.6

TABLE XXIX - Continued

NZE PEAKS FOR MU VS NZE										
LESS	0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35	SUM	
2.6										
2.4										
2.2										
2.0				1	2					3
1.8			17	48	23	8				96
1.6	3	24	236	260	83	10				616
1.5	8	79	433	269	105	17	2			913
1.4	22	213	622	331	143	40	2			1373
1.3	98	671	865	401	275	119	7			2436
1.2	396	1419	1060	644	650	271	16			4456
0.8										
0.7	16	38	119	213	388	275	6			1055
0.6	6	9	34	70	167	77	3			366
0.5	1	1	12	19	43	27	9			112
0.4			2	11	9	1	1			24
0.2			1	9	4	2				16
LESS				1	2					3
SUM	550	2454	3401	2277	1894	847	46			11469
TIME	0.	1538.2	2297.0	1446.0	1746.2	3633.8	2256.1	65.2	0.	12983.4

TABLE XL.  $n_{ze}$  PEAKS FOR AIRSPEED VERSUS  $n_{ze}$  BY ALTITUDE AND MISSION SEGMENT

NZE PEAKS FOR VEL VS NZE BY ALT LESS MI-SEG ASCENT															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	126	SUM
2.6															
2.4															
2.2															
2.0															
1.8															
1.6															
1.5															
1.4															
1.3	1						1	1							3
1.2															
0.9															
0.7															
0.6															
0.5															
0.4															
0.2															
LESS															
SUM	1					1		1							3
TIME	2.1	0.3	0.3	0.3	0.1	0.6	1.1	0.6	0.8	1.4	0.7	0.	0.	0.	8.3

TABLE XL - Continued

NZE PEAKS FOR VEL VS NZE BY ALT 1000 MIS-SEG ASCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.6																
2.4																
2.2																
2.0																
1.8																
1.6		1	1			1										3
1.5																2
1.4		1	1		1											3
1.3	3	4	3	2	2	1					1		1			17
1.2	4	2	3	6	4	1	2	6	4		1					33
0.8																0
0.7		1	1			1		2		1						6
0.6		1					2		2							3
0.5		2				1										3
0.4																
0.2																
LESS SUM	8	11	11	8	7	5	4	8	4	1	2		1			70
TIME	27.9	22.1	19.8	10.8	11.7	12.8	13.4	13.0	13.6	6.3	9.9	2.8	1.8	0.	0.	100.9

NZE PEAKS FOR VEL VS NZE BY ALT 2000 MIS-SEG ASCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.6																
2.4																
2.2																
2.0						1										1
1.8					1											1
1.6	1	1	1	1						1			1			6
1.5			4	3	2	3	1	2	1	1						18
1.4		2	4	1	1	2		2	2	1			3			18
1.3	5	14	7	6	4	5	9	5	2	6	3					68
1.2	17	27	30	18	25	13	22	14	11	6	9					186
0.8																
0.7		15	15	10	9	14	15	12	9	9	1		1			106
0.6		8	7	2	4	4	1	11	1	1			2			41
0.5			2	1			3	3	1	4						14
0.4		1				1										2
0.2																
LESS SUM	23	60	70	43	43	43	51	49	27	29	12		4			489
TIME	126.9	127.9	139.1	119.8	139.4	137.9	147.6	104.0	79.9	99.3	21.1	9.9	1.9	0.3	0.	1213.7

NZE PEAKS FOR VEL VS NZE BY ALT 4000 MIS-SEG ASCENT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.6																
2.4																
2.2																
2.0																
1.8																
1.6																
1.5						1										1
1.4						1										4
1.3						1		2								13
1.2	1	4		1		1	4	2		1						13
0.8																
0.7			1	3	2	1		2	3	1		1				14
0.6				1	1			2		1						5
0.5								1		1						2
0.4																
0.2																
LESS SUM	1	4	1	3	3	2	6	7	3	4		1				30
TIME	1.8	7.8	17.0	17.7	21.9	24.0	20.7	24.2	22.0	11.1	9.4	0.9	0.	0.	0.	173.7

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TABLE XL - Continued

NZE PEAKS FOR VEL VS NZE BY ALT LESS MIS-SEG MANUVR																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.6																
2.4																
2.2																
2.0							1									
1.8		1				1		2								1
1.6		1	2		1	1			1			1				4
1.5		3	3		2											7
1.4	2	2	3													8
1.3		3		1												7
1.2	1	3				1										4
0.8																7
0.7								1		1						2
0.6		1					1									2
0.5		1									1					2
0.4		1														1
0.2																
LESS																
SUM	3	10	8	1	3	3	2	3	1	1	1	1				45
TIME	6.6	7.3	2.1	0.9	1.0	0.6	0.9	1.0	1.0	0.8	0.7	0.7	0.	0.	0.	23.2
NZE PEAKS FOR VEL VS NZE BY ALT 1000 MIS-SEG MANUVR																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.6																
2.4																
2.2																
2.0																
1.8		3	7	2	2	2		1		1	1					19
1.6	8	64	39	8	5	10	6	2	2							144
1.5	24	96	35	10	8	7	5	3	3	1		1		1		191
1.4	69	127	48	14	8	5	7	5	2				1			286
1.3	228	184	43	29	16	13	4	13	8		1	1	1			543
1.2	538	208	55	18	12	17	11	9	15	5	3	2	1			894
0.8																
0.7	11	16	15	5	9	8	4	3	1	1	1					74
0.6	5	4				1										10
0.5		1					1		1			1				4
0.4																
0.2			1				1									2
LESS																
SUM	883	703	245	86	60	63	39	33	32	8	6	5	3	1		2167
TIME	963.2	272.1	92.7	39.4	33.7	28.8	22.2	19.5	13.4	8.1	5.8	2.2	1.1	0.3	0.3	1502.6
NZE PEAKS FOR VEL VS NZE BY ALT 2000 MIS-SEG MANUVR																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.6						1										1
2.4						2										3
2.2																
2.0																
1.8		14	20	9	8		4	4	3	3	1					68
1.6	24	175	125	40	28	16	14	11	5	3	1					442
1.5	70	337	130	33	24	20	20	13	8	5	2					663
1.4	178	495	148	41	48	37	22	12	10	7	7		1	1		1006
1.3	558	641	154	57	48	53	34	31	37	17	7	1	1	1	2	1635
1.2	1274	778	199	111	117	90	89	72	68	32	21	13	5	1	3	2899
0.8																
0.7	37	83	57	36	34	30	41	41	58	53	19	8	2			499
0.6	7	22	14	10	8	10	14	23	17	6	3	3				137
0.5	1	7	4	2	5	5	6		5	1	3	4	2			43
0.4			1				3	2	1							7
0.2		1	2	2	1		1	1			1					9
LESS																
SUM	2149	2553	854	341	317	264	244	210	212	147	65	41	16	3	5	7421
TIME	2349.0	908.5	337.6	181.1	190.6	195.9	194.6	175.4	163.0	144.9	71.9	32.3	12.9	3.4	1.8	4962.5

TABLE XL - Continued

NZE PEAKS FOR VEL VS NZE BY ALT 4000 MIS-SEG MANUVR																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.6																
2.4																
2.2																
2.0																
1.8																
1.6																
1.5							1									1
1.4			1													1
1.3		3	2		1			4	1	1						12
1.2		5	5	1	1	2		7	6	4	3	1				35
0.8																
0.7			2				1	3	2	3	4	3				18
0.6						1		2	1	3	1					9
0.5								1				2				3
0.4																
0.2										1						2
LESS																
SUM	8	11	1	1	4	1	9	17	8	10	6	5				61
TIME	6.7	4.5	5.2	3.8	5.8	9.9	14.2	33.4	28.6	17.0	7.4	3.3	0.5	0.7	0.1	141.0

NZE PEAKS FOR VEL VS NZE BY ALT LESS MIS-SEG DESCNT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.6																
2.4																
2.2																
2.0																
1.8																
1.6																
1.5																
1.4																
1.3					1		1			1	1					4
1.2						1				1	1					3
0.8																
0.7																
0.6																
0.5																
0.4																
0.2																
LESS				1		1	1			2	2					7
SUM	2.1	1.0	0.4	0.4	0.3	0.7	0.6	0.3	0.4	0.7	0.5	1.7	0.5	0.	0.	9.6

NZE PEAKS FOR VFL VS NZE BY ALT 1000 MIS-SEG DESCNT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.6																
2.4																
2.2																
2.0																
1.8						1										1
1.6																
1.5			1			2				1						4
1.4			1								1					3
1.3		1	1	2	3		3	1		1	1			1		14
1.2		7	3	1	1	1	5	2	2	3	1		1		1	28
0.8																
0.7			1	2			1	1	1							7
0.6										3		3				6
0.5																2
0.4																
0.2																
LESS																
SUM	8	7	6	4	4	6	7	5	6	2	5	1	1	2	1	65
TIME	46.5	20.8	13.2	9.7	8.5	9.5	8.3	9.0	11.0	11.1	18.4	8.0	2.3	2.0	2.1	180.4



TABLE XL - Continued

NZE PEAKS FOR VEL VS NZE BY ALT 2000 MIS-SEG DESCNT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.6																
2.4																
2.2																
2.0																
1.8		1				1							1			3
1.6		2	2			1	2	2	3			1				13
1.5		2	2		1	1	4	4	2				1			23
1.4	1	1	5	1	3	1	8	8	7	7	2					47
1.3	3	5	4	3	5	10	13	12	6	13	6	9	2		1	92
1.2	4	9	23	17	19	20	32	20	13	21	11	4	2	1	4	200
0.8																
0.7	3	5	5	6	11	9	17	12	29	18	16	7	4	1	1	144
0.6	1	3	7	6	7	10	9	7	15	13	3	4	3	2		90
0.5		2		3		4	4	3	3	1	2	7	3			32
0.4			7	2		1	3						1			14
0.2			2	1	1			1								9
LESS						1										1
SUM	12	30	37	39	47	38	94	71	78	73	44	32	17	4	6	644
TIME	121.0	70.9	70.3	53.3	55.4	88.4	113.2	124.1	138.9	146.0	112.4	62.9	39.4	10.0	4.0	1206.2

NZE PEAKS FOR VEL VS NZE BY ALT 4000 MIS-SEG DESCNT																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.6																
2.4																
2.2																
2.0																
1.8																
1.6																
1.5																
1.4																
1.3				2	2											4
1.2							1	1	3	1	2	3				11
0.8																
0.7								1	1	2	2		2			8
0.6						2		2	2		1		2			9
0.5																
0.4																
0.2																
LESS				2	2	2	1	4	6	3	5	3	4			32
SUM	0.	0.2	0.8	0.9	2.3	7.0	14.9	22.9	34.4	27.4	21.9	9.6	4.3	1.0	0.1	147.2

NZE PEAKS FOR VEL VS NZE BY ALT LESS MIS-SEG STEADY																
	LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.6																
2.4																
2.2																
2.0																
1.8																
1.6																
1.5																
1.4																
1.3																
1.2						1	1									2
0.8																
0.7																
0.6																
0.5																
0.4																
0.2																
LESS						1	1									2
SUM	1.5	0.	0.3	0.0	0.4	2.9	2.0	1.4	0.	0.	0.	0.	0.	0.	0.	9.8

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TABLE XL - Continued

NZE PEAKS FOR VFL VS NZE BY ALT 1000 MIS-SEG STEADY															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.6															
2.4															
2.2															
2.0															
1.8															
1.6															
1.5															
1.4				1											1
1.3								1	1		1				3
1.2					1	1			3	3	4				12
0.8															
0.7	3						1		3	1	2				10
0.6															
0.5	1							1							2
0.4															
0.2															
LESS															
SUM	4			1		1	2	2	7	4	7				28
TIME	41.4	0.	0.2	1.1	2.9	5.6	7.6	9.8	12.7	38.4	26.4	5.1	0.7	0.	171.9

NZE PEAKS FOR VEL VS NZE BY ALT 2000 MIS-SEG STEADY															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.6															
2.4															
2.2															
2.0															
1.8															
1.6															
1.5															
1.4								1			1				2
1.3								1			1				2
1.2	2							1	4	3	1				15
0.8	7		1	2	3	8	3	20	21	19	8		8	4	132
0.7															
0.6				2	2	5	10	27	37	29	22	9	4	1	182
0.5	2		1		3	1	4	7	9	8	7	1	2		48
0.4									1	1		1			3
0.2															
LESS															
SUM	11		2	4	8	14	35	57	73	63	49	16	14	5	391
TIME	189.5	12.9	45.7	54.2	96.3	167.7	298.9	395.1	481.6	398.8	248.1	112.2	39.3	9.8	1.4 2047.8

NZE PEAKS FOR VEL VS NZE BY ALT 4000 MIS-SEG STEADY															
LESS	40	60	70	75	80	85	90	95	100	105	110	115	120	124	SUM
2.6															
2.4															
2.2															
2.0															
1.8															
1.6															
1.5															
1.4															
1.3															
1.2					1	1	2	3		3	1				11
0.8															
0.7		1	1		1	1	1	4	2	1	3				15
0.6															
0.5					1	3	3	1			1				9
0.4															
0.2															
LESS															
SUM		1	1		2	2	6	7	5	3	2	4			35
TIME	1.7	3.4	11.9	11.0	33.4	45.3	75.7	133.4	151.7	89.1	50.5	19.5	3.8	0.2	630.6

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TABLE XL - Continued

	NZE PEAKS FOR VEL VS NZE													SUM		
	LESS	40	60	70	75	80	85	90	95	100	105	110	115		120	124
2.6																
2.4																
2.2																
2.0						2	1									3
1.8		19	27	12	11	6	4	7	3	4	2		1			96
1.6	33	244	170	49	34	29	23	15	11	4	1	3				614
1.5	94	441	176	47	39	31	32	22	14	8	5	1	2	1		913
1.4	251	828	209	57	60	44	37	29	21	15	10	1	2	1		1373
1.3	804	854	215	104	77	83	68	70	57	43	23	24	9	2	3	2434
1.2	1858	1041	313	175	182	159	180	155	149	117	66	30	17	6	8	4456
0.8																
0.7	54	124	97	62	68	70	98	106	147	117	69	27	12	3	1	1055
0.6	15	39	29	19	24	29	37	55	49	32	18	11	7	2		364
0.5	2	13	7	6	5	10	15	9	11	8	6	15	5			112
0.4		2	8	2	2	2	6	2	1				1			24
0.2		1	5	3	2		2	2			1					16
LESS		1				1	1	1								3
SUM	3111	3407	1256	536	502	466	503	473	463	348	209	112	56	15	12	11469
TIME	3887.1	1459.6	752.4	498.5	603.4	756.8	886.6	1036.8	1161.5	936.5	589.0	270.3	107.9	27.1		9,812983,3

## LITERATURE CITED

1. Clay, Larry E., Braun, Joseph F., Chestnutt, David, and Bartek, Louis, UH-1B HELICOPTER FLIGHT LOADS INVESTIGATION PROGRAM, Technology Incorporated; USAAVLABS Technical Report 66-46, U.S. Army Aviation Materiel Laboratories, Fort Eustis, Virginia, May 1966, AD 634502.
2. Braun, Joseph F., Giessler, F. Joseph, Chestnutt, David, and Bartek, Louis R., CH-54A SKYCRANE HELICOPTER FLIGHT LOADS INVESTIGATION PROGRAM, Technology Incorporated; USAAVLABS Technical Report 66-58, U.S. Army Aviation Materiel Laboratories, Fort Eustis, Virginia, June 1966, AD 638364.
3. Braun, Joseph F., and Giessler, F. Joseph, CH-47A CHINOOK FLIGHT LOADS INVESTIGATION PROGRAM, Technology Incorporated; USAAVLABS Technical Report 66-68, U.S. Army Aviation Materiel Laboratories, Fort Eustis, Virginia, July 1966, AD 640142.
4. Giessler, F. Joseph, and Braun, Joseph F., FLIGHT LOADS INVESTIGATION OF COMBAT ARMED AND ARMORED CH-47A HELICOPTERS OPERATING IN SOUTHEAST ASIA, Technology Incorporated; USAAVLABS Technical Report 68-1, U.S. Army Aviation Materiel Laboratories, Fort Eustis, Virginia, March 1968, AD 671672.
5. Giessler, F. Joseph, and Braun, Joseph F., FLIGHT LOADS INVESTIGATION OF CARGO AND TRANSPORT CH-47A HELICOPTERS OPERATING IN SOUTHEAST ASIA, Technology Incorporated; USAAVLABS Technical Report 68-2, U.S. Army Aviation Materiel Laboratories, Fort Eustis, Virginia, April 1968, AD 672842.
6. Giessler, F. Joseph, Nash, John F., and Rockafellow, Ronald I., FLIGHT LOADS INVESTIGATION OF AH-1G HELICOPTERS OPERATING IN SOUTHEAST ASIA, Technology Incorporated; USAAVLABS Technical Report 70-51, U.S. Army Aviation Materiel Laboratories, Fort Eustis, Virginia, September 1970, AD 878039.
7. Giessler, F. Joseph, Nash, John F., and Rockafellow, Ronald I., FLIGHT LOADS INVESTIGATION OF CH-54A HELICOPTERS OPERATING IN SOUTHEAST ASIA, Technology Incorporated; USAAVLABS Technical Report 70-73, U.S. Army Aviation Materiel Laboratories, Fort Eustis, Virginia, January 1971, AD 881238.
8. von Mises, Richard, THEORY OF FLIGHT, McGraw Hill Book Company, Inc., New York, 1945, p. 11.